



# Competition and Cooperation Between Fintech Companies and Traditional Banks

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**Abstract.** The rapid advancement of financial technology (fintech) has significantly disrupted the traditional banking sector, introducing innovative solutions that enhance efficiency, accessibility, and user experience. Fintech companies have distinguished themselves from conventional banks by leveraging cutting-edge technologies such as blockchain, and big data analytics to deliver faster and more convenient financial services. This paper examines the competitive dynamics between fintech firms and traditional banks across three key dimensions: payment systems, credit services, and trust mechanisms. While fintech companies excel in agility, cost-effectiveness, and customer-centric innovations, traditional banks maintain competitive advantages in regulatory compliance, risk management, and established customer trust. Based on the analysis, this paper provides recommendations for fintech companies, traditional banks, and policymakers. Fintech firms should strengthen regulatory adherence and cybersecurity measures, while banks must accelerate digital transformation to remain competitive. Regulatory bodies should adopt a balanced approach—fostering innovation while ensuring financial stability and consumer protection. This study contributes to the ongoing discourse on the future of finance, emphasizing the importance of collaboration in shaping a sustainable digital economy.

**Keywords:** FinTech Company, Traditional Bank, Financial Services, Cooperation

## 1 Introduction

The rapid advancement of financial technology (FinTech) has fundamentally reshaped the financial services industry, particularly in how consumers interact with financial systems. FinTech firms such as PayPal have disrupted traditional banking models by pioneering digital payment solutions, including digital wallets and frictionless online transactions. These innovations have reduced consumer dependence on conventional credit card transactions, thereby eroding a key revenue stream for traditional banks through diminished fee income. This shift underscores the need to examine the evolving relationship between FinTech disruptors and incumbent financial institutions, particularly the potential for collaboration that could strengthen the overall financial ecosystem.

While prior research has addressed this issue through ecosystem theory, existing studies often overlook the accelerating role of emerging technologies, such as artificial intelligence (AI), in redefining competitive and cooperative dynamics. This paper seeks

to bridge this gap by systematically analyzing the interplay between FinTech companies and traditional banks. The analysis begins by exploring the competitive tensions between the two sectors, followed by an assessment of their respective strengths. Case studies of successful partnerships are then examined to identify viable pathways for synergy. Finally, the paper offers practical recommendations for traditional banks, FinTech firms, and regulators to foster mutually beneficial cooperation.

By integrating technological advancements into the ecosystem framework, this study provides a more nuanced understanding of how FinTech and traditional finance can coexist and collaborate. The findings aim to inform strategies that enhance financial market resilience while promoting innovation and consumer welfare.

## **2 Competition Between FinTech Firms and Traditional Banks**

### **2.1 Payment Sector: Efficiency and Accessibility**

FinTech firms have significantly outperformed traditional banks in payment services by offering faster and more convenient solutions. Companies such as PayPal have streamlined online transactions, including cross-border transfers, while maintaining lower transaction fees. This competitive advantage has attracted a substantial customer base away from traditional banking systems, particularly in credit card transactions. In contrast, conventional banks face challenges due to complex user interfaces and stringent regulatory frameworks, which hinder their ability to adapt swiftly to market demands.

### **2.2 Lending Practices: Innovation vs. Rigidity**

FinTech companies leverage advanced algorithms and big data analytics to assess creditworthiness, enabling them to serve underserved segments such as small businesses and individuals with limited credit histories. Their agile lending models contrast sharply with traditional banks, which adhere to slower, more rigid internal procedures and risk assessment protocols. While FinTech firms prioritize inclusivity and speed, traditional banks emphasize caution and regulatory compliance, creating a clear distinction in their lending approaches.

### **2.3 Consumer Trust and Market Perception**

The two sectors differ markedly in brand perception and trust mechanisms. FinTech firms appeal to younger, tech-savvy consumers through innovative, user-friendly platforms and enhanced accessibility. However, they often face scrutiny regarding data privacy, cybersecurity, and long-term financial stability. In contrast, traditional banks benefit from established reputations and institutional trust, making them the preferred choice for high-value transactions and risk-averse customers. This dichotomy highlights a competitive landscape where FinTech firms excel in innovation, while traditional banks retain an edge in reliability and trust.

The competition between FinTech firms and traditional banks spans multiple dimensions, including technological efficiency, customer reach, and trust. While FinTech disruptors challenge incumbents with innovation and operational simplicity, traditional banks maintain competitive advantages in credibility and capital strength. This dynamic interplay will continue to shape the evolution of financial services, with implications for market structure and consumer behavior.

### **3 Comparative Advantages of FinTech Firms and Traditional Banks**

#### **3.1 The Advantages of FinTech Firms**

FinTech companies are characterized by their ability to leverage cutting-edge technologies—such as AI, big data analytics, and cloud computing—to deliver highly personalized and efficient financial services. By employing intuitive digital interfaces and streamlined onboarding processes, they significantly enhance user experience compared to traditional institutions. For example, firms like Revolut and Ant Group utilize AI-driven algorithms to provide real-time payment processing, dynamic currency exchange, and tailored investment recommendations, catering especially to digitally native consumers [1].

A key competitive advantage lies in their operational model: FinTech typically maintains lower overhead costs due to digital-only infrastructures, enabling them to offer reduced fees and more competitive pricing. This cost efficiency, combined with agile development cycles, allows them to rapidly adapt to market demands and regulatory changes. However, their reliance on technology also introduces risks, such as cybersecurity vulnerabilities and potential systemic instability during large-scale adoption.

#### **3.2 The Advantages of Traditional Banks**

In contrast, traditional banks possess entrenched advantages rooted in financial stability, institutional trust, and regulatory compliance [2]. Their long-standing reputations attract high-quality creditors and risk-averse customers, particularly for large-scale transactions. Regulatory frameworks, such as capital adequacy requirements (e.g., Basel III) and government-backed deposit insurance schemes, reinforce their role as custodians of systemic financial security.

Traditional banks dominate sectors requiring sophisticated risk management, such as mortgage lending and corporate financing, where their access to central bank liquidity and extensive deposit bases provides unparalleled capital strength. For instance, their ability to underwrite long-term loans relies on stable funding sources, which is a capability that most FinTech lacks. Nevertheless, their bureaucratic structures often hinder innovation, resulting in slower adoption of digital tools and higher operational costs passed on to consumers.

The institutional duality characterizing FinTech firms and traditional banks underscores a foundational antinomy between disruptive financial technologies and stability-

preserving banking conventions. While FinTech excels in customer-centric agility, traditional institutions remain indispensable for high-trust, capital-intensive services. Future collaboration could merge these strengths, with banks adopting FinTech's technological prowess and FinTech integrating institutional safeguards.

## 4 Case Studies

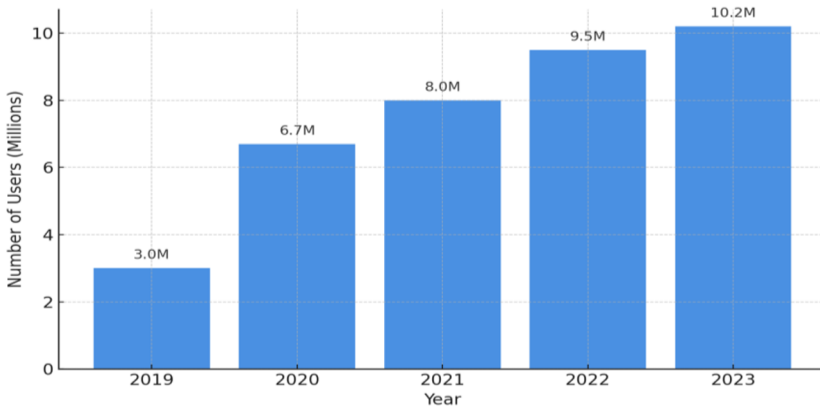
### 4.1 Apple and Goldman Sachs-The Lunch of Apple Card

A notable example of successful collaboration between FinTech firms and traditional financial institutions is the strategic partnership between Apple Inc. and Goldman Sachs, which culminated in the launch of the Apple Card in 2019. This initiative marked a significant transformation in consumer credit services by integrating cutting-edge technology with established banking infrastructure. Unlike conventional credit cards that often involve cumbersome application processes and opaque fee structures, the Apple Card seamlessly integrates with Apple Wallet on IOS devices, offering a fully digital payment experience. Apple contributed its technological ecosystem, user interface expertise, and brand equity, while Goldman Sachs provided the credit underwriting and risk management capabilities.

This collaboration effectively addressed several pain points associated with traditional credit card services, including lengthy approval times, lack of fee transparency, and suboptimal user experiences. The Apple Card introduced innovative features such as real-time transaction notifications, a daily cashback system, and intuitive spending categorization. These enhancements proved highly attractive to consumers, as evidenced by the acquisition of over 6.7 million U.S. cardholders within the first year of operation [3]. This robust adoption rate underscores the strong market demand for streamlined, customer-centric financial products.

From Goldman Sachs' perspective, this partnership yielded substantial benefits. First, it provided a stable source of interest income by significantly expanding the bank's consumer credit portfolio [4]. Apple's vast customer base enabled rapid scaling of digital card issuance, thereby increasing Goldman Sachs' interest-bearing assets. Second, the collaboration allowed Goldman Sachs to access Apple's demographic of tech-savvy consumers, thereby diversifying its revenue streams and strengthening its position in the retail banking sector [4].

As illustrated in Figure 1, Apple Card users grew steadily from 3 million in 2019 to 10.2 million by 2023 (CNBC, 2023). This growth translated into considerable financial gains for Goldman Sachs. With an average card balance of \$1,200 per user and a net interest margin of approximately 7%, the bank generated an estimated \$2.5 billion in interest revenue by 2022. Furthermore, transaction fees from Apple Card usage contributed an additional \$3 billion in revenue during the same period. These figures demonstrate the mutually beneficial nature of this FinTech-bank partnership.



**Fig. 1.** The Amount of Apple Card Users from 2019 to 2023.

#### 4.2 The WeBank Innovation between Tencent and China Merchants Bank

A seminal example of successful FinTech-bank collaboration emerged in 2014 through the joint establishment of WeBank by Tencent Holdings and China Merchants Bank. As China's first fully digital bank, WeBank pioneered a branchless banking model that leveraged Tencent's technological infrastructure and ubiquitous WeChat platform. This strategic integration embedded core banking services—including account opening, funds transfer, and credit applications—directly within the WeChat ecosystem, eliminating the need for standalone banking applications.

This innovation addressed a critical challenge in China's financial sector: consumer resistance to downloading multiple banking apps. By seamlessly integrating financial services into an existing high-usage platform, the partnership achieved remarkable market penetration, attracting over 120 million users within its initial years of operation. The platform's success demonstrates how digital-native solutions can overcome traditional adoption barriers in emerging financial markets.

Technologically, WeBank distinguished itself through its application of big data analytics and AI-driven credit assessment models. These systems enabled microloan services for underserved segments, particularly small businesses and individuals lacking conventional credit histories. By analyzing alternative data sources from Tencent's ecosystem—including social media activity and digital payment patterns—WeBank developed more inclusive risk evaluation frameworks while maintaining robust default rates below industry averages.

For China Merchants Bank, this collaboration provided access to Tencent's vast user base of over 1.2 billion WeChat users, significantly expanding its retail banking presence. The partnership also enhanced credit modeling capabilities through data synergies and established the bank as an early leader in China's digital banking sector.

The WeBank case exemplifies how traditional financial institutions can leverage FinTech partnerships to achieve both financial inclusion and commercial success. It highlights technology's transformative potential in emerging markets while demonstrating the value of integrating banking services with existing digital platforms. This model

has since influenced numerous similar initiatives across Asia's financial sector, showcasing the lasting impact of this innovative collaboration.

## 5 Suggestion

### 5.1 The Aspect of FinTech Company

**Strategic Positioning Within Financial Ecosystems.** FinTech firms must clearly define their strategic orientation as either competitors or collaborators with traditional financial institutions. Strategic ambiguity may lead to regulatory challenges and resource misallocation. Empirical evidence suggests that successful FinTech startups typically integrate with existing financial ecosystems rather than pursuing full-scale disruption [5]. This approach enables regulatory compliance while leveraging established infrastructure for sustainable growth.

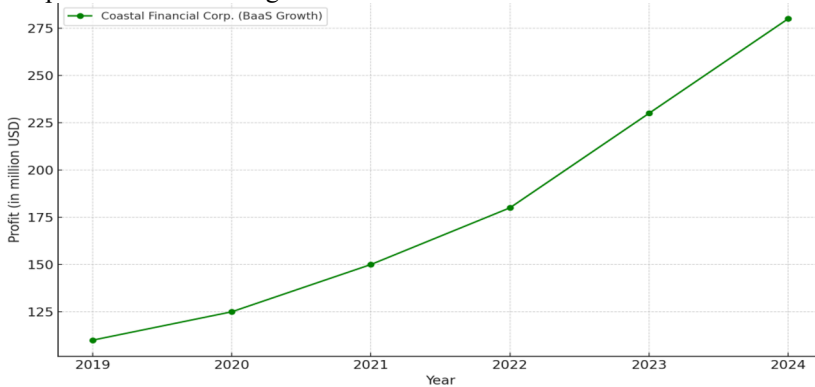
**Data Security and Consumer Trust.** Maintaining robust data protection measures is critical for FinTech operations, as privacy concerns directly impact consumer trust. Some study demonstrates that institutions prioritizing transparent data governance achieve higher customer retention [6]. With growing cybersecurity threats, investments in encryption and secure transaction protocols have become essential competitive differentiators in digital finance.

**Risk Management Imperatives.** FinTech firms face elevated risks including fraud, credit defaults, and data breaches. Recent data indicates a 13% annual increase in financial fraud, particularly affecting small businesses [7]. Credit risk is particularly acute, with FinTech personal loan defaults reaching 3.2% versus 0.9% at traditional lenders [8]. Advanced machine learning models have proven effective in mitigating these risks, serving as both protective measures and competitive advantages [9]. Proactive risk management systems are therefore indispensable for operational sustainability.

### 5.2 The Aspect of Traditional Bank

**Transition to Platform-Based Financial Services.** Traditional banks must evolve from product-centric models to integrated financial service platforms. The Banking-as-a-Service (BaaS) model represents this shift, enabling banks to incorporate digital tools, third-party applications, and personalized services. This approach enhances customer engagement through features like real-time transaction analysis and API-driven budgeting tools. Empirical data demonstrates the profitability of this transition, with one U.S. bank increasing annual profits from \$110 million to \$280 million between 2019 and 2024 through BaaS implementation (as shown in Figure 2). Such platformization

creates diversified revenue streams beyond traditional interest-based income, ensuring competitiveness in the digital era.



**Fig. 2.** Annual Profit Growth of Coastal Financial Corp. from 2019 to 2023.

**Implementation of AI-Driven Operational Systems.** The integration of AI into core banking operations presents significant efficiency gains. AI-powered credit assessment systems can rapidly analyze diverse data points including transaction histories and income verification, outperforming traditional evaluation methods. For customer service, intelligent chatbots provide instant responses to routine inquiries regarding account balances or transaction issues. In fraud prevention, machine learning algorithms enable real-time monitoring of transaction patterns, allowing immediate detection and response to suspicious activities. These technological advancements collectively enhance operational accuracy while reducing processing times and risks.

**Regulatory Support for Financial Integration.** Government regulators play a pivotal role in facilitating the convergence of traditional banking and financial technology. Effective policymaking should establish clear frameworks for collaboration while addressing systemic risks. Regulatory initiatives must balance innovation promotion with consumer protection, particularly regarding data security and interoperability standards. Such measures will enable sustainable integration of emerging technologies within the established financial ecosystem.

### 5.3 The Aspect of the Government

**Enhancing Regulatory Capacity through Advanced Technologies.** The traditional reactive regulatory approach suffers from significant time lags, often adopting a development-first, regulation-later model. To address this, regulatory bodies should leverage big data analytics and AI to improve monitoring capabilities. Big data enables comprehensive risk assessment by integrating traditional financial data with alternative indicators such as social media activity and consumption patterns. Research indicates that big data systems can identify potential risks 3-5 days earlier than conventional methods,

reducing overall risk exposure by 30% [10]. AI further enhances regulatory effectiveness through intelligent review systems that improve risk identification accuracy in credit and market monitoring.

**Strengthening Support for FinTech Innovation.** Government support for financial technology patents is crucial to maintain innovation momentum and prevent market monopolization. Without proper patent protection, technological advancements may be easily replicated, discouraging further innovation while allowing established firms to dominate through imitation. Regulatory frameworks such as China's Financial Technology Development Plan (2022-2025) demonstrate effective approaches by establishing innovation-friendly policies that facilitate technology commercialization. Such measures help balance market competition while protecting intellectual property rights.

## 6 Conclusion

This paper examines the dynamic interplay between fintech companies and traditional banks in core financial sectors, particularly payment systems and credit services. Through a comprehensive analysis, the study highlights the distinct competitive advantages of each sector. Fintech firms demonstrate superior capabilities in technological innovation (e.g., AI-driven credit scoring, blockchain-based transactions) and user experience optimization (e.g., seamless mobile interfaces, instant loan approvals). In contrast, traditional banks maintain a dominant position in capital reserves, risk management frameworks, and regulatory compliance, leveraging their long-standing institutional credibility and extensive branch networks.

However, this study has several limitations. First, the sample size of case studies is constrained, omitting critical insights from small and medium-sized financial institutions (SMFIs) and regional banking collaborations, which may exhibit unique competitive dynamics. Second, the technical aspects of fintech integration—such as algorithmic bias in AI lending models or cybersecurity risks in open banking—require deeper exploration. Third, the study does not fully account for regulatory divergence across jurisdictions, which significantly influences collaboration frameworks.

Future research should adopt a multidimensional approach to advance understanding in this field. First, cross-country comparative analyses are needed to assess how varying regulatory policies (e.g., EU's PSD2 versus China's fintech regulations) shape collaboration models, as regulatory frameworks significantly influence partnership dynamics. Building on this foundation, in-depth technical evaluations should examine emerging fintech applications, particularly in areas like decentralized finance (DeFi) and generative AI for customer service, to better understand their operational risks and scalability potential. Furthermore, longitudinal studies tracking the evolution of fintech-bank partnerships over time would provide valuable insights into which collaboration models prove most sustainable under different market conditions.

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