

The Development of Internet Finance in China under the Background of Digital Economy

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Abstract: Internet finance is a financial operation mode in the network era, which is produced to meet the requirements of the fast-developing e-commerce, and has been widely popularized throughout China. This paper mainly studies the development path of China's Internet finance under the background of the digital economy. This paper presents a thorough analysis of the growth of Internet finance based on the examination of big data technologies. This study reveals that one of the crucial avenues for market growth is now big data technologies and plays a key role in the development of Internet finance. In the future, it can be further developed from the directions of user portrait, risk control system and Internet finance industry chain.

Keywords: digital economy, big data, internet finance, user portrait

1. Introduction

At present, with the acceleration of the global digitization process, the arrival of the information age makes digital economy become a hot topic. Digital economy is the manifestation of the fourth generation of the industrial revolution. As the primary economic form of the world economy, digital economy has also become the core engine to promote China's economic development. At present, the development mode of digital economy in China is to transform and upgrade traditional industries, with the rapid development speed and the total volume ranking second in the world, which is inseparable from the national emphasis on the development of digital economy. Among the 36 key tasks proposed in the 2022 government report, digital economy, as one of the 36 priorities, has been expressed in a separate paragraph for the first time. Its status is the same as that of innovation and manufacturing, so it can be seen that digital economy is indispensable and important in our economy. Under this background, developing digital economy is of great strategic significance to promoting the modernization of economic system and grasping new opportunities of technological revolution and industrial transformation. This paper mainly discusses the development status and future path of China's Internet finance under the digital economy, and draws conclusions through literature analysis and experience summary. This paper provides a reference for the future development direction of the Internet finance field and summarizes the current development of the industry.

2. Analysis of Current Situation and Characteristics of Internet Finance in China

2.1. Status Quo

In recent years, our digital economy has developed rapidly. The size of China's digital economy reached 45.5 trillion yuan in 2021, with a year-over-year nominal growth of 16.2%, accounting for 39.8% of GDP, according to the China Digital Economy Development Report (2022) published by the China Academy of Information and Communications Technology. Digital economy plays a more stable and supportive role in the national economy. The "Internet Plus" has enhanced the level of financial infrastructure, increased our country's financial and global competitiveness and brought incremental change. A state of resource distribution known as Pareto optimality is the assumption that as the group of people and the distributable resources shift from one state to another, at least one person will benefit while no one will suffer. Theoretically, the market has a Pareto improvement process before it reaches Pareto optimality. Internet finance is fully in line with the Pareto improvement process -- without damaging the interests of traditional financial institutions and market participants, but also bringing benefits to some new enterprises [1].

With the bursting of the financial bubble in 2008, the pure financial market is no longer the stage for capitalists, and a large number of emerging scientific and technological forces have flooded in, among which "Internet +" is closely combined with finance. After more than ten years of development, a basic framework for the development of Internet finance has been established, but the talent pool is still small and the market coverage is still at a low level. Not only in China, but also in the world, the cultivation of such interdisciplinary talents is still in the exploratory stage.

2.2. Features

Low Cost. Different from the large amount of fixed financing required by the traditional financial industry, the low cost of Internet finance is reflected in two aspects. The first is the transaction cost. By virtue of the open, transparent and fair Internet, the information of users and enterprises can be accurately delivered through big data, bypassing the traditional intermediary and other third-party institutions, so as to reduce the transaction cost. On the other hand, it reduces the service cost and relies on the Internet platform for financial transactions after breaking away from the bondage of offline platforms, greatly reducing the capital investment involved in opening business outlets. Most importantly, the transactions of Internet financial platforms do not design problems such as monopoly profits, which are superior to traditional financial institutions and provide advantages for the development of Internet finance [2].

High Efficiency. As is known to all, the most remarkable feature of the Internet is not only fast running speed but also widespread. From the perspective of enterprises, financial transactions processed by computers digitize all information, make the division of labor clear based on programming logic, and improve work efficiency. At the same time, the expansion cost is reduced and the expansion speed is increased. The two complement each other to form a scale effect. From the perspective of users, the company tries its best to meet the needs of more users ignored by traditional banks based on its low cost. These needs become the driving force for the growth of enterprises and promote the improvement of business efficiency in reverse. Business investment decisions are highly influenced by business performance. It is presumable that home spending and Internet finance have a beneficial relationship. By investigating the relationship between consumer demand changes and corporate performance, it is concluded that Internet finance has the advantage of high efficiency.

Long-Tail. Long tail refers to the abandonment of popular focus after the larger capacity of the market, the low demand and neglected products into treasure. Although the demand of these large

groups, which are not taken seriously by traditional financial services, may not be as great as that of a small group, the benefits they bring together can not be underestimated. Thanks to the characteristics of low cost, high efficiency and wide coverage of the Internet, the spread range of products on the Internet has been greatly expanded. More users can buy them at low cost after learning about them through various channels, thus broadening the marketing channels of Internet finance. A little makes a lot and finally, quantitative change leads to qualitative change.

3. Problems Existing in the Development of Internet Finance under the Background of Digital Economy

3.1. Information Security Issues

Internet finance generally requires users to carry out real-name authentication, which leads to the leakage of personal information. The openness and transparency of the Internet has both advantages and disadvantages. On the one hand, it brings the advantages of fast and wide dissemination of information, while on the other hand, it also causes poor user information confidentiality and security vulnerabilities. The third-party payment platform shall strengthen the software confidentiality, prevent information leakage, and timely repair and handle possible loopholes. At the same time, relevant regulatory agencies should strictly control Internet platforms. Only by ensuring information security and making users more trusted in Internet financial products can the Internet financial market be further developed [3].

3.2. Technical Security Issues

This kind of risk is generally the risk problem caused by insufficient technical capacity. In the open network communication environment of Internet finance enterprises, the security of Transmission Control Protocol/Internet Protocol (TCP/IP) is in dispute, and the current key management and encryption technology is still developing. Internet transactions are more vulnerable to hacker attacks, resulting in unestimated losses. Therefore, Internet enterprises need to ensure the security of potential transaction technology risks to achieve stable development, which will inevitably increase operating costs and weaken the advantages of the traditional financial industry. Therefore, how to balance the risks and costs brought by technology security has become one of the difficulties for Internet enterprises at present.

3.3. Flow Security Issues

Liquidity security is no longer a unique risk of commercial banks, but now it has become one of the most common problems in the Internet finance industry, and its influence is more profound. Internet financial institutions need to ensure the effective circulation of funds to meet different needs such as asset growth or payment of customers' maturing debts, which leads to fund management defects such as short supply. In order to prevent the large area run caused by short-term debt default and default, enterprises need to formulate multiple prevention strategies, adjust the proportion of "standing guard funds", forecast liquidity risks, and minimize possible losses.

4. Analysis of the Development Path of Internet Finance under the Background of Digital Economy

4.1. Development of User Portrait Application of Big Data in Internet Finance (Precision Marketing)

User portrait refers to the collection of user data and behavior through big data, so as to form a user task prototype, which is conducive to calling in the future. In the application of Internet finance, the application of user portrait can implement precision marketing to users according to their hobbies and labels, and recommend more appropriate goods and services to users. Therefore, this path is becoming one of the important means for the development of the Internet finance industry in the future. Relevant enterprises should further enrich the data dimensions of the big data system, enrich the data capacity as much as possible, improve the effectiveness of data analysis, improve the relevant computer algorithms, and then improve the level of automation, give full play to the advantages of the Internet, and apply the theory into practice [4].

4.2. Establish an Internet Financial Risk Prevention and Control System Through Big Data

Risk management is at the foundation of finance, and preventing and controlling risk is also the main concern of online financial transactions. At present, China's financial risk prevention and control system is not complete, so there is still a lot of room for development. We can refer to foreign P2P (Peer-to-Peer), build a risk model, estimate the user's usage limit, credit score and judicial information, and then calculate the user's repayment or default probability. By means of the reference point effect of P2P interest rates, internet finance will trigger changes in market interest rates. According to the definition above, since interest rates serve as the market's benchmark interest rates, the regulatory authorities can also require Internet finance platforms to set minimum margins at the same time, so as to reduce the operational risks of Internet finance, so as to make the interest rate of Internet finance market higher [5].

4.3. Establish a High-value Internet Financial Industry Chain Implementing Big Data Technology

Industry chain finance refers to the personalized design of each ring and section of the industry chain based on the core enterprises in the industry chain, so as to provide comprehensive solutions for the departments in the whole industry chain. By using big data and cloud computing technology, Internet companies can accurately analyze customer needs by browsing and inquiring customer trading information, and launch product designs that can meet customers' specific needs. At the same time, they can establish an information network for customers and share it with enterprises in the industrial chain in real time, so as to maximize the use of information. Finally, a comprehensive supply chain, industrial chain and information chain will be formed, and industrial chain Internet finance will be integrated into the commercial ecological environment to realize its highest value [6].

5. Conclusion

This paper mainly discusses the development status and future path of China's Internet under the digital economy. The development of Internet finance has already been developed for a long time, but the development of related fields has not been perfected in our country. In contrast to the conventional financial model, the theoretical logic and innovation path of this new financial model are not exactly the same, and there is a lot of unknown content waiting to be mined. This paper can also continue to explore the specific implementation methods and advantages and disadvantages,

future research in this industry can focus on the optimization and upgrading of user experience, model expansion and other aspects.

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