

A Review of the Impact of FinTech on Commercial Banks' Profit Models—Taking Mobile Payment as an Example

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Abstract

With the rapid development of FinTech, mobile payment, as one of the most widely used technologies, has gradually reshaped the profit and operating models of commercial banks. This paper systematically reviews relevant literature, explores the impact of mobile payment on the profit models of commercial banks, clarifies the differences in existing research perspectives, and proposes corresponding countermeasures. Based on the theoretical framework of financial intermediation theory and platform economy theory, this paper reviews the traditional profit models of commercial banks and the dual impact of mobile payment. The study finds that mobile payment has two sides to the profit models of commercial banks: on the one hand, it reduces payment costs, improves transaction convenience, changes consumer behavior, expands transaction volume, brings new business opportunities to banks, and increases non-interest income; on the other hand, it leads to the transfer of data and information advantages, and due to regulatory asymmetry, it intensifies market competition and erodes the traditional sources of income for banks. In addition, the impact of mobile payment has obvious scenario dependence and is affected by factors such as bank size, digital capabilities, regulatory environment, and market structure. Finally, this paper points out that the future competitiveness of commercial banks will depend on their ability to adapt to digital transformation and proposes prospects for future research directions. This study provides a systematic reference for understanding the impact of mobile payment on the profit models of commercial banks and promoting the transformation and development of commercial banks.

Keywords

mobile payment, commercial banks, profit model, fintech, digital transformation

1. Introduction

In recent years, financial technology (FinTech) has developed rapidly and has had a significant impact on the global financial industry. Existing research shows that the application of financial technology is changing the profit structure and business model of commercial banks [1]. Among the many applications of financial technology, mobile payment has become the most intuitive and widely used form, and is gradually becoming an important force driving the transformation of traditional banking. With the help of mobile devices, users

can complete payments and transfers more conveniently. This method has changed the provision model of financial services to a certain extent and has also affected people's daily consumption habits.

Traditionally, commercial banks' profits primarily rely on interest income from deposit and loan business, supplemented by a certain percentage of handling fees and commissions. This profit model, centered on interest rate spreads, remained stable for a considerable period. However, with the development of financial technology, this model is gradually changing. On the one hand, mobile payments have improved transaction efficiency; on the other hand, the rise of digital platforms has brought new competitive pressures to banks.

Against this backdrop, analyzing the impact of mobile payment on the profit model of commercial banks is of great significance. Existing research has yielded different conclusions on this issue: some studies believe that financial technology helps improve bank performance, while others emphasize the competition and risks it brings [2]. Therefore, it is necessary to systematically review the relevant literature.

Based on the above background, this paper mainly focuses on the following questions: (1) How does mobile payment affect the profit model of commercial banks? (2) What are the main differences in the existing research on its impact? (3) What countermeasures can commercial banks take in this process of change?

2. Theoretical Background

To better understand the question just raised, we must first clarify several key concepts and related theoretical perspectives.

FinTech typically refers to the application of technologies such as big data, artificial intelligence, and blockchain to the financial sector to improve efficiency and accessibility. Among the many fintech innovations, mobile payment has become one of the most widely used forms, enabling users to conduct transactions quickly and conveniently through mobile devices. In practice, such mobile payments can be provided by traditional banks or by third-party platforms that have expanded rapidly in recent years. With the popularization of mobile payments, financial services are gradually extending from the traditional banking system to digital platforms, a trend that has changed the way financial intermediaries operate [3, 4].

From the perspective of commercial banks, their profitability mainly depends on interest income and non-interest income. Studies have shown that with the development of financial technology, the proportion of non-interest income in the total income of banks has gradually increased, becoming a new source of growth [5]. Traditionally, interest income from credit business is an important source of revenue, while handling fees and commission income play a supporting role. However, with the development of mobile payment, various transaction processes have gradually moved away from traditional bank channels, which has led to changes in the income structure of banks.

Financial intermediation theory provides a valuable analytical framework for understanding this shift. This framework posits that banks act as financial intermediaries by reducing information asymmetry and transaction costs between themselves and borrowers. However, with the rise of mobile payments and digital platforms, some processes can be completed without direct bank involvement, potentially weakening the traditional financial intermediation function of banks.

Furthermore, the platform economy theory provides an important perspective for understanding the development of mobile payments. Digital platforms connect users and merchants and continuously expand their scale by relying on network effects, thereby forming a competitive advantage in the payment market [6]. This platformization trend has changed the role of banks in the payment system.

Existing research has presented differing perspectives on these development trends. Some researchers believe that mobile payments can improve efficiency and create new revenue opportunities for banks; while others point out that mobile payments may intensify market competition and erode traditional sources of bank revenue. This divergence of opinions indicates that the impact of mobile payments on bank profitability is not singular or homogeneous, and its specific impact may depend on a variety of factors, including bank size, digital capabilities, and market conditions.

3. Literature Review

3.1 Profit Model of Traditional Commercial Banks

Existing research generally holds that commercial banks have long relied primarily on the interest rate spread between deposits and loans to generate revenue, while also obtaining non-interest income through fees and other means. However, with the development of financial technology, this model has gradually changed [1]. In the period before the widespread development of financial technology, this profit structure centered on the interest rate spread was relatively stable. However, with the development of digital finance, especially the rapid popularization of mobile payments, this model has gradually changed. On the one hand, the importance of non-interest income in overall revenue has been rising; on the other hand, banks' revenue sources have begun to show a diversified trend.

At the same time, changes in customer behavior are also driving this transformation. With the popularization of mobile financial services, users are gradually reducing their reliance on physical branches and completing payments and transactions more through mobile phones and other terminals. This not only affects the cost structure of banks, but also changes the way banks interact with customers. Therefore, understanding the traditional profit model helps to further analyze the impact of mobile payments. Systematic review studies further point out that the impact of financial technology on bank profitability is dual: on the one hand, it improves efficiency, and on the other hand, it intensifies competition [2]. In addition, the development of financial technology is driving the transformation of bank revenue structure towards a more diversified direction [3].

3.2 Positive Impacts of Mobile Payment

3.2.1 Pain Relief in Payment and Changes in Consumer Behavior

In recent years, some literature has begun to focus on the impact of mobile payment on consumer behavior, rather than just its improvement in transaction efficiency. Compared with cash or physical cards, mobile payment is more convenient to operate and the transaction process is faster. This change weakens consumers' perception of "spending" to a certain extent, making payment behavior more "unnoticed". Mobile payment not only improves payment efficiency, but also changes consumer behavior. Studies have shown that mobile payment makes consumers more likely to make purchases by reducing the psychological cost of the payment process [7]. This "pain relief" mechanism makes the payment process smoother, thereby increasing the frequency of consumption.

This phenomenon is particularly evident in markets where mobile payments are more mature, such as the United States. For example, contactless payment methods, represented by Apple Pay, allow users to complete transactions with just a few simple steps. In this case, the payment process requires almost no extra thought, thus reducing psychological constraints when consuming. Especially in small transactions, consumers are more likely to make frequent or even impulsive purchases. In a cashless payment environment, consumers' spending behavior is more frequent, and their willingness to consume is enhanced [8]. From the perspective of banks, this change means an expansion of transaction volume, providing new sources of revenue for payment-related businesses.

Related research indicates that improved payment convenience may be related to increased transaction frequency. From a bank's perspective, this change in consumer behavior signifies an overall increase in transaction volume, potentially leading to more revenue opportunities based on transactions. However, these gains are not necessarily entirely reaped by the bank, as some transactions are often completed through third-party platforms.

3.2.2 Data Accumulation and Information Advantage Transfer

Beyond its impact on consumer behavior, mobile payments have also altered the distribution of data within the financial system. Payment platforms accumulate vast amounts of data about user behavior during transaction processing, including spending habits, transaction frequency, and preferences. This data holds significant value in the digital finance environment.

In the US market, payment platforms such as Stripe and PayPal not only provide payment services but also conduct related financial business by analyzing transaction data. For example, these platforms can conduct credit assessments based on transaction data, thereby providing financing services to small and medium-sized enterprises. This indicates that payment platforms are gradually transforming from “transaction tools” to “financial service providers.” Research indicates that big data technology is changing traditional credit assessment models, enabling non-bank institutions to enter the financial field and provide related services [9]. This change weakens the traditional advantages of banks in information, putting them under new competitive pressure [4].

This change means that the information advantage that commercial banks previously possessed is being weakened. Traditionally, banks have access to customer information through account and transaction data, and use this information to conduct risk management and credit business. However, as data is increasingly controlled by platforms, banks' advantage in information acquisition may decline, thereby affecting their competitive position.

3.3 Negative Impacts of Mobile Payment

Mobile payments have brought many opportunities, but related research also highlights the emergence of new structural problems. Among them, regulatory asymmetry is a prominent aspect. With the development of mobile payments, banks face competitive pressure from fintech companies. Research shows that the expansion of fintech companies in the payment field has changed the market position of banks [3].

Commercial banks are typically subject to stringent regulatory requirements, including capital adequacy ratios, risk control, and compliance management, which increase operating costs to some extent. In contrast, some technology companies face relatively fewer regulatory constraints when providing payment services. This difference is particularly evident in the European market, where some large technology companies can enter the payment sector in a more relaxed environment and rapidly expand their business.

In this context, banks and technology companies compete in the same market but bear different levels of regulatory costs. This asymmetric competition may put banks at a relative disadvantage. Some studies suggest that this regulatory difference not only affects short-term profitability but may also have a long-term impact on the structure of the financial market. Furthermore, competition between fintech and banks is reshaping the structure of the financial market, gradually weakening banks' advantages in traditional business areas [4]. In regions such as Europe, innovation in the digital payments market has further intensified this competitive trend [10].

3.4 Overall Evaluation

In addition to summarizing existing research findings, it is also necessary to point out the differences and limitations in the current literature. First, there is no unified consensus on the overall impact of mobile payments on bank profitability. Some studies emphasize the positive role of mobile payments in improving efficiency and promoting the growth of non-interest income [1], while others believe that increasingly fierce market competition and the “disintermediation” effect may weaken banks' traditional sources of income [4]. This difference in viewpoints mainly stems from differences in research perspectives, empirical methods, and sample contexts.

Secondly, existing research also has differing opinions on the role of data and platform dominance. Although some scholars regard the data accumulation of fintech platforms as a source of innovation and a driving force for inclusive finance, others emphasize that the transfer of information advantage from banks to platforms may fundamentally change the market competition landscape and weaken the strategic position of banks in the financial intermediation system [9].

While existing literature offers many valuable insights, several limitations remain. Most studies tend to focus on the positive or negative effects of mobile payments in isolation, lacking an integrated analytical framework that comprehensively captures its “dual impact” on bank profitability. Furthermore, existing empirical evidence is often context-dependent, lacking cross-contextual comparative analyses across different regulatory environments and bank organizational structures. Moreover, research fails to adequately consider

the heterogeneity among individual banks—such as differences in bank size, digital capabilities, and strategic responses.

The aforementioned research gaps indicate that the impact of mobile payments is far more subtle and context-dependent than previously thought; this lays a solid foundation for further in-depth discussions and future research. A review of existing literature reveals that the impact of mobile payments on commercial banks' profit models is not one-dimensional. On the one hand, it drives transaction volume growth and creates new business opportunities for banks by changing payment methods and consumer behavior; on the other hand, it also intensifies market competition and weakens some of the traditional advantages of banks through data redistribution and regulatory differences.

Furthermore, this impact is clearly context-dependent. Banks of different sizes respond differently to digital transformation; large banks typically possess stronger technological capabilities, while small and medium-sized banks may face greater pressure to transform. At the same time, the regulatory environment and market structure of different countries also affect the specific way mobile payments function.

Meanwhile, this impact is also influenced by the market environment and the level of technological development, with differences in the level of payment innovation in different regions [10]. Therefore, mobile payment is not only a technological innovation but also a structural change. It has also changed the power structure in the financial system to a certain extent, including who controls customers, who controls data, and who sets the rules. Its impact on the profit model of commercial banks depends on how banks adjust and adapt to this change.

4. Discussion

Based on existing literature, the impact of mobile payment on the profitability of commercial banks can be summarized into several core dimensions. First, mobile payment significantly improves transaction efficiency and convenience, thereby stimulating consumer spending and increasing transaction frequency [7, 8]. This expansion of transaction volume creates new opportunities for banks, especially in terms of non-interest income. Second, mobile payment reshapes the data distribution pattern within the financial system. As transactions are increasingly conducted through digital platforms, valuable user data is gradually concentrated in the hands of fintech companies rather than traditional banks, thereby weakening the information advantage that banks have long enjoyed. Third, the rise of platform-based payment systems has intensified market competition, especially in an environment of regulatory asymmetry—that is, banks face stricter compliance requirements than technology companies [4]. In summary, these changes indicate that mobile payment is not only a technological improvement, but also a structural force that is reshaping the profit logic of banks—its profit model is shifting from a focus on interest rate spreads to a new model increasingly influenced by data, platforms, and ecosystem participation.

Despite these insights, existing literature still has several limitations. A key issue is the lack of an integrative analytical framework. Many studies tend to examine one aspect of mobile payments in isolation—either positive effects like efficiency gains and income diversification, or negative effects like disintermediation and competitive pressure—failing to adequately capture the interactions between these effects. As a result, the dual nature of the impact of mobile payments is often oversimplified. Furthermore, much of the existing empirical evidence is context-dependent, focusing only on specific countries or markets, which limits the universality of research conclusions across different regulatory and institutional environments. Another important limitation is the insufficient attention paid to inter-bank heterogeneity. Differences in bank size, technological capabilities, and strategic positioning can significantly influence how banks respond to the mobile payment wave; however, these factors are often not fully explored in existing research. Therefore, we need a more refined and context-focused analytical perspective to gain a deeper understanding of the specific mechanisms by which mobile payments affect bank profitability.

To address these challenges, commercial banks urgently need to adopt a more adaptive and strategic approach. From a technological perspective, banks should accelerate their digital transformation and focus on strengthening their capabilities in payment systems and data analytics to regain a competitive edge in the digital ecosystem. Strategically, rather than directly competing with fintech platforms in all areas, banks should adopt

a selective cooperation strategy, such as integrating into platform ecosystems or establishing partnerships that allow for data sharing and service integration. From an institutional perspective, banks should also actively communicate with regulators to promote a more balanced regulatory framework, thereby mitigating the adverse effects of regulatory asymmetry. Ultimately, the sustainability of a bank's profitability will depend on its ability to effectively reshape its position within an increasingly platform-dominated financial system.

5. Conclusion

examines the impact of mobile payment on the profit model of commercial banks through a structured review of existing literature. Based on the research questions raised in the introduction, the following key conclusions can be drawn.

First, research indicates that mobile payments inherently have a two-fold impact on bank profitability. On the one hand, mobile payments improve transaction efficiency, enhance user convenience, and stimulate consumption, thereby expanding transaction volume and creating new sources of non-interest income. On the other hand, it prompts the transfer of data and customer relationships to digital platforms, weakening banks' traditional informational advantages and intensifying competitive pressures—especially in an environment of regulatory asymmetry.

Secondly, regarding the disagreements in existing research, the literature presents mixed and even contradictory conclusions. Some studies emphasize the positive role of fintech in improving efficiency and diversifying income [1, 2], while others highlight the risks of “disintermediation” and the hidden dangers of increased competition [4]. The main reason for these differences lies in the different research backgrounds, methodologies, and specific dimensions of profitability examined. This indicates that the impact of mobile payments is highly context-dependent rather than universally consistent.

Finally, regarding strategic responses, the literature suggests that commercial banks need to proactively adapt to the changing financial landscape. This includes accelerating digital transformation, strengthening data analytics capabilities, and re-evaluating their role in platform-based ecosystems. Furthermore, banks can seek partnerships with fintech companies and advocate for a more balanced regulatory framework to mitigate their potential competitive disadvantages.

Overall, mobile payment is not merely a technological innovation, but a transformative force reshaping the structure of financial intermediation and the profit logic of banks. Future research can further explore cross-border differences, regulatory impacts, and the heterogeneous coping strategies of different types of banks, thereby forming a more comprehensive and in-depth understanding of this evolving phenomenon.

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Conflicts of Interest

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