Preliminary Study on Credit Risk Management under Internet Finance Based on Big Data Age

Ma LiYun
Northwestern Polytechnical University Mingde College 710000
Corresponding author’s e-mail: aierlankafei666@163.com

Abstract: Under the support of modern technology, Internet finance as a new financial model gradually improves the work structure and changes the traditional forms of financial work, so that the work becomes more convenient. After the emergence of Internet finance, due to the short time of its development, we should also introduce modern technology in the process of carrying out related work according to financial management, and use big data to analyze working data, and find that many work will be difficult to carry out because of lacking of scientific management mechanisms during the period of Internet financial application so that it cannot achieve the desired effect. There are great security risks in the Internet financial market because of lacking of credit risk management. In order to improve our financial system, we need to pay more attention to the credit risk management. According to the problems existing in the operation of Internet finance, we put forward some solutions.

1. Introduction
Internet finance with the traditional institutions of electronic commerce and the financial institutions set up by the network is a new financial model that appears under the support of modern technology. Based on this, there is an integration of other financial businesses, covering third-party payments, crowdfunding, P2P network loans and online financial management. Beginning in 2013, after China entered the new normal, Internet enterprises vigorously develop network technology and innovate their business models. Most Internet enterprises enter the financial market one after another, which make the scales of Internet financial market expand day by day, the merchants of network loan platform P2P were around 300 until 2017. At the same time, in the practical application of Internet finance, because of the absence of management mechanism, credit risk management can not solve the credit problems existing in the work, which leads to many financial problems, and the situation of default is increasing day by day. At the same time, the network loan platform management has also been greatly impacted. Financial fraud consumption and other situations have become common problems in the financial market, seriously affecting the development of Internet finance. In order to solve the large-scale security problems of Internet finance, with the help of big data and other technologies, the credit risk system is constructed to create a stable and safe working environment for the financial market.

2. Problems of Credit Risk Management in Internet Financial Market
The emergence of the Internet financial model greatly facilitates people's work and life and gets excellent performance in its development. But with the development of Internet financial model, it is found that there are many problems in the application process. Because the financial system is not perfect and the credit risk management is absent, the Internet finance cannot carry out the work
according to the predetermined goal. In the Internet market, it is necessary to perfect the credit risk management system and construct a scientific risk management system so as to solve the credit problems existing during the financial operation.[1]

2.1. Lack of Credit Risk Control Means

The Internet financial market should run in a safe state, considering the structure forms of the changeable linkage of Internet finance, any link in the financial system has problems, which will affect the Internet financial model. Therefore, Internet financial credit risk management becomes extremely important, considering that Internet financial credit risk has extremely high concealment, it is difficult to find a good way in a short time. Risk identification analysis and discrimination become very important. It is necessary to solve the problem of not sharing information with the credit information system of the People's Bank of China in the actual work in the past. Under the rapid development of network technology, it is necessary to introduce big data technology, define the working system and construct the data information base.[2]

Risk audit also needs to rely on the network platform. First the system examine and verify borrower credit, but this way is not reasonable, not in line with the current actual situation at the current stage. With the rapid development of the Internet, financial information is in explosive growth. The traditional credit risk model is obviously unable to cope with the current financial work, so it is necessary to optimize the risk analysis model with big data technology, consider the factors that affect the work, improve the work efficiency with the help of modern technology, and analyze the development state of the Internet financial market under the premise of ensuring that the work reaches the goal.[3]

2.2. Lack of Design of Credit Risk System

In accordance with the provisions of the Insurance Law and the Banking Law, the financial sector is judged and the content of Internet finance is reasonably regulated. According to various new types of financing business, such as P2P loans and crowdfunding, combined with the performance of Internet finance in their work, and in accordance with the provisions of the Securities Law, the Insurance Law and the Banking Law, the contents of Internet financial management should be further standardized to ensure that the relevant work has scientific and reasonable characteristics, and the convenience and legality of third-party payment should also be paid attention to.[4]

After initially standardizing the contents of Internet finance, we should further improve the third party payment channels. Virtual currency, code-sweeping payment are the main modes of public payment, but the corresponding systems are still insufficient to ensure the security of payment. If there are economic disputes during payment, it is difficult for victims to defend their rights through legal means. In terms of the regulatory system, the situation of long-term supervision is very common, most enterprises use cross-border operations to develop business through credit payment, fund financing, insurance guarantee and other ways. However, the regulatory problems result in weak regulation, many problems cannot be effectively resolved.

2.3. Insufficient Measures of Transaction Monitoring

Payment, settlement and information transmission are commonly used means in the Internet financial market to carry out related work in the virtual environment. However, from the current data, it is found that the market information is not symmetrical, which forms a large credit risk. Under the Internet financial system, it is necessary to further improve the work content, enhance the rationality of risk evaluation, and reduce the impact of credit risk on financial work to carry out the work of accounting for the purpose of transaction, identification of the subject, credit default record and other work. At work, further optimization of the validation schemes is required. In view of the retention funds in Internet financial work, scientific control is proposed. The lack of retention funds tracking, resulting in a large number of funds stranded in third parties. If the scientific management plan can not be put forward, it will form very serious credit problems due to the lack of supervision and guarantee of
funds.

3. Ways to Improve Credit Risk Management in Internet Financial Market

Internet financial management needs to synchronize with social development, analyze the trend of social development, understand the Internet financial management system and the problems during operation. Based on this, it is necessary to introduce modern technology, perfect management content, clear development goal, combine laws and regulations, perfect Internet financial management content, strengthen Internet financial management.\(^5\)

3.1. Improve Laws and Regulations and Strengthen Supervision

Internet finance, as a new financial management mode, in order to ensure the smooth progress of the work, it is also necessary to customize the legal provisions in accordance with it, improve the content of risk management, formulate relevant mechanisms, and strengthen the financial risk control of the Internet. All work can be carried out smoothly under the protection of the law during the operation of the Internet financial model by carrying out on-site examination and off-site combination of ways to strengthen the control of funds, and set out the introduction, electronic voucher tracking and other work standards. Besides, we should also solve the existing credit problems of finance, construct a large database, analyze the information of previous work, and study the qualification work in financial management. On the premise of data analysis results, further improve the Internet financial management system to make it recognized from the public.\(^6\)

3.2. Construct Supervision System and Strengthen Supervision

Building a regulatory system and strengthening supervision are important ways to protect the smooth operation of the Internet financial model. Therefore, it is necessary to strengthen the links between the CIRC, CSRC, Central Bank and CBRC with the help of mature Internet operation technology to formulate a scientific and orderly communication mechanism. Use big data technology to collect relevant work data. Through the analysis, we find out the problems existing during the application of the system to improve the communication mechanism in time and avoid the loopholes in supervision. After big data citation, it can improve work efficiency and avoid the vacuum of supervision, at the same time, it should further optimize the administrative function of industry association, so that Internet finance can run smoothly. At the same time, the professional committee on Internet finance, aiming at the Internet industry institutions, clearly regulates regulations, which promotes the development of Internet finance and ensures the stable operation of financial markets to a large extent.\(^7\)

For trade associations, in order to further improve the effect of work, they must always pay attention to the development of society, find out the problems existing during work in time, perfect industry standards, standardize Internet financial service regulations, and ensure that financial work can be carried out smoothly. During the development of new business, they should follow the financial business management norms, reduce the risk factors in the work, and make the Internet financial market flourish.

3.3. Improve Management Means and Strengthen Risk Management

The construction of supporting credit system is an effective mean to improve Internet financial management. Under the Internet financial system, during the operation of the Internet financial market, on the basis of user information collection, additional supporting credit information system can be added to connect with the central bank credit information system. In the context of comprehensive sharing, according to the information already mastered, the credit evaluation results of individuals and user enterprises can be more accurate through the real-time updating the information and rich database.

Under the background of big data, we need to make full use of big data technology, cloud computing to mine data, strengthen the ability of data mining and analysis, extract valuable data from
massive information, and improve work efficiency. On the basis of comprehensive credit analysis, complete data collection, integration, processing and analysis, and construct credit scoring and review mechanism, a multilateral credit environment is created to eliminate the harm caused by credit risk under the role of credit risk assessment mechanism during the operation of the financial system.

Figure 1 shows the pattern of financial risk management under the action of big data.

3.4. Enrich System Contents and Improve Risk Management Level

During the construction of complaint platform, our country does not have rich working experience, so there are many problems in handling work. In the construction of complaint platform, our country can learn from western developed countries. In financial management, the Ministry of Public Security and the Central Bank need to establish a linkage working mechanism, set up a crime complaint center, receive complaints from users, collect relevant data, and make clear the form of credit risk performance with the help of financial market credit risk mechanism. In order to further improve the work effect, we can set up a complaint website, collect cases, analyze cases, and find out the problems existing during the operation of the Internet financial model according to the results of the analysis, take the real cases as an important voucher to improve the mechanism and enhance the rationality of the management mechanism.

Under the Internet financial system, it is necessary to complete Internet transactions, virtual currency and other work, and also need to strengthen the relationship between the Securities
Regulatory Commission and the Insurance Regulatory Commission. To ensure the healthy, stable and long-term development of Internet finance under the premise of multi-party cooperation, it is also necessary to analyze the form of social development, standardize the Internet financial system, find new development path, perfect the supervision system and strengthen the supervision. Financial regulators also need to further optimize the management mechanism, share information with the information industry departments, industry and commerce departments, standardize the management system of information electronics and other work, and ensure that Internet financial work is carried out in an orderly manner.

Internet finance is a new type of financial system, so it is necessary to make accident handling plan in time and efficiently according to the characteristics of Internet financial market. When an accident occurs, it can rely on early warning mechanism to solve the problems existing in Internet financial management in time, reduce the economic losses caused by the accident, and ensure the security and reliability of transaction information.

4. Conclusion
In the era of big data, Internet finance needs to combine the trend of social development flexibly, follow the relevant national policies, and perfect the financial management system. China's Internet financial model appears for a short time, so there will be a lot of problems in practice. In view of the problems existing in the Internet financial market, we must find out the root of the problems and perfect the organizational structures. Under the scientific and perfect laws and regulations, we should guarantee the Internet finance standardization legalization development, and reduce the impact on the financial market due to the absence of credit risk management and provide customers with quality services during the operation of Internet finance.

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