Impact of the Internet finance on Small and Medium Enterprises Financing under Big

Data evolution

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Abstract: Big data Internet financial companies, third-party payment platforms, peer-to-peer Internet lending platforms, crowdfunding Internet financing platforms, etc. platform and Internet financial portal platform are the key examples of how internet financial model innovation is portrayed. Four primary areas primarily represent the effect of Internet finance on the financing of small and medium-sized businesses: the mechanism of reversal of traditional financial institutions; the financing targets of small and medium-sized businesses; Financing services for small and medium-sized businesses are more focused, more thorough, and scientific, and financing costs have decreased dramatically.

Keywords: Big data, Internet, finance

1. Impact of traditional financial profit model on small and medium sized enterprises financing

The knowledge gap between the fund supplier and the fund demander is the foundation of the conventional financial profit model. A single fund provider is subject to greater fund demander monitoring expenses, search costs, contract costs, bargaining costs, and contract costs. The price of requiring the provision of money The agency cost of the fund provider, which is also the difference between the bank's deposit and loan, may be collected by the bank if the bank is looking for an agent. Fund providers are chosen based on their risk preferences, and the majority of them have established themselves as the core of the growth of conventional financial institutions. The differential in interest rates between deposits and loans is the foundation of the conventional financial profit model. Controlling deposits and loans is the responsibility of traditional financial organizations. Fund providers can only get fixed returns because the deposit interest rate is not market-oriented. Controlling loan issuance is the main priority of conventional financial institutions. The traditional financial loan market has turned into a seller's market since it is challenging for fund demanders to directly receive funds from fund suppliers. Its investing strategy aims to dispel myths while protecting the truth for individuals who require financial assistance. The typical financial profit model, from the viewpoint of capital demanders, is for them to share their triumphs, rather than giving them assistance. Because small and medium-sized businesses have relatively high information costs, high market transaction costs, and fewer mortgage assets than large-scale businesses, the financing costs of small and medium-sized businesses that can obtain loans from traditional financial institutions are frequently higher than those of largescale businesses. This subtly raises the burden on small and medium-sized businesses and prevents the expansion of businesses. Many innovative businesses, asset-light businesses, service-oriented businesses, small and micro businesses, etc., find it challenging to meet the fundamental requirements for traditional financial loan issuance, making it difficult for them to obtain funding. Despite this, many of these businesses will go on to become outstanding businesses in the future.

Demanders who are turned away by conventional financial institutions for funding seek for fund providers who aim for better returns. This portion of the fund provider is faced with enormous search costs, negotiation costs, contract costs, litigation costs, etc. due to the high costs associated with private financing. Compared to typical financial institutions, the cost of capital is significantly greater; on average, it is around four times more. This subtly raises business expenses, making it harder for small and medium-sized businesses to survive. Both the inventory and accounts receivable of small and medium-sized businesses have expanded dramatically in recent years, as has the phenomena of these businesses fleeing. Because traditional financial institutions have information asymmetry towards small and mediumsized enterprises when compared to large enterprises among capital demanders, and because traditional financial institutions are in the loan sellers' market, it is not difficult to see that the profit model of traditional financial institutions will inevitably result in high financing costs and difficulty in financing for small and medium-sized enterprises. The additional expense and risk brought on by the flaw in its own profit model will be added to the cost of small- and medium-sized businesses' borrowing.

2. Internet finance on the financing of small and medium-sized enterprises and big data

Cloud computing-based big data solves the information asymmetry between traditional financial institutions' capital suppliers and demanders. The intermediary function of traditional financial institutions and the main role of capital allocation will be gradually weakened. Fund suppliers and demanders use big data to finance Platform entities form spontaneous aggregation and rapid dissemination, replacing traditional financial institution channels for financing and lending. The main body of the Internet financial platform has opened up the entire value chain of fund suppliers and demanders. Both the inventory and accounts receivable of small and medium-sized businesses have expanded dramatically in recent years, as has the phenomena of these businesses fleeing. Because traditional financial institutions have information asymmetry towards small and medium-sized enterprises when compared to large enterprises among capital demanders, and because traditional financial institutions are in the loan sellers' market, it is not difficult to see that the profit model of traditional financial institutions will inevitably result in high financing costs and difficulty in financing for small and medium-sized enterprises. The additional expense and risk brought on by the flaw in its own profit model will be added to the cost of small- and medium-sized businesses' borrowing, so as to select reasonable loan granting objects. It is not difficult to understand that the way Internet finance operates against a backdrop of big data not only eliminates the information asymmetry between the supply and demand sides of money, but also improves the distribution of funds. The major body of the financial platform guarantees the financing price, which is properly established through data analysis and project appraisal of the fund demand side and satisfies the requirements of both the supply and demand of funds.

The establishment of the main body of the Internet financial platform, its growth path, market selection, and government supervision are the key points of the impact of Internet finance on small and medium-sized enterprise financing against the backdrop of big data. Second, in contrast to the profit model of traditional financial institutions, Internet finance in the age of big data. What are its business models, and lastly, how will Internet finance affect small and medium-sized enterprise financing?

Let's use the influence of e-commerce platform Internet finance as an illustration.

2.1. Internet financial platform

The growth trajectory of conventional financial institutions differs from the core of the Internet financial platform. Traditional financial institutions are monopolistic, have barriers to entry imposed by the industry, and are shielded by government regulations. Its loan business is in the seller's position given the assumption that neither the deposit insurance scheme nor the interest rate on deposits are marketized. Because their current businesses get significant benefits from the system's protection, traditional financial institutions lack the ability and competitiveness necessary to innovate products, businesses, and business models under market conditions. Internet financial platforms have the platform function of opening up logistics, service flow, information flow, and capital flow based on a large number of consumers and a huge amount of data thanks to the gradual release of financial licenses and the emergence of Internet enterprises. The formation of these Internet financial platform organizations is the product of market choices, based on an accurate understanding of customers and a complete awareness of the market, and they are the source of ongoing innovation and change. The market must serve as the foundation for building the main body of the Internet financial platform, and players in the market are free to select between the supply and demand of funds. Of fact, there is no way to divorce the government from the growth of the Internet financial sector. The government's job is to regulate and effectively support the online financial market. The guiding idea is to respect market decisions, refrain from meddling in the market, and keep the market healthy. Clarify the legislative level's regulatory subjects, obligations, and standards first. Due to the complexity of Internet finance and the innovative regulatory topics, they collaborate on the basis of clearly defined roles to prevent free-riding between regulatory subjects. As a result, qualifications, risk prevention, and other criteria should be made apparent. Second, provide an access and exit system for the Internet financial market to stop ruthless competition and its negative effects on financial stability. The exit mechanism also encourages the development of new Internet financial platform firms. Last but not least, improve the information disclosure of Internet financial platform organizations and the security management of supplier money. Through capital security management and information disclosure systems, the government controls Internet financial platform companies in an effort to thwart their profit-seeking behavior and protect the growth of the online financial sector.

2.2. Internet finance profit model

The main portion of the Internet financial platform currently uses search engines, data, cloud computing, and social platforms. This reduces the information asymmetry between the supply and demand sides of funds and leads to the production of a variety of profit models that are distinct from traditional financial models. First, financial Internet companies using big data. huge data Internet finance companies have amassed a significant amount of user transaction data and the ability to analyze and mine user consumption patterns and supplier transaction behavior in order to more accurately predict user consumption behavior and supplier lending capabilities. These companies also offer marketing services for traditional financial institutions and financial service platforms, loan risk management, and other services to add value. Third-party payment platforms are the second. In the absence of credit guarantees, third-party payment serves as an independent "intermediary platform" between buyers and sellers. A specific foundation and credit guarantee should be present on the intermediate platform itself. In order to offer its platform consumers high-quality and practical credit and other financial services at a cheaper cost, the third-party payment platform collects complete information on customers' purchase, payment, settlement, etc. The third is the peer-to-peer lending website. Through the third-party P2P Internet lending platform, the fund demander and fund supply are immediately matched.

The primary component of the P2P Internet lending platform primarily manages, rates, and manages the fund supplier's prices while also providing credit information. In addition, it selects competitive interest rates for capital demanders in the market, and it makes money by charging service fees to both the supply and demand sides of the money market. Fourth, online venues for crowdsourcing. The crowdfunding Internet financing platform receives its funding from a large number of dispersed fund providers. The platform for online financial portals is the fifth. The products of traditional financial institutions can be purchased through internet financial portals, and customers can search for and compare prices on these products before making a purchase. This increases competition between traditional financial institutions, promotes the marketization of interest rates, and benefits both the supply and demand sides of the capital markets. It is clear that the aforementioned five advances in Internet financial profit model have satiated both capital providers and capital demanders. Based on how to more effectively meet both the supply and demand sides of the capital market, reduce the profit margin of the traditional financial institution's profit model, and increase capital allocation efficiency.

2.3. Research on the impact of Internet finance on the financing of small and mediumsized enterprises

It is easy to see that Internet finance offers advantages over traditional financial institutions in terms of information, transactions, service, and cost when it comes to resolving the funding of small and medium-sized businesses. Fundamentally, it addresses the issues that traditional financial institutions have with excessive financing prices and trouble financing small and medium-sized businesses. It primarily manifests in four areas: Creating a reverse coercion mechanism for conventional financial institutions comes first. The established position of conventional financial institutions has been significantly weakened by the innovation and development trend of the Internet financial model. It has changed from being a market that was primarily for sellers to one where buyers and sellers have a wide range of options. Internet finance enables "voting with their feet" by allowing both capital suppliers and demanders. Traditional financial institutions have been obliged to participate in the development of Internet finance due to the freedom of choice and the loss of consumers, which has a favorable effect on the financing of small and medium-sized businesses. Second, a more thorough and scientific selection process was used to choose the small and mediumsized businesses. In the big data era, small and medium-sized businesses can be categorized into those that are part of the big data Internet platform and those that are not. sales data, certification information, financial data, corporate credit monitoring data, and other indicators analysis and mining are used to examine the innovation, operation, financial, and other behaviors of small and medium-sized businesses and to uncover potential.

Due to data demand and market allocation outcomes, small and medium-sized businesses outside of the big data Internet platform will be able to hire skilled data analysis organizations through third-party and third-party and The company studies and evaluates Small and medium-sized businesses with financing needs, specializing in SMALL AND MEDIUM-SIZED ENTERPRISE operation data, and, if necessary, conducts field research through outsourcing. It is clear that in the age of big data, small and medium-sized businesses both inside and outside the main body of the Internet financial platform can have their loan needs addressed and evaluated scientifically by big data. In the era of big data, due to the changes in the financing and mortgage methods of small and medium -sized enterprises, it is no longer the mortgage and guarantee of securities, tradable land use rights, housing assets, etc. that traditional financial institutions value, but a reflection on the current operating

capabilities and the data analysis and mining of its development potential and the Internet finance in the era of big data make the financing of small and medium-sized enterprises a real benefit, rather than sharing its success. It is more accurate to serve the financing needs of small and medium -sized enterprises. Due to the characteristics of small and medium-sized enterprises' financing that are less frequent, urgent and short, it is difficult for traditional financial institutions to correctly meet the loan amount and loan time. There is no need for waste. In the era of big data, the main body of Internet finance handles the acceptance of small and medium- sized enterprise loan applications in a timely and effective manner, and can issue small and medium-sized enterprise financing in the correct amount at the correct time and place. To create value for the development of small and medium-sized enterprises, the Internet financial platform in the era of big data does not simply meet the financing needs of small and medium- sized enterprises. The Internet financial platform in the era of big data can be integrated into the whole process of operation of small and medium-sized enterprises, and its contact channels, payment methods, and marketing methods have brought new changes. Provide customers, capital, market and other integrated service needs for the development of small and medium-sized enterprises. Fourth, the financing cost of Small and medium-sized enterprises has dropped significantly. Due to the help of search and price comparison, the information cost of small and medium-sized enterprises is greatly reduced in the era of big data, providing small and medium-sized enterprises with attractive interest rates after market competition, which is far lower than traditional financial institutions and private loans. interest rate. At the same time, the significant reduction in operating costs of Internet financial platforms in the era of big data will also correspondingly reduce the financing costs of Small and medium- sized enterprises. The Internet financial platform in the era of big data can correctly price the financing of small and medium -sized enterprises.

2.4. Research on the impact of e-commerce platform Internet finance on small and medium-sized enterprises

Small and medium-sized business funding through an e-commerce platform Three components make up internet finance: an e-commerce platform, a fund demander, and a fund provider. The multi-platform market competitiveness pattern has evolved as the Internetbased e-commerce platform has increasingly matured, enhancing the financing requirements of small and medium-sized businesses. On the capital demand side, there are also a lot of small and medium-sized businesses. It is not difficult to see that the provider of funds, or more specifically, how to receive funds, is the key to the development of Internet finance on e-commerce platforms. The sources of fund providers for e-commerce platforms have become diversified. In the future, there will be mainly the following types: First, the e-commerce platforms themselves set up small loan companies. Second, e-commerce platforms use bank licenses for financing, such as Alibaba's small deposit and small loan model, and Tencent's large deposit and small loan model. Third, as a platform provider, e-commerce platforms provide rating, pricing and guarantee services for platform users, which are chosen by investors. Fourth, e-commerce platforms use their own data to provide services to financial institutions, acting as an intermediary, and funds are provided by financial institutions. Ecommerce platform Internet finance provides financing for small and medium- sized enterprises, whether it is independent B2C platforms such as JD.com and Suning.com, which purchase goods from small and medium-sized suppliers, and then rely on their own ecommerce platforms to sell goods, or Taobao sales platform- style B2B and B2C ecommerce, These third- party Small and medium- sized enterprises accumulate a large amount of data and transaction information in the sales process and in the transaction process with independent B2C platform providers.

The e-commerce platform analyzes these data to provide corresponding loan amounts for Small and medium-sized enterprises. Loans can be divided into credit loans and accounts receivable loans, and their operation models are all based on e-commerce platforms, which provide credit guarantees and commodity mortgages.

3. Measures to strengthen the financing of small and medium-sized enterprises by Internet finance under big data evolution

From the previous analysis, it is not difficult to see that Internet finance under the background of big data has a positive effect on the financing of small and medium-sized enterprises, but the development of Internet finance in the era of big data has a profit-seeking, monopoly brought by the platform's first-mover advantage, and negative effects on financial market volatility. Influence. The following discusses how to further strengthen the positive impact of Internet finance on small and medium-sized enterprise financing in the context of big data from four aspects. First, increase the construction of legislation and related policies and systems. Although the development time of Internet finance is short, its development speed is very fast. There have been a variety of innovation and variation models of Internet finance, and there have also been some cases of Internet finance platform entities infringing on fund suppliers and demanders. To lessen the volatility of Internet finance on the financial market, the state must regulate the Internet financial market at the legislative level, define and establish Internet financial models, Internet financial entities, and Internet financial market rules, and guide the Internet financial market through a policy system. Assure the stability and security of the financial system, create a system of rewards for small- and medium-sized business financing via the internet, and prod online financial platforms to invest money in SMBs. Develop multi-agent Internet financial platforms second. Due to a few monopoly phenomena caused by Internet financial platforms' first-mover advantage, the playing field between Internet finance and small- and medium-sized firm consumers is inequitable. Increase the funding alternatives available to small and medium-sized businesses through cultivating multi-subject Internet financial platforms, preventing one or more monopolies, and preventing others. Therefore, in order to ensure full market competition, the government supports potential, responsible, and small-scale Internet financial platform entities, while also establishing a threshold for such entities in order to prevent excessive market development brought on by vicious competition brought on by excessive Internet financial platform entities. Third, support the development of third-party data markets. It is easier for small and medium-sized businesses that have not joined the big data platform to meet the financing needs of the Internet financial platform under the influence of big data than it is for those that have. However, the development of Internet finance under the influence of big data has a positive impact on the financing of small and medium-sized enterprises within the platform. These small and medium-sized businesses do not benefit from the growth of Internet finance. Due to the fact that third-party data corporations have a certain public welfare aspect, the government must actively promote their development through regulations and financial resources while also regulating and preventing them. Conspiracy with Small and mediumsized enterprises to establish their exit penalty mechanism. Fourth, the coordination mechanism of the main body of the Internet financial platform.

4. Conclusion

Because of the big data-related relative independence of the major portion of the Internet financial platform, its collaboration with the third-party data provider is also straightforward. obtain the ideal setting. The information disclosure system and information sharing of Internet financial platform firms are essential to creating a mechanism for coordination between such entities.

5. References

• Yao, Y., Li, J., & Yun, L. (2022). Application of Flexible Budget Based on Company Profit Model: Taking

VK's Financial Data as an Example. Asian Business Research, 7(2), 88.

- Qiu, S. (2019, April). Thoughts on the Profit Model of Internet Finance. In *3rd International Conference on culture, Education and Economic Development of Modern Society (ICCESE 2019).*
- Wang, K., Tsai, S. B., Du, X., & Bi, D. (2019). Internet finance, green finance, and sustainability. *Sustainability*, *11*(14), 3856.
- Ma, X., & Lv, S. (2019). Financial credit risk prediction in Internet finance driven by machine learning. *Neural Computing and Applications*, *31*(12), 8359-8367.
- Guo, P., & Shen, Y. (2016). The impact of Internet finance on commercial banks' risk taking: evidence from China. *China Finance and Economic Review*, 4(1), 1-19.
- Ma, L. (2021, October). Intelligent Modeling of Financing Model Innovation for Small and Micro Enterprises under the Background of Internet Finance. In 2021 2nd International Conference on Smart Electronics and Communication (ICOSEC) (pp. 116-119). IEEE.
- Shen, Y. (2015). Study on model innovation of Internet finance. In *Computing, Control, Information and Education Engineering* (pp. 851-854). CRC Press.
- Yang, D., Chen, P., Shi, F., & Wen, C. (2018). Internet finance: Its uncertain legal foundations and the role of big data in its development. *Emerging Markets Finance and Trade*, 54(4), 721-732.
- Kaier, L. (2021). The impact of Internet finance on small and medium-sized enterprises financing in the context of big data. In *E3S Web of Conferences* (Vol. 235, p. 03011). EDP Sciences.
- Hasan, M. M., Popp, J., & Oláh, J. (2020). Current landscape and influence of big data on finance. *Journal of Big Data*, 7(1), 1-17.
- Akter, S., & Wamba, S. F. (2016). Big data analytics in E-commerce: a systematic review and agenda for future research. *Electronic Markets*, 26(2), 173-194.