Research on Credit Risk Rating System of Bank of China

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Abstract: With the rapid development of China's economy, the degree of opening up of China's financial market has gradually opened up. The default rate of non-performing loans caused by venture capital has increased year by year, and the problem of backward management of China's credit risk has become increasingly prominent. This article uses a certain behavior example of the Bank of China. By analyzing the current status and existing problems of traditional credit evaluation, a new scientific and effective user credit evaluation system is proposed, and various evaluation indicators are investigated accordingly, and the evaluation system established is analyzed for the continued health of domestic commercial banks development is of reference significance.

1. Introduction

Among the many risks of banks, credit risk requires special attention, and credit risk management is accompanied by banks. Before the 20th century, for banks, their business operations were not much and their processes were not complicated. The possible risks are: The credit risk between the customer and the debtor caused by the credit business [1]. By the 20th century, in bank management of credit risk, some simple measures, such as risk diversification, were usually adopted. But since the 21st century, the economy has the unprecedented growth rate, bank profits have also increased suddenly, and the need for innovative management methods has become urgent. In particular, the emergence of big data technologies has made possible profound changes in the banking industry. With the help of data processing analysis, banks can comprehensively and systematically understanding and mastering customer information involves behavioral habits and credit cycles. Therefore, based on big data technology, banks can achieve improvements and optimizations in many aspects, such as precision marketing, product innovation, and risk management [2].

In the era of big data, the financial industry will usher in new development opportunities, and necessary strategic adjustments are also inevitable. As far as commercial banks are concerned, the data they have is very huge. If these data can be used reasonably, the business development philosophy, development model, profitability, operating efficiency, and risk management of banks are of great significance. Therefore, for commercial banks, grasping technological development trends is a top priority, and only scientifically and rationally using the data they have, In order to consolidate competitive advantages in the context of big data, the key lies in making full use of big data resources, and then providing favorable tools for the credit risk management and control of commercial banks [3].

2. Analysis of the Credit Evaluation System of A Bank of China Branch

A branch of Bank of China is a secondary branch of one of the five state-owned joint-stock banks. For many years, many indicators such as deposits, loans, intermediary business income, profits, and number of customers have been among the top peers in Hebei Province, especially in terms of credit fund investment. Facilities such as facilities construction, industrial enterprise development, small and medium-sized enterprises, residential buildings, and consumption have all provided large credit support, and loan balances have consistently ranked at the forefront of a city's peers. Currently, with the implementation and promotion of big data, specific to China a certain

branch of the bank, due to the poor domestic economic environment, has made a considerable number of small and medium-sized enterprises difficult to operate, and even some large and medium-sized enterprises have encountered a lack of funds. The downturn in the real economy has brought some negative effects to the financial industry.

At the current stage, a branch of Bank of China needs to evaluate customers' credit risk through six aspects when conducting customer credit management, mainly including: analyzing customer credit conditions, measuring credit control, collecting and reviewing customer materials, determining credit ratings, and determining appraisers. And the preparation of customer evaluation reports. Different departments also need to undertake different credit risk evaluations. The credit operation department is responsible for the credit information input work, which is mainly responsible for the main process control of public credit business; and the credit operation management department is the exporter in the entire credit risk evaluation system is responsible for detailed credit evaluation reports.

3. Problems With the Existing Credit Risk Evaluation System of A Bank of China Branch

In order to better achieve effective control of operating risks, a bank has established a corresponding risk evaluation system during the development process, and with this system, the credit rating of loan companies can be divided. However, in terms of the purpose and methods of credit evaluation, etc. From the point of view, there are corresponding defects. The specific analysis is as follows:

(1) Inadequate credit risk evaluation system

At present, the credit risk evaluation system used by a branch is mainly an analytical method determined by the Bank of China. However, for this method, it is actually based on foreign research and is not combined with actual domestic conditions. It is optimized accordingly, which leads to its application limitations. Based on this, in the subsequent development process, it needs to be improved in accordance with China's national conditions to make it more suitable for the domestic environment.

(2) Unreasonable selection of indicators of credit risk evaluation system

At this stage, a branch's evaluation and analysis of user credit is based on the financial data of the previous enterprise development process, that is, by exploring the development of the enterprise in recent years, and then selecting the corresponding evaluation. The analysis of indicators is used to determine the credit rating of the enterprise. However, for this method, the effective determination of the company's ability to pay debts cannot be achieved. Although the credit evaluation needs to be explored in combination with various factors. However, the most critical of these factors is the business situation of the enterprise, especially in terms of cash flow. It can be seen that the financial data corresponding to the company's previous business process can be regarded as a reference for credit ratings. However, it cannot be considered the sole evaluation criterion.

(3) Lack of analysis and comparison between different industries

At the current stage, for most domestic banks, there are actually corresponding deficiencies in industry analysis. When conducting corporate credit evaluations, the industry in which the company operates also has a corresponding impact on credit. Through the development of these years, the vast majority of banks have gradually realized this problem and carried out industry analysis. However, as far as the actual situation is concerned, the corresponding meticulous work is insufficient, which makes it impossible to compare effectively between different industries.

(4) Improper inspection and application of credit risk evaluation results

During the development of commercial banks, more and more banks gradually realized the importance of credit ratings and carried out corresponding research in this regard. However, due to the influence of some factors, commercial banks are not the corresponding degree of attention is low. In addition, due to policy restrictions, the application of rating results is limited, and it cannot be applied to the pricing of financial instruments. It can be seen that although the user credit evaluation can control credit risk to a certain extent. However, in essence, credit risk management is

not well implemented. Compared with foreign countries, domestic research on credit evaluation. The time is short and the evaluation results obtained have not been fully recognized by the society. From this, it can be seen that during the development of commercial banks, the use of credit evaluation results has not been well realized, and it needs to be optimized in this regard.

4. Improvement of Credit Risk Evaluation System of A Bank of China Branch

Table 1. Factors affecting the credit risk rating of commercial bank customers

Influence index	Related factors
Adaptive capacity of an enterprise	Management level
	Quality of staff
	Leaders some ip quality
Capital credit	Quick ratio
	Liquidity ratio
	Loan repayment rate
	Loan payment rate
Operation and management	Inventory turnover
	Sales contract performance rate
	Growt some rate of sales revenue
Earnings performance	Return on total assets
	Return on equity
	Profit growt a rate
	Sales profit margin
Prospects for development	Market prediction
	Industry prospect
	Development planning and measures

Big data information technology has become a feature of the contemporary era, and at the same time, traditional financial development methods have changed dramatically. The rise of the Internet financial industry has also provided more opportunities for many commercial banks. From the perspective of risk control, using big data. Data technology can better understand customer information, and comprehensively evaluate and analyze customer risks. Among many enterprise risk evaluation indicators, the factors that have a greater impact on enterprises are: profit performance, capital credit, development prospects, and corporate quality. As well as business management, use these indicators to establish a new user credit evaluation system. In the actual analysis of each factor, it is necessary to analyze it from different perspectives, as shown in the following table.

(1) Enterprise quality

For enterprises, the quality is mainly the various capabilities that the enterprise has in all aspects of operation and management. The quality of the enterprise mainly includes a variety of capabilities and qualities such as enterprise management, employee quality, and leadership quality. When analyzing the management capabilities of an enterprise, it is necessary not only to understand the management system of the enterprise, but also to analyze other supporting mechanisms and guarantees needed in the management process of the enterprise, so as to better understand the comprehensive strength of the enterprise. It is a comprehensive analysis of corporate leadership, management concepts, organizational capabilities and other abilities. The quality of enterprise employees mainly includes employee organizational structure, employee work efficiency, and team collaboration capabilities.

(2) Fund credit

Most of the funds and credit information owned by the enterprise comes from various trade behaviors generated during the production and operation of the enterprise, such as the annual marketing volume of the enterprise, the ability to repay debts, and the ability of the company's

capital management. When evaluating customer credit it is necessary to focus on the analysis and research of the client's funds and credit, and often use indicators such as quick ratio, asset-liability ratio and debt repayment ratio as measurement indicators.

(3) Management

Operation and management is an important link in the operation and development of various enterprises, which directly affects the profitability of the enterprise and also greatly affects the development prospects of the enterprise. Usually it uses indicators such as accounts receivable turnover rate and inventory turnover rate to conduct analysis.

(4) Profit performance

By analyzing the profit performance of the company, you can fully understand the profitability of the company's operation and development process. When the company's profit performance is low, it means that the company's credit risk is higher. Usually, the profit growth rate, total Return on assets and return on equity.

(5) Development prospects

The assessment of enterprise development prospects is to better understand the future development of the enterprise, and thus to help with risk assessment. It mainly includes market analysis, industry trend analysis, etc.

5. Conclusion

In the future, the difficulty of credit risk management will inevitably increase, and wealth management institutions will face major challenges in credit risk. For commercial banks, it is imperative to establish a scientific, reasonable, accurate and effective credit risk monitoring and evaluation system. The arrival of the era of big data requires the continuous introduction of new tools to objectively and effectively evaluate customer credit, thereby achieving the purpose of credit risk prevention and control.

According to the specific situation of a Bank of China branch, this article analyzes its credit rating system to determine the current shortcomings in this regard, analyzes the reasons for the problems in the evaluation system, and lays the foundation for the design of the Bank of China's credit risk evaluation system. Then, a new scientific and effective user credit evaluation system was explored and corresponding evaluation indicators were investigated. The analysis of the evaluation system established was of practical significance.

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