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The impact of digital transformation on the operating performance of Agricultural Bank of China

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ABSTRACT

With the continuous development of digital technology, the global economy has gradually entered the era of digital economy. The rapid development of Internet finance has a great impact on business The banking industry has been strongly impacted, and the position of commercial banks in the financial market has also been greatly challenged. In addition,Digital transformation has become an inevitable trend for commercial banks in China to break the status quo and enhance their core competitiveness. As a significant strategic transformation for future development, digital transformation has altered the business model and organizational management structure of commercial banks, profoundly impacting their operational development and performance levels over the long term. This article takes the Agricultural Bank of China as a case study, delving into its annual report data, financial figures, and market conditions, and elaborating on the specific impacts of digital transformation on bank performance. The article argues that the Agricultural Bank should adopt a scientific strategy to drive digital transformation, further optimize its digital business structure, and strengthen its digital operational capabilities to effectively improve the performance of commercial banks. If commercial banks can deepen the integration of technology and finance to promote innovation in their operations and enhance service capabilities, they will more effectively meet the demands of the digital age and embark on a sustainable development path.

KEYWORDS

Digital Transformation; Agricultural Bank of China; Operational Performance

1 Research Background

With the rapid development of technologies such as big data and blockchain, the scale of China's digital economy has grown rapidly. Against this backdrop, the digital transformation of commercial banks has not only reshaped the financial market order and the implementation of monetary policies but also had a profound impact on payment and settlement methods, posing a serious challenge to traditional banking business models. Faced with this complex and ever-changing new environment, digital transformation has become a key direction for commercial banks to explore development, and it is of crucial significance to their economic growth. In the past, traditional banks mainly relied on offline branches as business support, with state-owned banks having a significant advantage in this regard. However, with the rise of internet technology and the continuous emergence of new technologies, the consumption habits of the banking customer base have undergone profound changes. In recent years, the rapid development of information technology has given rise to a new mode of "digital life," and the connection between financial consumers and the internet has become increasingly close, leading to fewer and fewer bank users utilizing traditional offline services. Instead, they are more inclined to independently use digital financial tools based on their own needs. Therefore, commercial banks such as the Agricultural Bank of China have proposed digital transformation strategies aimed at strengthening data application and driving the innovation of banking business models. Digital transformation, with "data" at its core, drives the construction of engineering frameworks and the application in key areas, becoming a key force in promoting the transformation and innovation of banks. Taking the Agricultural Bank of China as an example, the process and effectiveness of its digital transformation are not only related to the development of the bank itself but also have significant demonstration and leading roles for the digital transformation of the entire banking industry and even the national economy. Therefore, an in-depth exploration of the actual effects and impact mechanisms of the Agricultural Bank of China's digital transformation is of great significance for promoting the digital transformation of the banking industry and even the entire economic system.

2 Causes of digital transformation of Agricultural Bank of China

2.1 Intensified industry competition

In recent years, the growth rate of banking assets has shown a slowing trend. The rapid rise of internet finance poses challenges to traditional commercial banks, intensifying market dynamics. Digital transformation has become a critical path for the banking industry to address these challenges and achieve sustainable development. As one of China's major commercial banks, Agricultural Bank of China faces numerous challenges in its digital transformation, primarily due to its extensive branch network and complex management structure. A large number of branches across the country lead to high operating costs and a complex organizational structure, making it difficult to centralize management and promote scaled development. Therefore, compared with other commercial banks, Agricultural Bank of China has an even more urgent need for digital transformation. The rapid development of internet finance has had a significant impact on traditional commercial banks[1].

2.2 Change of customer demand

The customer base of commercial banks is extensive, primarily comprising two major categories: individual residents and corporate clients. These two groups exhibit distinct differences in their financial needs. Individual residents focus mainly on the realization of fund planning and transaction functions. As they age, their service preferences also change. Specifically, elderly customers tend to prefer traditional, non-digital service methods, valuing stability and friendly service from staff; in contrast, younger customers have higher expectations for personalized and efficient digital services, preferring to complete various financial transactions quickly and conveniently through smart devices and mobile applications. For corporate clients, with the continuous advancement of digital transformation, the degree of business digitization has steadily increased, leading to more efficient and personalized service demands from commercial banks. They expect to enhance business efficiency and reduce operating costs through digital means. Therefore, as a traditional bank with a large volume of business and a broad customer base, Agricultural Bank of China faces significant pressure for digital transformation. Whether serving individual or corporate clients, the bank must continuously improve its digital capabilities to meet the increasingly diverse financial needs of its customers. By strengthening research and application of digital technologies, enhancing service efficiency and personalization, Agricultural Bank of China will be better able to satisfy customer demands and gain greater profits in fierce market competition[2].

3 The influence mechanism of digital transformation of commercial banks on business performance

3.1 Impact on asset business

Asset business, as the primary means for commercial banks to utilize funds, forms the core source of their income. Among these, loan business is particularly crucial, occupying a significant proportion of the bank's asset business. Additionally, securities investment business cannot be overlooked, involving the purchase of securities, which together constitute an important part of asset business. With the deepening of digital transformation in commercial banking, banks have been able to break through the limitations of traditional physical branches and widely expand their loan business through online channels[3]. This move not only effectively broadens the bank's customer base but also significantly enhances the coverage and penetration rate of loan business. Leveraging advanced technologies such as big data and artificial intelligence, commercial banks can more quickly and accurately assess borrowers' creditworthiness and repayment capabilities.

This not only significantly reduces the time required for traditional manual approval processes but also effectively lowers operational costs, greatly improving the efficiency and risk control capabilities of bank operations, enhancing the accuracy and consistency of approvals, thereby effectively reducing credit risks.

3.2 Impact on Debt industry

Digital transformation helps to further expand the development space of commercial banks' retail business. By applying digital technology, commercial banks can achieve large-scale and low-cost customer acquisition. According to financial innovation theory, with the widespread application of digital technology, commercial banks innovate and reform their operations through big data and artificial intelligence, thereby improving service quality and levels. On one hand, commercial banks can use big data technology for user profiling and image analysis, enabling them to more accurately understand the needs of different users, thus providing more targeted personalized service solutions. On the other hand, with the digital transformation of commercial banks and the impact of the pandemic, online customer acquisition channels have developed rapidly, and online service channels have become increasingly sophisticated, making online channels the primary means of customer acquisition for commercial banks. Compared to physical branches, online channels can achieve lower costs and larger scales of customer acquisition, which also increases the proportion of retail business in operations, reducing the reliance on wholesale business. According to the long-tail theory, with digital transformation, the importance of retail customers is growing, and the focus of commercial bank customers is gradually shifting from high-net-worth clients to a large number of retail customers, changing the liability structure of commercial banks and thus affecting their operational performance.

3.3 Impact on intermediate business

Intermediary business refers to the activities where commercial banks act as intermediaries or agents, providing various financial services to customers and charging certain fees. This primarily generates non-interest income for banks. Such businesses do not directly involve changes in bank assets or liabilities but leverage the bank's advantages in technology, information, and institutional networks to offer services such as payment settlement, agency, guarantee, and consultation. Digital transformation enhances the efficiency and convenience of intermediary business through the introduction of advanced technologies and innovative business models. Traditional intermediary business processes are often cumbersome and time-consuming, whereas digital technology can significantly simplify these processes and increase processing speed. For example, through online banking, mobile banking, and other electronic channels, customers can handle transfers, payments, inquiries, and more anytime and anywhere without having to visit a physical branch. This not only provides a more convenient service experience for customers but also reduces the labor costs for banks. Digital transformation has also enriched the types and forms of intermediary business. With the development of fintech, commercial banks can develop more innovative intermediary business products to meet diverse customer needs. Additionally, banks can utilize blockchain technology to provide new intermediary services such as cross-border payments and digital currencies. However, with the continuous advancement of technology, new competitors like internet finance companies and tech firms are constantly emerging. They leverage more flexible and innovative business models to challenge the traditional intermediary business of commercial banks. Digital transformation also requires banks to have higher technical capabilities and risk management levels to address potential cybersecurity risks and data breaches.

4 Current situation of digital transformation and development of Agricultural Bank of China

4.1 Digitalization of business operations

Business operations are a crucial means for commercial banks to carry out their activities, and digitalization transforms traditional business models into user-centric digital forms. The Agricultural Bank of China has accelerated the application of data through digital operations, providing customers with a wealth of digital services and expediting the speed of data utilization. By enhancing the driving force of "data + algorithms," it has innovatively launched a series of data-driven products such as "Smart Customer Engagement," "Smart Customer Retention," and "Smart Customer Linking," significantly improving service accuracy and risk control capabilities. The deep integration of business and technology has spurred new productivity, gradually forming a data-driven customer service model, while the concept of data-based decision-making and risk management is becoming increasingly ingrained. In the corporate finance sector, the Agricultural Bank of China continuously optimizes its corporate customer marketing management system, developing a range of digital marketing tools through precise chain marketing, customer stratification management, and value enhancement for key customers. At the same time, it has accelerated its layout in areas such as transportation, tourism, industrial chains, and elderly financial services, continuously enriching applications like online lending, transaction banking, and elderly care products. During this period, the number of active corporate online banking and mobile banking users increased by 1.2 million and 1.12 million, respectively. In personal finance, the Agricultural Bank of China is dedicated to deeply tapping into data potential, driving business innovation through data, and providing personalized and convenient online financial service experiences to a wide range of customers via innovative channels and tools such as intelligent outbound calls and "Smart Customer Engagement." At the same time, the Agricultural Bank actively introduces new technologies, continuously optimizes the "Retail Business Wisdom Brain," enhances the functionality of digital tools, and strengthens the interconnectivity between systems and data, thereby building an integrated business model that seamlessly connects online and offline operations. With continuous optimization of online services, the monthly active customer base of personal mobile banking has reached 172 million, firmly placing it at the forefront of the industry. By the end of 2022, the scale of "ABC e-Loan" business had exceeded 3 trillion yuan, growing by 42.3% year-on-year, effectively improving the convenience and efficiency of customers enjoying online financial services.

4.2 Digital channel construction

The pace of digital transformation is accelerating across various industries in our country, with digital technology deeply penetrating every aspect of people's lives. Commercial banks are also actively engaging in this wave of digitalization, striving for the deep integration of online and offline operations. In promoting the digitalization of its offline channels, the Agricultural Bank has been actively implementing intelligent and lightweight transformations at its branches, successfully completing the intelligent upgrade of over 20,000 outlets nationwide. The bank continues to make breakthroughs on the path of digital transformation, actively advancing the construction of 5G smart banking outlets.

Leveraging advanced digital technologies, the Agricultural Bank has successfully established 695G smart banking outlets in 28 provincial branches, offering customers a brand-new digital service experience. These outlets not only achieve efficient data transmission and processing but also provide more convenient and personalized services through intelligent equipment and systems, significantly enhancing customer satisfaction. At the same time, to further increase the frequency of users' online system usage, the Agricultural Bank has deeply optimized and integrated its online banking and Shang e-Pay systems.

5 Analysis of the operating performance of Agricultural Bank of China

5.1 Analysis of operating efficiency

In 2022, the Agricultural Bank of China achieved a revenue of 724,868 million yuan, a slight increase of 0.69% year-on-year, while its net profit reached 258,688 million yuan, up by 6.92%. In recent years, both the revenue and net profit of the Agricultural Bank of China have shown an overall upward trend, demonstrating strong profitability. By innovating with digital products and services, the Agricultural Bank of China has successfully maintained positive growth in revenue and net profit, showcasing its proactive achievements in digital transformation. In recent years, the average return on total assets and the weighted average return on equity of the Agricultural Bank of China have shown a year-on-year decreasing trend, which is underpinned by multiple factors. The primary reason lies in the slowdown in national economic growth, which has had a profound impact on the banking sector. Specifically, from 6.7% in 2018 to 3% in 2022, the significant decline in GDP growth has directly led to a decrease in the yields of financial institutions like the Agricultural Bank of China. Secondly, the regulatory authorities' increase in capital adequacy ratio standards has imposed continuous financing pressure on the banking industry, while the growth rate of net profit has failed to keep pace with the growth rate of net assets, further affecting the profitability of the Agricultural Bank of China. It is worth noting that although the ROA and ROE indicators of the Agricultural Bank of China have narrowed, these two metrics alone cannot fully and accurately reflect its overall profitability. By combining previous analyses of operating revenue and net profit, we can see that the Agricultural Bank of China still has potential and room for improvement in terms of profitability. Against the backdrop of a general slowdown in the profitability of the banking sector, digital transformation offers new profit growth points and business development directions for financial institutions such as the Agricultural Bank of China. Through digital transformation, the Agricultural Bank of China is expected to inject new vitality into its existing operational model, optimize business processes, and enhance service efficiency, thereby achieving more stable and sustainable profitability in the future.

In recent years, the Agricultural Bank of China has shown a significant growth trend in its financial investment layout. From 2018 to 2022, its investment growth rate reached as high as 38.42%, which fully demonstrates the bank's active engagement and enthusiasm for investments in the financial sector. At the same time, the amount of funds deposited with peers and borrowed from others by the Agricultural Bank of China has also been on an annual upward trend, steadily increasing from 661,741 million yuan in 2018 to 1,131,215 million yuan in 2022. This growth reflects the bank's emphasis on asset reinvestment in recent years, achieving asset appreciation and liquidity enhancement through optimized asset allocation. Notably, influenced by adjustments to the reserve requirement ratio, the Agricultural Bank of China's cash and funds deposited with the central bank have shown a year-on-year decline, reflecting the bank's strategy of allocating more assets for reinvestment. This strategic adjustment reflects the bank's confidence in asset reserves and proactive response to market conditions. In the process of digital transformation, the Agricultural Bank of China has gained more channels for asset reallocation, undoubtedly promoting its asset liquidity. Among the four major state-owned banks, the Agricultural Bank of China stands out due to its relatively high asset liquidity, demonstrating significant competitiveness in digital services such as short-term deposits and withdrawals. This advantage helps the Agricultural Bank of China maintain a leading position in fierce market competition and lays a solid foundation for its future sustainable development.

5.2 Risk prevention and control analysis

Agricultural Bank possesses outstanding risk management capabilities, which are crucial for ensuring its long-term sustainable development. In 2022, the total assets of Agricultural Bank reached 33,927,533 million yuan, a year-on-year increase of 16.71%, with a capital adequacy ratio of 17.20%, up 0.07% from the end of the previous year. According to the Basel Accord, commercial banks must have a capital adequacy ratio of 8%, while systemically important banks in China require a ratio of 11.5%. With the support of digital transformation, Agricultural Bank's capital adequacy ratio rose from 15.12% in 2018 to 17.20% in 2022. Digital transformation has made bank fund flows more transparent, increased total capital, and optimized risk asset evaluation through big data analysis, thereby reducing risks and enhancing overall bank performance.

The deposit-to-loan ratio of the Agricultural Bank of China has shown a clear upward trend in recent years, steadily increasing from 67.83% in 2018 to 78.68% in 2022. This change indicates that the bank's asset liquidity has been gradually improving over the years. The increase in loans at the Agricultural Bank of China is mainly due to its implementation of the "Rural Revitalization" key strategy, which significantly enhanced the bank's lending efforts in rural areas and agriculture. This strategy not only boosted the growth of the Agricultural Bank of China's loan business but also played a crucial role in rural revitalization.

However, the growth in loan amounts has also brought certain potential risks, and the bank must exercise greater prudence in risk control to ensure the effectiveness and safety of loan disbursements. By the end of 2022, the non-performing loan balance of the Agricultural Bank of China reached 271.962 billion yuan, with a non-performing loan ratio of 1.37%, which is below the industry average, indicating relatively good loan quality. In terms of risk prevention and control, the Agricultural Bank of China has demonstrated a steady performance, with a non-performing loan provision coverage rate as high as 302.60%, demonstrating strong risk mitigation capabilities. Additionally, both the provision coverage ratio and the loan provision ratio of the Agricultural Bank of China are higher than the industry average, reflecting its cautious attitude and prudent operating style as a major state-owned bank. These measures not only help the Agricultural Bank of China better address potential risks but also provide a solid foundation for its future stable development.

6 Suggestions

After analyzing the management and operation status of Agricultural Bank of China and its digital transformation, the following suggestions are proposed, hoping to provide a reference for Agricultural Bank of China and other commercial banks to leverage their digital advantages and continuously improve their operating performance levels during the digital transformation process.

6.1 We will actively innovate financial products and services

With the rapid development of internet finance, online payment platforms and fintech companies have been steadily encroaching on market share, posing a significant challenge to traditional financial services provided by commercial banks. The long-standing dominant position of commercial banks in the financial market has also faced substantial challenges. Therefore, commercial banks urgently need to proactively adapt to the trend of digitalization, actively develop innovative financial products and services to continuously enhance their core competitiveness. For the Agricultural Bank of China, the current level of innovation in financial product design is relatively low, mostly focusing on areas such as money market funds, smart savings, and consumer loans. However, there is still insufficient effort in innovating digital financial products and product digitization.

Currently, with the continuous development of internet finance and digital technology, the demand for wealth management products among Chinese financial consumers and investors has become more diversified and differentiated. Therefore, to better meet the personalized needs of different types of consumers, the Agricultural Bank of China should adhere to the business philosophy of "customer-centricity," focus on customer needs, strengthen the application of digital technology in business operations, and leverage digital science Technological innovation in products and services[4].

6.2 Reduce the provision coverage rate

Digital transformation can bring optimization in several aspects: First, precise risk assessment. Banks can use big data and machine learning technologies to conduct in-depth analysis of multi-dimensional data such as borrower; credit records, business conditions, and industry trends, thereby more accurately assessing their default risk and setting a more reasonable provision coverage ratio. Second, digital technology can enable real-time monitoring and early warning of risks. By building risk monitoring models, banks can promptly identify potential risks and take corresponding risk control measures, thus reducing the probability of non-performing loans and decreasing the need for a higher provision coverage ratio. Third, digital technology can optimize the credit business process, helping to reduce human operational errors and fraud risks.

Through automated approval processes and electronic contracts, it can improve the efficiency of credit business handling and lower operational risks, which also helps to reduce the provision coverage ratio. Fourth, using digital technology can assist banks in strengthening internal management and enhancing risk management levels. By establishing a comprehensive risk management system, clarifying risk management responsibilities and procedures, and ensuring that the setting and implementation of the provision coverage ratio comply with regulatory requirements.

6.3 Strengthen the construction of digital talent team

In the context of the big data era, digital talent is gradually becoming a crucial driving force for the development of the digital economy. To accelerate the digital transformation process of commercial banks, building a team of digital talents is a key component. Therefore, the Agricultural Bank should increase its emphasis on attracting digital talent, highlighting and leveraging their critical role in digital transformation. It should continuously establish and improve talent cultivation systems and management mechanisms to build a competitive digital talent pool, enhancing the bank's digital operation and management capabilities, thus safeguarding the realization of digital transformation. At the same time, it should establish and improve standardized training systems and development mechanisms for digital talent, increase financial investment in talent cultivation, and enhance the digital literacy of the talent pool through relevant training programs. By promoting project practices, it can foster the development of digital capabilities among talents, effectively driving the digital transformation and technological innovation of the Agricultural Bank. Additionally, the bank should comprehensively assess the professional abilities of its talent pool, using big data analysis to segment professionals based on their expertise and foundational skills, forming clear talent profiles. Then, allocate talent resources to the most suitable fields to maximize their marginal contribution to the digital transformation process and business performance.

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