

The Impact of Bank Credit on the Financing Constraints of Small and Medium-sized Enterprises in the Background of Digital Inclusive Finance

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Abstract: The rapid development of digital financial inclusion is profoundly changing the financing environment for small and medium-sized enterprises (SMEs). As an important driver of economic growth and innovation, SMEs account for a significant share of employment and GDP globally. However, the traditional bank credit model has long failed to effectively meet the financing needs of SMEs due to issues such as information asymmetry, high cost, and difficulty in risk assessment, resulting in serious financing constraints. Digital financial inclusion, through technological innovation and big data analysis, has significantly reduced credit costs, alleviated information asymmetry, and provided SMEs with more flexible and efficient financing channels. Research shows that digital financial inclusion can not only ease the financing constraints of SMEs, but also promote their innovation and growth, providing important support for building a more inclusive and sustainable financial ecosystem.

Keywords: Digital financial inclusion; Small and medium-sized enterprises; Bank credit; Financing constraints

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1. Introduction

Small and medium-sized enterprises (SMEs) play an important role in the global economy, driving innovation and economic growth. However, these enterprises have long faced the problem of difficult and expensive financing, mainly due to the asymmetric information in the traditional bank credit model, the high cost of risk assessment, and the lack of flexibility, resulting in SMEs facing many obstacles when accessing funds. These financing constraints not only limit the growth and innovation of enterprises but also affect the sustainable development of the economy to a certain extent.

The rise of digital financial inclusion offers new opportunities to alleviate these financing problems. Through big data analysis and technological innovation, digital financial solutions have significantly improved SMEs' access to credit, enabling them to access the funds they need in a more efficient and low-cost manner ^[1-2]. Innovative

platforms such as digital lending, peer-to-peer lending, and supply chain finance are reshaping the traditional financing landscape, providing SMEs with more flexible and diverse financing channels^[3].

2. The current financing situation of SMEs

Small and medium-sized enterprises (SMEs) play a crucial role in the economic development of both developed and emerging economies. As the backbone of national economies, they make a huge contribution in creating jobs and driving innovation. However, while their importance cannot be overlooked, SMEs often face significant challenges in accessing appropriate financial services, which constrains their growth potential and resilience.

Financing constraints for SMEs mainly come from the demand side and the supply side. From the demand side, many SMEs lack adequate collateral or financial transparency, which makes it difficult for them to get loans. Most SMEs lack fixed assets that can be used as collateral, and owners are often reluctant to give up control of their business in exchange for additional capital. Supply-side financing constraints stem from factors such as high risk, asymmetric information, and an unfavourable regulatory environment, which further exacerbate financing difficulties^[4]. In addition, traditional banks are usually more inclined to provide loans to large enterprises, which leads to limited financing options for SMEs. To address these challenges, fintech solutions are increasingly becoming an important alternative route to financing for SMEs. Innovative financing methods such as digital lending, supply chain finance platforms, and investment-based crowdfunding are gradually providing SMEs with tailor-made financing solutions. At the same time, digitization of business processes, such as e-invoicing and the application of blockchain technology, can help reduce barriers to financial entry and improve the efficiency of financing. These technological advancements not only improve the operational efficiency of SMEs, but also attract the attention of more alternative lenders and investors, thus broadening their financing channels^[5].

The availability of financing for SMEs varies significantly between countries and regions. Research shows that factors such as business size, type of ownership, and strength of legal rights play a key role in determining the availability of finance^[6]. In the West African subregion, for example, differences in access to finance are influenced by a combination of these factors and have an important impact on policy formulation. Another factor that influences the availability of finance is the age of the firm. Compared with start-ups, more mature enterprises tend to face more prominent financing constraints, which makes the financing landscape of SMEs more complicated in different contexts.

3. Digital financial inclusion

Digital financial inclusion has become a transformative force in bridging the financing gap for SMEs. By leveraging technology and big data analytics, digital financial solutions have improved SMEs' access to credit, enabling them to access necessary funds more efficiently and cost-effectively. Platforms such as digital lending, supply chain finance platforms, and peer-to-peer lending are reshaping the financing landscape for SMEs, giving them access to the financial resources they need.

Digital finance is changing the way SMEs are financed. In fact, with the development of technologies such as big data, cloud computing, and artificial intelligence, the credit process of the traditional banking sector is also evolving rapidly^[7]. This transformation has led to more efficient ways of obtaining credit, while also placing higher demands on the precision of credit risk assessment.

The rise of digital financial inclusion has not only increased the availability of financing for SMEs, but also

provided opportunities for those excluded from the traditional financial system. Innovative financial instruments such as peer-to-peer lending and mobile financial services give SMEs direct access to capital, thereby reducing costs and time delays associated with intermediation.

This emerging financing model provides SMEs with a more flexible source of capital, driving their innovation and growth, and alleviating the bias and rigid restrictions of the traditional credit system to some extent. However, the success of this model depends on an appropriate regulatory and legal framework to protect consumers and maintain market stability.

4. Bank credit and SME financing constraints

SMEs play a vital role in economic development, but they face significant obstacles in accessing bank credit. Most SMEs rely on commercial banks as the main source of external capital, but the operations and growth potential of these enterprises are often limited due to credit constraints. Survey data show that about half of formal SMEs lack access to formal credit, forcing them to rely on internal funds or informal sources of financing, such as family and friends, to stay afloat.

For banks, SME loans are one of their important sources of income. Banks make profits by providing loans to SMEs, but because of the relatively high risk of SMEs, banks face no small challenge in lending money. Therefore, the lending business targeting SMEs requires particularly prudent risk assessment and due diligence to ensure the repayment of loans and the bank's income stability.

Empirical studies have shown that financing constraints have a significant negative impact on the growth and sustainable development of SMEs. Studies in several countries have found that although they face similar economic backgrounds, the financing environment and credit constraints of SMEs vary from country to country, which directly affects the innovation ability and market competitiveness of SMEs. There is a two-way relationship between the supply of bank credit and the financing constraints of SMEs. On the one hand, the supply of bank credit determines the ability of SMEs to obtain funds; On the other hand, the financing constraints of SMEs will also affect their performance in bank lending.

Different types of banks also have different effects on SME credit ^[8]. Research shows that regional banks and credit unions are more willing to lend to local SMEs because they have a deeper understanding of the local market and are able to offer more flexible lending terms. In contrast, large banks are generally more cautious about lending to SMEs due to their centralized management and strict risk control policies. However, with the popularity of digital financial instruments, banks are likely to adjust their credit strategies to better meet the financing needs of SMEs, thus easing the challenges posed by financing constraints.

Financing constraints for SMEs mainly stem from the gap between the demand side and the supply side of credit. Many SMEs have difficulty obtaining loans from traditional banks due to lack of adequate financial transparency and collateral. At the same time, banks tend to be conservative in their credit assessments of SMEs due to asymmetric information, further exacerbating financing difficulties. At this point, digital financial inclusion, as an innovative solution, can effectively ease the financing constraints faced by SMEs.

Digital financial inclusion provides SMEs with more flexible and low-threshold financing channels through convenient digital lending, online financing, and crowdfunding platforms. The digital platform leverages big data and artificial intelligence to conduct in-depth risk assessments and help financial institutions better understand the repayment ability of SMEs, thereby reducing risks brought about by information asymmetry. In addition, digital

finance has also promoted the availability of credit, with financial institutions able to process loan applications more quickly through big data analysis, greatly improving the approval efficiency. Small and medium-sized enterprises can connect directly with investors through online platforms, further broadening financing channels^[9].

The spread of digital financial inclusion has also reduced information asymmetries. Increased transparency has enabled financial institutions to obtain more information and assess the credit standing of SMEs more effectively, easing the financing barriers caused by information asymmetry.

5. Policy implications and suggestions

In order to better ease the financing constraints of SMEs and promote their sustainable development, this paper puts forward the following four policy recommendations, aiming to optimize the financing environment of SMEs through multi-party collaboration and innovation, so as to enhance their growth and competitiveness.

5.1. Strengthening policy synergies

Governments, financial institutions, and SMEs should work together to develop and implement more effective financing policies^[10]. First, the government can provide loan guarantees, interest rate subsidies, tax incentives, and other policy measures. Second, financial institutions should actively research and develop more financial products that meet the needs of SMEs, such as flexible loan programs for start-ups or high-growth enterprises, supply chain finance products, etc., to meet the capital needs of enterprises of different sizes and stages of development^[11]. At the same time, a more complete financial management system and credit evaluation system should be established, so as to enhance trust in cooperation with financial institutions and enhance the availability of financing.

5.2. Increasing regulatory innovation

In the context of the rapid development of digital finance, regulators need to flexibly adjust relevant policies and regulatory frameworks to adapt to changes in the digital financial environment, while ensuring that consumers' rights and interests are effectively protected. In addition, regulators should relax some excessive regulations on innovative products on the premise of ensuring financial security, and support fintech companies to conduct business without affecting market stability and consumers' rights and interests, so as to promote technological progress and diversification of financial services across the industry.

5.3. Boosting financial education

To enable SMEs to take better advantage of digital financial products and improve their financing capacity, universal access to financial education is essential. Governments, financial institutions, and relevant industry organizations should enhance financial literacy training for small and medium-sized business owners and managers. At the same time, customized training and consulting services should be launched to address the financing difficulties unique to small and medium-sized enterprises, so as to help enterprises optimize financial management and financing decisions and improve their ability to obtain capital. In the long run, this will boost SMEs' self-adaptation and financing ability in the capital market, further promoting their healthy development.

5.4. Promoting technological innovation

In the current digital age, promoting financial technology innovation is of great significance for SME financing. Financial institutions should encourage and actively adopt advanced technologies such as big data analysis,

artificial intelligence (AI), and blockchain to improve the accuracy of risk assessment and the efficiency of credit approval ^[12]. Big data and AI technologies can provide banks and financial institutions with a more comprehensive credit assessment by analyzing a company's financial status, business model, and industry background, and reduce the risks caused by information asymmetry, thus enabling more SMEs to access financing ^[13, 14].

Through the implementation of the above policy recommendations, benign interaction and cooperation between the government, financial institutions, and SMEs can be formed, and the optimization of the financing environment of SMEs can be promoted ^[15]. This multi-party cooperation will provide strong support for the sustainable development of SMEs and promote the overall growth and innovation of the economy.

6. Conclusion

This paper looks at how digital inclusive finance helps ease financing difficulties for small and medium-sized enterprises (SMEs), and the role bank credit plays in that process. The study finds that digital finance clearly reduces financing constraints for SMEs. It also shows that banks play a key role by using digital tools to improve access to credit and reduce information gaps, which leads to more loans for SMEs.

This means that developing digital inclusive finance not only helps expand financial services but also offers a practical way to solve the problems of “difficult and expensive financing” for SMEs. To support this, policies should continue to build digital finance infrastructure, improve regulations, and promote cooperation between banks and digital platforms to help SMEs grow sustainably.

References

- [1] Huang Y, Huang Z, 2018, China's Digital Finance Development: Present and Future. *Economics (Quarterly)*, 17(4): 1489–1502.
- [2] Fu S, Pei P, Sun J, 2023, Digital Finance Development and Credit Risk of Commercial Banks. *Journal of Beijing Institute of Technology (Social Sciences)*, 25(1): 145–155.
- [3] Xie P, Zou C, 2012, Research on Internet Finance Model. *Financial Research*, 2012(12): 11–22.
- [4] Zhan M, Tang Y, Li S, 2020, Digital Finance Development, Channel Effect Difference and Monetary Policy Transmission Effect. *International Monetary Review*, 2020(5): 22–38.
- [5] Wang X, 2015, Research on Internet Finance to Help Solve the Financing Difficulties of “Long Tail” Small and Micro Enterprises. *Finance Research*, 2015(09): 128–139.
- [6] Gomber P, Kauffman R, Parker C, Weber B, 2018, On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, 35(1): 220–265.
- [7] Qiu H, Huang Y, Ji Y, 2018, The Influence of Fintech on Traditional Bank Behavior – Based on the Perspective of Internet Finance. *Journal of Financial Research*, 461(11): 17–30.
- [8] Gu H, Gao S, 2022, Whether Digital Finance Affects Risk Taking of Commercial Banks: Based on Evidence From 170 Commercial Banks in China. *Science of Finance and Economics*, 2022(04): 15–30.
- [9] Hu L, Dou Q, Liu C, 2022, Can Digital Finance Help Reduce the Risk of Commercial Banks? – Evidence From China's Banking Industry. *New Finance*, 2022(01): 32–41.
- [10] Yu M, Pan H, 2008, Government Intervention, Rule of Law, Financial Development and Bank Loans of State-Owned Enterprises. *Financial Research*, 2008(9): 1–22.
- [11] Yu J, Wu B, 2021, Digital Finance and Risk Taking in Commercial Banks – Based on an Empirical Study of Chinese

- Commercial Banks. *Comments Sankei Shimbun*, 12(4): 108–128. DOI: 10.14007/j.cnki.CJPL.2021.04.008.
- [12] Zhang Z, Liu Y, 2022, The Impact of Digital Finance Development on the Operational Efficiency of Rural Commercial Banks: An Empirical Study Based on Unbalanced Panel Data From 2014–2018. *Agricultural Technology Economy*, 2022(4): 67–81. DOI: 10.13246/j.cnki.JAE.2022.04.002.
- [13] Gu H, Bian Y, 2022, Will Digital Finance Affect Banks’ Systemic Risk? – Based on the Evidence of Listed Banks in China. *China Soft Science*, 2022(02): 32–43.
- [14] Liu M, Wang Q, 2022, Digital Financial Impact on Commercial Bank Risk Bearing Mechanism Study. *Journal of Accounting and Economic Studies*, 4(01): 86–104. DOI: 10.16314/j.cnki.31-2074/F.2022.01.006.
- [15] Li Y, Hu T, 2023, Has the Local Government Digital Financial Service Platform Promoted Bank Credit Allocation? *Journal of Guangdong University of Finance and Economics*, 38(2): 4–18.

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