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Development and Protection of Internet Finance in the Era of Big Data

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Abstract: Starting from 2016, big data is widely used. The world has also entered the era of big data. Internet finance is also a topic that has received a lot of attention in recent years. Together with the arrival of COVID, Internet finance is developing rapidly. Internet finance will become more of a big trend in the future. People primarily use third-party payment, online lending, direct fund sales, crowdfunding, online insurance, banking, and other similar services. At the same time, Internet finance also brings more new opportunities to the financial sector, but the new opportunities and innovations also bring some risk factors. Starting from the current situation of Internet and big data, the article finds that how to control financial risk and credit risk is a problem that needs to be addressed vigorously nowadays. Developing a good personal credit system is also a practical action that needs to be put in place. Through SWOT analysis and questionnaire, we analyze the public perception of the Internet and the credit risks in the development of Internet financial innovation, from which we can provide solutions to improve the regulatory power, thus promoting the safe and efficient development of Internet finance. In addition, through literature view, we analyze how to enhance people's privacy and the credibility of Internet finance.

Keywords: big data, internet finance, data protection, financial market, credit system

1. Introduction

So far, with the rapid economic development of the world, high technology has occupied an important position in various fields. This is also true in the field of finance. Internet finance is an emerging technology in modern society, which makes traditional financial institutions update a new financial business model by innovating a new type of business form that embeds traditional financial services on the internet technology platform, i.e., through big data and unique algorithms provided by Internet companies [1]. People also began to gradually use online services instead of offline services. Internet finance has attracted a large number of loyal users with its efficiency, accessibility, project diversity, convenience, and small amount of participating capital [1]. However, the emergence of new approaches like Internet finance can also bring many flaws and loopholes around people [1]. Many systems can be broken through high technology. This also gives consumers and users some huge security risks, such as data leakage, hacking and viruses. How to solve these big vulnerabilities and how to control the financial and credit risks are the issues that need to be addressed strongly nowadays. Therefore, this research uses SWOT analysis and a questionnaire to understand the main vulnerabilities of Internet finance and to get more realistic information about the surrounding users'

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feelings. This will allow the Internet finance sector to be more aware of the potential crisis. If these major vulnerabilities are addressed, the rights of consumers and users can be protected. Internet finance can proceed to a whole new stage.

2. Swot Analysis

SWOT is composed of the initials of four English words: strengths, weaknesses, opportunities, and threats. For the Internet retail business, it is both its own strengths and weaknesses and the opportunities and challenges of its external environment [2].

2.1. Strength

Internet finance has reduced direct costs. When using digital banking and online financial services, it is known through the Internet finance model that the A party who provides the funds and the B party who needs the funds can transact directly on the financial platform. B can be traded directly on the financial platform, so the Internet financial model allows both parties to reach a win -win situation and direct capital contact [3]. Therefore, the lack of intermediary intervention also allows both party A and party B to reduce intermediary fees. Thus, fundamentally maximize the interests of both parties and reduce the transaction cost.

Internet finance includes cloud computing. Cloud computing is the process of computing that is heavily dispersed among many computers, breaking the original way of just using local computers or remote servers [4]. This allows cloud computing to be applied to Internet finance with very high security and fault tolerance. This also increases the speed of data computation.

2.2. Weakness

Internet finance has a large risk factor. Default risk exists in the P2P lending platform alone, which is the relationship between borrowing interest rate and borrower default risk. rongcai Hu, Meng Liu, Pingping He and Yong Ma found asymmetry between interest rate and default risk. The higher the borrower's income, the higher the default risk, and the pattern describing the relationship between default risk and borrower's age is U-shaped [5]. This asymmetry then increases the chance of loss of benefits for both Party A and Party B. Besides, Internet finance is a branch of the traditional financial field. Also, most of the Internet finance is done remotely. Therefore, the risks that traditional finance possesses; Internet finance will also possess.

Internet finance has the problem of privacy information leakage. In the process of using Internet finance, users will unconsciously click some buttons. Or the personal information that users fill in during online shopping is not 100% secure. A trader may transfer some insider information to an outside trader for free to better predict the size of the outside trader's trade and its impact on the clearing price, thus allowing him to make more profit [6]. This has led to the high number of security incidents concerning Internet finance nowadays. As a result, this has left users with some huge security risks, such as hacking and system viruses.

2.3. Opportunities

Internet finance provides a market and opportunity for many SMEs. In today's pandemic era, SMEs frequently face crises, such as lack of capital and financing difficulties. And the slow efficiency and high principal of traditional banks discourage SMEs. The emergence of Internet finance has turned the tide for SMEs as well. Besides, one of the major trends of Internet finance, Buy Now, Pay Later, is the most popular payment method among young people today. Buy Now, Pay Later (BNPL)

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transactions are expected to increase by more than $450 billion worldwide by 2021 to 2026. This means a further acceleration between 2019 and 2021 [7].

The explosion of COVID-19 has driven the development of Internet finance and increased the potential users of Internet finance. By 2021, 76% of adults worldwide now have an account with a bank, other financial institution, or mobile money provider, up from 68% in 2017 and 51% in 2011. Two-thirds of adults worldwide now make or accept digital payments, with the share in developing economies growing from 35% in 2014 to 57% in 2021 [8]. The exploding numbers also lay the foundation for the potential users of Internet finance. In the future, Internet finance will be valued and popularized worldwide.

2.4. Threats

There are significant security vulnerabilities in Internet finance. While caring for completion Internet finance offers great convenience to users, but it also poses potential security issues for them, such as privacy and financial security issues. Instead, the digital financial system is sometimes subject to more high-tech system attacks, such as hacking and virus interference. This puts users' money at risk.

Lax regulatory efforts against Internet finance. The widespread use of Internet finance has only been gradually popularized in recent years. The world is fighting the economic development disease by allowing Internet finance to develop freely while strengthening Internet finance regulation in each country. Many Internet security incidents occur in the "gray area". The law is unable to criminalize them. Therefore, countries need to regulate it more strongly and change the relevant Internet finance laws to punish the perpetrators of crimes that are at the bottom of the moral and “gray” areas.

The swot analysis provides a more academic understanding of the problems and vulnerabilities of the credit system in the care network. In addition, this study will use questionnaire to find out the real surrounding feeling of using internet finance. This study will help to understand the flaws of Internet finance from the users' perspective and help to optimize Internet finance to improve their perception of using it.

3. Questionnaire

The questionnaire resulted in a sample size of 44. In statistics, a sample size greater than 30 is valid. The research of survey is targeted at people of all ages who have used Internet finance. The main direction of comprehension is the awareness and feeling of using Internet finance in each age group, the development trend of Internet finance, and the views of each age group on Internet finance security issues, as well as sorting out the disadvantages of Internet finance to find the right breakthrough to fix to the maximum. The questionnaire consists of 14 questions, including multiple-choice and fill-in-the-blank options. The questionnaire consists of four parts: basic information about users; understanding of Internet finance; use of Internet finance; and Internet security. This gives us a better understanding of how users perceive the Internet and what they consider to be Internet risk issues in which areas.

Through the survey, it was found that most of the interviewees were 21-30 years old, at 66.7%. All of them (100%) use Internet finance, such as Alipay, WeChat pay in China, PayPal and apple pay in the U.S. Also 66.7% of them use mobile banking and online shopping software. and people nowadays have a very thorough understanding of Internet finance, with 50% of people think that Internet finance is financial services in the form of Internet, including payment, transfer, lending and financing. 22% of people think that Internet finance is all activities that include the spirit of Internet and thus the flow of money. Only 5.6% of the interviewees go for banking services, while 47.1% do not choose Internet finance because of the insecurity of money and information. Although 50% of the interviewees have not yet encountered any Internet financial security incidents, they do not feel

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insecure because Internet finance is virtual, rather they believe that the main source of risk is the increasing number of unscrupulous people using the Internet to commit financial crimes (50%). Therefore, 70.6% of the interviewees believe that Internet security technology needs to be further improved. Regarding the continued development of the Internet in the future, 33.3% of the interviewees believe that the Internet will become the main mode of financial services in the future, replacing the main position of banks; 33.3% of the interviewees believe that Internet finance will continue to develop, but banks are still the main body of financial services; finally, 33.3% of the interviewees believe that Internet finance will drive to change the development mode of banks, but ultimately they still rely on the Finally, 33.3% of the interviewees believe that Internet finance will drive to change the development mode of banks, but eventually it will still rely on the banking system to survive and will be absorbed by traditional banks. As a result, Internet finance will have a complementary relationship with traditional commercial banks in the future, and the traditional banking system will be able to rely on Internet finance for innovative development. Internet finance relies on the traditional banking system for continuous expansion and expanding its user base.

4. Conclusion

In conclusion, Internet finance is loved by users all over the world, and more and more young users are joining the Internet finance family. According to personal swot analysis and survey method, there are many potential problems with Internet finance. While users are aware of the convenience of Internet finance, there are also crises lurking around them, such as the security of privacy and information and the strength of regulation. This is also a wake-up call for the future development of the Internet. Therefore, if you want to make Internet finance more popular and promote development, Internet finance needs to further enhance the trust of users. In this case, Internet finance needs to pay attention to the credit system and regulatory strength, which also gives users the reliability of internal system upgrades and the security of external regulatory strength. This also lays the foundation for the future of Internet finance and opens up a whole new phase in the financial sector. There are some limitations to the methodology used in this paper. The number of respondents is still relatively small, and the age profile of the data sample is biased. Therefore, the limitations are not representative of the market segment. In the future, the research will further revise the questionnaire and distribute it equally to all age groups of the market clientele. In addition, the research will also pay more attention to the credit system, which is relatively necessary and important for Internet finance.

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