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CREDIT TRANSFORMATION OF COMMERCIAL BANKS IN THE CONTEXT OF DIGITIZATION

The article considers the current state of development of lending to commercial banks in China. The trends of credit transformation against the backdrop of digitalization are analyzed in detail, in particular, much attention is paid to the role of Big Data in optimizing banking products, data and processes associated with digital technologies. The factors that have the greatest impact on the digital transformation of banking strategies, as well as business models that implement new growth drivers, are identified.

Key words: *digitization, commercial bank, credit, digital transformation.*

В статье рассмотрено текущее состояние развития кредитования коммерческих банков Китая. Детально проанализированы тенденции кредитной трансформации в процессе цифровизации, в частности

большое внимание уделено роли больших данных в оптимизации банковских продуктов, данных и операций, связанных с цифровыми технологиями. Определены факторы, оказывающие наибольшее воздействие на цифровую трансформацию банковских стратегий, а также бизнес-модели, реализующие новые драйверы роста.

Ключевые слова: *цифровизация, коммерческий банк, кредит, цифровая трансформация.*

With the rapid development of big data, cloud computing, blockchain, artificial intelligence and other technologies, the deep integration of Internet technology and the financial industry, traditional financial methods have also undergone tremendous changes, bringing unprecedented impact and challenges to commercial banks. Facing the ever-changing industry competition landscape, commercial banks need to actively promote the landing and application of advanced science and technology, accelerate digital transformation, enhance credit business support capabilities, improve model design capabilities, improve data analysis capabilities, and develop technological agility capabilities.

Affected by the epidemic, the global economic development has slowed down. In order to promote economic development, commercial banks in various countries have increased their credit support to domestic enterprises. For example, in the first half of 2022, the total amount of funds used by the Development Bank of Belarus for investment projects and other projects, export credits, and support for small and medium-sized enterprises reached 4.6 billion Belarusian rubles, a year-on-year increase of more than double [1].

With the rapid development of mobile communication technology and the popularization of smart devices, the use of mobile networks to solve the problems of basic necessities of life has become a living habit and has been deeply rooted in the hearts of the people. "Digitalization and intelligence" have become inevitable requirements for customers to feel and experience life. Therefore, in the process of accepting credit services, the cumbersome process

and frequent operations are disgusted by customers. Customers often prefer a simple and intuitive credit experience, and focus on how to obtain credit support in a shorter time and streamlined process. The development of digital technology has also led to changes in the financial industry. Online lending businesses such as Alipay Zaibai, WeChat Weidai and P2P have emerged, which have solved the business barriers of traditional commercial banks in the development process and brought opportunities for the digital transformation of commercial bank credit. How to effectively carry out digital transformation is an issue that traditional commercial banks need to consider in the current digital age.

1. Current status of China's commercial bank credit development

As shown in Table 1, from 2016 to 2021, the balance of RMB loans of Chinese commercial banks will maintain a steady growth trend. In 2016, the balance of various RMB loans of commercial banks was 105.19 trillion yuan. At the end of 2021, the balance of various RMB loans of commercial banks was 192.69 trillion yuan, an increase of 11.6 % compared to 2020 [2].

Table 1. Total credit balance of commercial banks in China from 2016 to 2021 [2]

Year	Total credit (trillion yuan)
2016	105.19
2017	124.87
2018	140.6
2019	153.11
2020	172.75
2021	192.69

From the perspective of the balance of non-performing loans of commercial banks, the balance of non-performing loans of commercial banks in China will maintain a growing trend from 2016 to 2021, from 1.51 trillion yuan in 2016 to 2.8 trillion yuan in 2021, an increase of 85.43 % [3].

Table 2. 2017–2021 Non-performing Loan Balance of Commercial Banks in China [3]

Year	Balance of non-performing loans (trillions)
2016	1.51
2017	1.71
2018	2
2019	2.41
2020	2.7
2021	2.8

Fast-growing Chinese financial technology companies use multi-dimensional data information such as third-party payment, financial consumption, social networking, etc., combined with cloud computing, artificial intelligence, blockchain and other technologies, to surpass traditional bank physical outlets and open up the credit market. Business diversification, low cost and other advantages have attracted a large number of credit customers, leading to the loss of some customers of commercial banks, which has brought operational pressure to commercial banks and also provided experience. The capacity of the local credit market is limited and tends to be saturated. High-quality credit customers are often competed by multiple commercial banks, and the market share competition among the same industry is becoming more and more fierce. At the same time, the amount of bank credit is subject to corresponding restrictions due to deposit capacity, and can only operate with limited capital flows. When there are situations such as poor management of assets and liabilities, maturity mismatch, etc., commercial banks have to make up for the lack of liquidity at a high cost that exceeds the market. The labor costs and operating costs brought about by physical outlets have more or less reduced the profitability of commercial banks. Traditional commercial banks have problems such as high entry barriers for some products and relatively narrow business radiation areas, which fail to fully meet the credit needs of customers. With the accumulation of certain data and technologies within the bank, commercial banks will have a strong

foundation and support for realizing digital credit services on a large scale.

2. The credit transformation trend of commercial banks under the background of digitalization

The future digital transformation needs to integrate the advantages of traditional commercial bank credit and digital credit models, complete risk control and approval decisions through data modeling and technology applications, and provide customers with efficient, convenient and intelligent credit services.

2.1. The approval method has changed from relying on pure manual experience to data intelligence

The traditional credit approval model is heavily influenced by human factors and relies on the work experience and professional judgment of independent approvers. Therefore, there are differences in approval standards in different regions or levels. Data intelligence achieves intelligent approval by building a big data model and combining customer credit information, social behavior and other data, which significantly improves the accuracy of risk control.

2.2. The credit business process has changed from "single line" to "going hand in hand"

The traditional credit process includes customer application, pre-loan investigation, approval, contract signing, loan lending and other links. It is characterized by a single line. Once the intermediate links are blocked, the process will be forced to stagnate. Digital credit means that after the customer puts forward the credit demand, the multiple processes of customer credit and credit approval go hand in hand, the service efficiency will be higher, and the customer experience will be better.

2.3. Credit services shift from offline to online

Traditional credit business is handled through physical outlets and account managers, and there are limitations such as geographical location, business hours and business scope. Digital credit management is to digitize credit services, extend to every real economy through digital tentacles, trigger financing needs online, and break through time and space constraints.

2.4. Risk control changes from post-lending to the whole process

Traditional credit business emphasizes loans and despise management, and risk control relies too much on post-loan inspections. When problems are found, it is often too late to fix them. The digital credit business model embeds big data and artificial intelligence models into the credit process, and implements unified risk management for customers, so that risks can be known before lending, risks can be controlled during lending, and risks can be reduced after lending. At the same time, the staff in each link of the whole process are granted corresponding authority to realize "anytime, anywhere" mobile office. All operations are completed on the platform to realize a closed data cycle, timely discover and take effective measures to resolve loan risks. In order to prevent data leakage or tampering, commercial banks should establish data security management guidelines to ensure data security in collection, transmission, storage, processing, and destruction, especially data security in key links of loan contracts and credit processes in the form of data messages.

3. Suggestions on credit transformation of commercial banks in the context of digitalization

The performed study allows us to formulate a number of proposals for the credit transformation of commercial banks.

3.1. Improve technology development capabilities

On the one hand, use cutting-edge technology to deeply integrate with existing credit business, and integrate and reuse existing products and digital models to improve technology development efficiency. On the other hand, a reverse product customization mechanism can be set up to respond to the needs of the front-end business when the product design does not match the promotion effect, and make personalized fine-tuning of the existing product mechanism to meet the actual development needs and enhance product and regional credit characteristics adaptability and feasibility. Improve model design capabilities.

3.2. Transformation from purely manual decision-making to intelligent and digital decision-making

Commercial banks can integrate the work experience of a group of employees with many years of approval experience into

machine intelligence to form rules for eliminating and quantifying credit risks, and realize the transformation from relying on purely manual decision-making to intelligent and digital decision-making. On the one hand, participate in the design of the product system and the connection process of front-end and back-end businesses, investigate the technical needs of the front-end, carry out product innovation and technology upgrades; on the other hand, design the online credit risk control system structure, and use digital means to monitor online products and customers, conduct full life cycle risk control, using artificial intelligence algorithms and big data, build different models for uninterrupted scanning, and complete early warning processes such as "push, check, confirm, and release". When there are no risk signs, potential risk points are pre-screened to form a comprehensive coverage of risk control without dead ends.

3.3. Improve data analysis capabilities

On the one hand, with the advancement of the 5G era and technological innovation, data that could not be digitized in the past can also become data assets, and data is the most important lifeline in retail risk management. The more effective data, the better the level of risk management. Let the data become a display of business results and serve for internal performance appraisal. On the other hand, establish a data collection responsibility system, enhance the authenticity, integrity, continuity, and effectiveness of the obtained data, and carry out necessary update, maintenance, and improvement of risk data in a timely manner, and introduce compliant and effective external data to achieve Predict the changing trend of market and customer demand, and provide data basis for the entire business decision-making. Enhance business support capabilities. Carry out product customization and innovation according to the credit needs of different customer groups, and re-plan and design business processes. In order to give full play to the overall supporting role of the credit business, it is necessary to carefully study the requirements of internal and external credit policies and possess the professional ability of industry analysis in order to achieve effective screening

of customers. At the same time, under the condition of effective manpower of the approval team, the efficient approval of credit can be realized and the risk control can be ensured.

Conclusion

Commercial banks should actively embrace big data, gain insights from data, continuously optimize products, data, and processes around digital technology, drive business innovation, reduce customer service costs, and promote products, marketing, channels, risk control, Comprehensive digital transformation such as decision-making and deep integration of offline and online integration. Commercial banks should make full use of digitalization, a new way of thinking, to realize the in-depth digital transformation of bank strategies, business models and concepts, help to grow new growth drivers, and meet the credit needs of different entities.

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