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The Impact of Financial Platforms on Macau's Traditional Banking Sector

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Abstract: This paper examines the transformative impact of financial technology (fintech) platforms, such as Alipay and WeChat Pay, on the traditional banking system, with a particular focus on the financial landscape in Macau. While Internet finance has not fundamentally changed the structure of financial products, its convenience has significantly reduced reliance on offline banking, especially for underserved populations and small and medium-sized enterprises (SMEs). In Macau, a free market economy supported by the post-2021 Guangdong-Macau integration policy, SMEs face complex lending procedures and stringent collateral requirements from traditional banks, a challenge exacerbated by the prevalence of COVID-19 pandemic and rising interest rates. Alipay's credit loans have become a lifeline for Macau's high-risk tertiary SMEs. The study highlights that total bank lending declined from $783 billion in 2016 to $518.6 billion in 2024, reflecting the waning influence of banks in Macau. By analyzing Macau's financial landscape and the competitive advantages of fintech powered by artificial intelligence and big data, this paper argues that traditional banks must adapt through digital transformation to financial platforms. Failure to address inefficiencies risks losing customers and market share, thereby threatening financial stability and inclusive economic growth.

Keywords: financial status, traditional banks, Alipay, financial technology

1. Introduction

Internet finance has not revolutionized the structure of financial products. Fundamentally, its convenience significantly reduces user dependence on offline banks. In the exploration of population and economic growth, researchers found that the influence of population growth on per capita human capital investment increases by diluting the stock of physical capital held by each individual [1]. As China's population grows by leaps and bounds, and the demand for financial management becomes greater, the traditional business of banks is becoming insufficient in supply. At this time, financial technology (fintech) platforms such as Alipay and WeChat Pay revolutionized personal and commercial financial services in China. These platforms now serve over 1.3 billion users globally, with deposits exceeding those of traditional banks [2].

By providing seamless payment solutions, microfinance services and fast loan approvals, fintech platforms have reduced the reliance on banks, especially for underserved populations and small and medium-sized enterprises (SMEs). The COVID-19 pandemic has exacerbated pre-existing difficulties in lending to SMEs, with long approval processes and strict collateral requirements at traditional banks, prompting most parts of SMEs to turn to non-bank credit channels [3]. This shift

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signals a pivotal moment for the banking industry, that if banks fail to adapt to fintech-driven demands for efficiency, inclusiveness, and digital integration, they risk becoming obsolete. As a consequence, understanding the factors that drive bank substitutability as well as developing adaptive strategies is necessary for financial stability and inclusive economic growth.

After Macau's return to the motherland, it retained its free market system, practiced free trade policies and continued to develop. The World Trade Organization evaluated Macau in 2002 and 2007, and confirmed that Macau has a very open economy, attracting many large companies and entrepreneurial talents to Taipa, where the land has just been reclaimed, especially after the implementation of the Guangdong-Macau integration policy in 2021. However, the first difficulty faced by SMEs wishing to enter into Macau for development – the complexity of the loan procedures – has deterred many potential enterprises, and this problem has worsened in the light of the impact of the economic downturn in the aftermath of the COVID-19 outbreak. Some small enterprises have gradually favored or been forced to use non-bank credit channels. The banks' approval process is so complex and long that some businesses are on the verge of bankruptcy before getting a loan approval and have to seek other funding. Another external factor is that online lending has shifted the stereotype of many finance platforms having much higher interest rates than banks. However, Macau's Monetary Authority's interest rate has soared from 2% in 2020 to 6% in 2024. This extra 4% interest rate is not worth a week or even a month of waiting hard for liquidity. In contrast, mobile financial payment platforms demonstrate the advantages of convenient payment, transfer, and microfinance. Microfinance businesses, such as Alipay's loan, have therefore become a lifesaver for small businesses, especially in a place like Macau where the tertiary sector, with its extremely high start-up costs and high business risks, is predominant. This study argues that this phenomenon is directly related to Macau's decline in total loans from $783 billion in 2016 to $518.6 billion in 2024 [4].

This paper discusses why banks should adapt to the new era and provides a strategic reference for the digital transformation of traditional banks. It avoids the serious problems that banks may face in the future, such as customer loss and declining market share, if they fail to adapt to the new era. This paper reveals two of the most serious problems that Macau's financial market is facing, investigating how mobile financial platforms are replacing banks in the lending business for Macau residents and SMEs, and how banks can innovate in facilitating lending to recapture the lost user base.

2. Overview of Macau's financial status

The recent global financial and economic crisis triggered by COVID-19 has shaken the importance of banks in the Macau's economy. Banks play an important role in the payment system, credit provision and financial services [5]. Macau is an open city with a fledgling gaming industry and a large number of credit customers. The banking industry in Macau consists of local banks such as the Industrial and Commercial Bank (ICBC) of Macau and international banks such as Standard Chartered Bank and Citibank. However, as they gained a certain specialty in competing with the smaller banks, they added restrictions on collateral for SMEs' credit guarantees, and took a negative attitude towards less liquid assets such as equipment and inventory, making it difficult for enterprises to complete their capital turnover, coupled with the credit assessment and other procedures. The complexity of credit evaluation and other procedures has taken up the golden time for many enterprises to recover.

Under these demanding conditions, enterprises' demand for more efficient and convenient financial services continues to grow, and traditional banks are challenged to meet these evolving needs. In the future, balancing financial security with the needs of economic development will be a challenge that the Macau's banking industry and the government will need to face together.

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3. The shift from traditional banking to mobile lending platforms

Most of the SMEs in Macau are at the lower end of the value chain, with weak competitiveness and difficulties in survival and development. Supported by the national policy of integration between Zhuhai and Macau, these enterprises were supposed to promote bank loan reserves in the original plan to develop new industries in Taipa. However, according to the ICBC, the number of enterprises taking out loans, including those in Zhuhai, has decreased rather than increased, resulting in an average of nine banks withdrawing their outlets each month. However, online platforms such as Alipay have partnered with Macau, and its sub-product "Xin Rong Dai" – the online lending software developed after COVID-19 – has partnered with more than 1,000 Macau merchants. It has provided trillions of dollars in consumer finance loans to new merchants who had not partnered with Galaxy to finance their loans, reflecting the fact that the impact of this platform is becoming comparable to that of brick-and-mortar banks. Backed by Macau's policy of challenging the centrality of banks in the financial system, this lending software for small businesses has seen annual growth in transactions, up by more than 135 percent year-on-year compared to regular bank loans. After the success of this sub-product of Alipay, more and more merchants began to consider online loans instead of going to the bank, gradually replacing traditional bank credit services. Although all major banks in Macau have begun to develop online lending services in their platform, still, their convenience and number of customers are far below than Alipay.

3.1. The lending difficulties faced by SMEs

Since the Guangdong-Hong Kong-Macau Greater Bay Area (GBA) initiative announced by the Chinese government in 2017, Macau, a special administrative region with a free market system, has adopted some of the more cross-generational financial services compared to the hinterland, as in the case of the mobile lending platform discussed in this article. Citing GBA policies, SMEs are provided with incentives such as tax breaks, market access, and infrastructure support to encourage them to expand or diversify their business to mainland China. However, despite these policy supports, SMEs in Macau still face significant financial obstacles. In the last decade, SMEs, which account for more than over 90% of the total number of enterprises in Macau, have seen their credit utilization rate rise to 16.7%, and their capital needs are increasing, which greatly increases the pressure on banks to provide loans and examine them, especially in terms of obtaining timely and affordable credit.

According to statistics, about 80% of mainland SMEs and 60% of Hong Kong SMEs expect to invest at least 15% of their income in the GBA in 2024, but they need Macau banks to prepare cross-border financial products and convenient service models for them [6]. In the initial period of the policy implementation, the pulling effect on Gross Domestic Product (GDP) was indeed great, but it gradually shrank from 2019 to 2020 after the epidemic, and banks found the risk of lower gaming traffic and limited the entry of business. This is an external factor that makes it difficult for SMEs to continue creating new industries in Macau.

Internal factors contrary to these operations are a major common problem in the traditional financial industry and the main privacy that allows mobile financial platforms to attract most of their customers. In today's fast-paced society like Macau, time is of the essence for lenders. Traditional banks are constrained by stringent lending criteria and slow approval processes, forcing customers' time to be wasted waiting for approvals, and are unable to keep their services in line with the rapid growth of economic activities driven by global business networks, which often leaves lenders missing out on opportunities in the market. For example, SMEs looking to capitalize on cross-border opportunities often need immediate access to liquidity to cover start-up costs and expand their outlets in Taipa. Such difficulties make it hard for SMEs to innovate upgrade and innovation industries in Macau.

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More importantly with the support of national policies in Guangdong, Hong Kong and Macau, total bank lending, which should only be increasing, has fallen from $783 billion in 2016 to $518.6 billion in 2024, yet private enterprises still expanding. This anomalous performance exposes the shrinking of bank credit pools, and a large number of merchants are skipping banks and looking for another lending platform [7]. COVID-19 pandemic makes it difficult for traditional banks to carry out offline business. In the dilemma of the above two major internal factors, the gap is filled by mobile lending platforms, which provide credit loans and microcredit services with a simple process. It usually takes only one day or even a few hours to complete the flow of funds. In contrast, ICBC's "Rong e Loan," which has the largest number of users, takes at least 3 to 5 business days due to its credit requirements for approval and screening [8]. Alipay's credit-only lending model utilizes digital data to complete loan approvals within minutes, in contrast to the waiting of weeks or months that banks usually take to approve loans, which is exactly why SMEs are reluctant to borrow from banks.

3.2. Competitive advantages of a new review system with artificial intelligence

It has been found that a technological advantage in risk assessment and user experience has been added to Alipay's loaning software "Xin Rong Dai." This cross-generational technology, which incorporates artificial intelligence for analysis and review, is at the heart of its faster loan approvals and more accurate review of credit systems compared to those of traditional banks. Big data and artificial intelligence can be used to improve the accuracy and efficiency of credit assessment by analyzing non-traditional data [9]. For example, real-time transaction records, which is especially important for groups that are difficult for traditional banks to reach. However, SMEs and users with limited credit histories as a result of inconsistencies in customer creditworthiness. For individualized, private malls or stores, this is a quick solution to the problems facing mainland Chinese companies in Macau [10]. By utilizing advanced algorithms, artificial intelligence, and big data analytics, Alipay's "Sesame Credit" credit assessment system is related to the merchant's real-time transaction history in order to reflect its accuracy. This type of loan tied to personal credit not only reduces the risk of the loan customer refusing to pay interest, but also optimizes the updating of the credit system. It also effectively addresses the non-objectivity of bank data, based on the fact that China's existing credit system currently shows a high degree of segmentation and closure, making it difficult to realize data sharing. The accuracy of the system is much greater than that of the national credit system with a low coverage rate.

In addition, the mobile platform provides a seamless and intuitive user experience that integrates payments, lending and financial management into one application. Amidst the wastefulness of the credit system's shortcomings that make it difficult for SMEs to obtain bank approvals, Alipay, with its high degree of segmentation and closure, leads to data-sharing challenges and the resulting lack of coverage and accuracy. A study supposes the limitations of national credit systems and provides an opportunity for mobile platforms, for example, Alipay, to fill this gap by integrating their own ecological data and transaction records [11]. For instance, SME owners in Macau can apply for a loan through "Mpay", a Macau fintech platform in partnership with Alipay, and receive approval and funding within hours. Traditional banks, constrained by legacy systems and manual processes, cannot match this in terms of speed and convenience. The contrast is particularly evident in Macau, where the fast-paced and service-oriented nature of the tertiary sector demands instant financial solutions. As Franklin said, "time is money," and the high efficiency of fintech platforms brings tangible economic advantages to users, further cementing their dominance over banks.

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4. Impact on the banking industry

Banks have assumed an important supporting role for Macau's gaming and service industries in its development process, but after suffering from the above hard-hitting and harsh approval conditions for SMEs as discussed earlier, their financing of enterprises and the real economy has declined from about 80 percent to less than half of overall enterprise financing. This is a great indication that the bank's most important cornerstone financial business, lending, has been carved up by loan software. At the 2023 International Forum on Mergers and Acquisitions of Chinese Enterprises, the Chairman of the Macau Banking Association pointed out that there is an inversion phenomenon in Macau's banking sector, where the interest rate on deposits may be higher than the interest rate on loans, and that the interest rate on loans may be even higher than the interest rate on deposits.

This phenomenon paradoxically reflects the fact that even with the support of the national GBA policy, there is still an imbalance between the supply and demand of capital in the Macau market. The uncontrollable rise in lending rates follows from 1% to 6%. This phenomenon has also led to the erosion of the only competitive advantage of banks, which is the lower interest rates. From 2022, after the COVID-19 period, to 2024, the growth rate has been so high that the net interest margin of banks as the difference between lending rate and deposit rate may shrink or even become negative. Simply speaking, the deposits of Macau residents became more, but the difficulty for enterprises to move into Macau resulted in the deterioration of Macau's economic circulation, which the profitability of traditional banks' deposit and loan business are under pressure. The service industry and the gaming industry will fall extremely as well.

However, it is still possible for banks to regain their dominant position in financial services by realizing their large volume of funds, and this paper suggests that banks can learn from the experiences and dilemmas of lending software development, such as Alipay, and improve their own bank lending software by taking advantage of the shortcomings, that their databases do not have the authority to be included in the national credit bureau system. Utilizing Structured Query Language (SQL) database technology, researchers have designed a more secure loan management system database for banks to access the loan management system, which is a more stable and safer way of lending for companies that emphasize stability [12].

5. Conclusion

As explored in this paper, in the lending business, the issue of time-consuming has been ignored by the banks. The hard-hitting of above elements has explained three main reasons why SMEs are reducing their lending with banks, which are the complex loan approval process, strict collateral requirements and slow response times of the traditional banking system. Those elements are the consequences of not keeping up with the times, and the lessons learned by the banks have led to a major shift in the financial system in Macau towards mobile lending platforms. "Xin Rong Dai" is the use of advanced technologies, such as big data and artificial intelligence, to replace the imperfect credit system of banks, and also provides customers with more options, such as quick loans and microfinance services, which greatly satisfy SMEs' need for improved timeliness and diversity of needs.

In conclusion, this paper argues that the loan business offered by traditional banks has failed to keep pace with the fast, convenient theme of the times. Fintech's competitive advantage lies not only in its operational efficiency but also in its ability to address the limitations of traditional banking, such as outdated examination and approvals, and fragmented and inaccurate national credit systems. This shift has exposed weaknesses in Macau's banking sector, including shrinking credit pools, rising interest rates, and diminishing market share. As a result, SMEs are increasingly bypassing banks in favor of this more efficient form of financing.

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