Proceedings of the 3rd International Conference on Management Research and Economic Development
DOI: 10.54254/2754-1169/177/2025.22219

The Impact of Digital Inclusive Finance on the Development of Specialized, Sophisticated, Distinctive, and Innovative SMEs

Yawei Wang

Shandong Technology and Business University, Yantai, China
2791900653@qq.com

Abstract: In recent years, specialized, sophisticated, distinctive, and innovative (SSDI) small and medium-sized enterprises (SMEs) have attracted widespread attention from both the government and various sectors of society. However, these SMEs face financing constraints due to inherent characteristics such as small scale, low profitability, and difficulty in credit assessment, which hinder their growth. Based on the features of digital inclusive finance, this study identifies that digital inclusive finance can effectively address the financing challenges faced by SSDI SMEs by reducing information asymmetry, broadening financing channels, and expanding financial service coverage. Consequently, it enhances the efficiency of financial resource allocation and positively impacts the development of SSDI SMEs.

Keywords: Digital Inclusive Finance, Specialized, Sophisticated, Distinctive, and Innovative SMEs, Financing Constraints.

1. Introduction

In recent years, with the continuous advancement of digital technology, China has successively introduced numerous policies to encourage the development of specialized, sophisticated, distinctive, and innovative SMEs, striving to promote their transformation towards digitization and intelligentization. Since the 18th National Congress of the Communist Party of China (CPC), issues regarding SMEs and their digital transformation have become a key area of concern for the Party and the government. To better facilitate the growth of SSDI SMEs, the Chinese government has introduced various measures, including reducing operating costs, improving financing capabilities, and fostering innovative talents. For instance, tax and fee reduction policies have been enacted to alleviate the burdens on SMEs; special funds led by the central government have been established to provide financial support for SSDI SMEs; and specific action plans have been launched to encourage technological innovation among these enterprises. Nonetheless, most of the existing domestic policies are supply-oriented, lacking sufficient focus on the demand side, thereby restricting the development of SSDI SMEs.

In terms of the broader context, increasingly sophisticated digital technology and a stable domestic environment have provided SSDI SMEs with unprecedented opportunities. However, as economic openness continues to deepen, SSDI SMEs must confront various domestic and international challenges, along with greater risks. During the ongoing internationalization of the domestic market, Chinese enterprises have gradually lost their original demographic dividend advantage, presenting

DOI: 10.54254/2754-1169/177/2025.22219

significant challenges particularly for SMEs primarily engaged in low-end manufacturing. In addition to these issues, financing difficulties represent another significant constraint to the development of SSDI SMEs. Due to their smaller scale and relatively lower level of development, SSDI SMEs find it challenging to secure credit-based loans, resulting in insufficient resources and capital support. Consequently, these enterprises allocate significantly less funding for research and development (R&D), negatively impacting their high-quality growth. Currently, low investment in R&D funding is a common phenomenon among SSDI SMEs. Therefore, the present state of SSDI SMEs in China is far from optimistic, making the effective utilization of digital inclusive finance to resolve financing difficulties an urgent and pressing issue.

2. Literature Review

2.1. Research on Digital Inclusive Finance

In 2005, the United Nations introduced the concept of "inclusive finance" based on principles of equal opportunity and sustainability, aiming to provide financial services to different social classes. In 2016, the G20 Summit integrated digital technologies with inclusive finance and proposed the concept of "digital inclusive finance." By combining digital technologies such as the internet and big data, the limitations of traditional financial services are mitigated comprehensively and from multiple perspectives. Compared to traditional financial systems, digital inclusive finance demonstrates clear advantages, including broader coverage, higher financing efficiency, and lower costs. It thus provides SMEs with a better financial environment and more efficient financial services. Rooted in the core principles of inclusiveness, digital inclusive finance can alleviate the restrictions inherent in China's traditional financial system and overcome significant shortcomings associated with reliance on physical branches. It provides geographic penetration capabilities for external financing, extends the advantages of traditional finance, addresses its shortcomings, and improves the financial system by enhancing resource allocation efficiency in financial markets. Consequently, digital inclusive finance offers more efficient financial services to specialized, sophisticated, distinctive, and innovative (SSDI) SMEs and significantly contributes to their development.

2.2. Research on the Development of Specialized, Sophisticated, Distinctive, and Innovative SMEs

The development of SSDI SMEs necessitates sufficient financial resources. According to the pecking order theory, SSDI SMEs initially utilize internal financing for their production and operational activities. However, relying exclusively on internal financing is inadequate for their long-term growth; they require stable and reliable external funding sources. Nonetheless, as most SSDI SMEs are small or micro-sized enterprises, they often lack a well-established internal governance structure and exhibit low capital turnover efficiency, making it challenging for them to resist market risks. Consequently, based on the principle of risk aversion, many banks refuse to offer financing to SSDI SMEs. Furthermore, compared to larger enterprises, SSDI SMEs possess insufficient fixed assets, restricting their access to external financing due to collateral guarantee mechanisms and resulting in financing constraints. Additionally, SSDI SMEs often face challenges due to irregularities in internal financial accounting practices and inadequate regulatory systems, exacerbating their financing difficulties. Besides these internal factors, numerous external factors also restrict financing for SSDI SMEs, including the lack of a robust credit system, insufficient financial laws, an underdeveloped financial system, and high barriers in venture capital financing. To improve operational efficiency and enhance their ability to withstand market risks, SSDI SMEs must overcome financing constraints and enhance the efficiency of resource allocation.

2.3. Research on the Relationship between Digital Inclusive Finance and the Development of SSDI SMEs

Recent academic research demonstrates that the financing difficulties encountered by enterprises during their growth can be addressed effectively by leveraging digital inclusive finance. Numerous scholars have explored the relationship between digital inclusive finance and enterprise development. As digital finance continues to develop and mature, SMEs have easier access to external financing, facilitating their growth. Compared to traditional financial models, digital inclusive finance offers significantly greater advantages in financing, effectively expanding the coverage of financial services and helping SMEs reduce barriers to accessing these services. Moreover, numerous domestic and international scholars have analyzed from different perspectives how digital inclusive finance alleviates financing constraints for SMEs [1]. By employing digital technology and integrated information analysis, digital inclusive finance utilizes automated information processing systems to acquire enterprise data more comprehensively and efficiently, thereby increasing financial accessibility. This not only enhances the efficiency of capital allocation but also fosters the establishment of healthy capital ecosystems [2]. Digital inclusive finance can influence the leverage ratios and financial expenses of SMEs, further affecting their financing constraints [3]. Additional research has demonstrated that digital empowerment enables financial institutions to more efficiently obtain enterprise data and conduct deeper data mining, helping mitigate information asymmetry between enterprises and financial institutions, thereby alleviating financing constraints and promoting SME development [4]. Furthermore, digital inclusive finance positively impacts SSDI SMEs' financing by increasing transparency between capital providers and demanders, promoting financial market innovations, incentivizing financial institutions and SSDI SMEs, and improving the efficiency of capital operations. However, digital inclusive finance also involves certain risks and potential problems, such as digital technology security, funding supply issues, and platform monopolies, negatively affecting SSDI SMEs' financing capabilities [5].

3. Mechanism of Digital Inclusive Finance's Impact on Specialized, Sophisticated, Distinctive, and Innovative SMEs

3.1. Alleviating Information Asymmetry and Reducing Financing Costs

Under the influence of big data and artificial intelligence technologies, digital inclusive finance enhances the efficiency with which financial institutions collect information about specialized, sophisticated, distinctive, and innovative (SSDI) SMEs. It helps financial institutions accurately analyze the financial condition of these SMEs and assess their credit risks. The application of digital technologies mitigates information asymmetry between financial institutions and SSDI SMEs, thus reducing risk premiums and controlling the cost of financing for these SMEs. Digital inclusive finance can establish credit archives by capturing various behaviors and activities of SSDI SMEs, such as transaction records and cash flows generated across different digital platforms. SSDI SMEs can utilize these archives to improve their credit records, while financial institutions can rely on comprehensive and accurate credit data to devise suitable financial strategies. Moreover, digital inclusive finance can build credit-scoring models, enabling timely updates on credit scores for both SMEs and financial institutions. These models allow SMEs to quickly adjust their financial behaviors based on feedback, take targeted corrective actions, enhance their creditworthiness, and thus better secure financing support from financial institutions. By reducing information asymmetry, digital inclusive finance fosters trust between investors and SSDI SMEs, creating a stable financing environment conducive to the high-quality growth of SMEs.

DOI: 10.54254/2754-1169/177/2025.22219

3.2. Broadening Financing Channels for SSDI SMEs and Enhancing Financing Efficiency

SSDI SMEs typically have financing needs characterized by small amounts, high frequency, and relatively modest demand levels. Consequently, credit financing is often favored by SMEs under traditional financing models, with bank loans serving as the predominant channel, causing SMEs to overly depend on commercial banks. Under digital inclusive finance, however, SMEs have access to diverse financing channels, including online bonds, equity offerings, and peer-to-peer lending platforms. By fully leveraging big data technologies and electronic data transmission, digital inclusive finance can effectively meet the diverse financing needs of SSDI SMEs, expand the scope of financial services, and improve communication efficiency between SMEs and financial institutions. This provides SMEs with a richer variety of financial products and services. Digital inclusive finance also fosters healthy competition among commercial banks and financial institutions, continuously improving the domestic financial service ecosystem and prompting institutions to introduce higher-quality financial services. Moreover, diversified financing channels foster closer connections between SMEs and investors. Utilizing efficient fund settlement systems, digital inclusive finance improves capital allocation efficiency, thereby enhancing SMEs' financing efficiency. Furthermore, digital inclusive finance platforms accelerate loan approval processes, optimize workflow efficiency, and significantly expedite the loan application process for SSDI SMEs. Collectively, these improvements comprehensively enhance financing efficiency, thereby driving the development of SSDI SMEs.

3.3. Expanding Financial Service Coverage and Reducing Operational Risks

Digital inclusive finance, supported by big data and internet technologies, can deliver financial services to remote regions, significantly broadening the service coverage beyond the capabilities of traditional inclusive finance. Under traditional finance models, financial institutions primarily operate within urban and town centers, rarely extending their reach to remote rural or impoverished areas. Digital inclusive finance, leveraging digital and mobile payment technologies, transcends geographical limitations to deliver high-quality financial products and services directly to SSDI SMEs located in remote areas. Moreover, within traditional financial markets, enterprises with strong creditworthiness, larger scale, and high profitability tend to have easier access to loan approvals compared to SMEs with ambiguous credit ratings or insufficient collateral. Conversely, digital inclusive finance targets the general population, expanding service coverage, and striving to provide equitable financial loan services specifically to SSDI SMEs. Through this expanded coverage, digital inclusive finance supplies a broader array of financial products tailored to SMEs' varying capital needs at different developmental stages. By lowering the costs and thresholds associated with accessing financial services, digital inclusive finance enhances SMEs' convenience in obtaining formal financial services. Such developments play a crucial role in ensuring the sustainability and ongoing growth of SSDI SMEs.

4. Recommendations

Firstly, with the arrival of the digital economy and facing a rare historical opportunity, specialized, sophisticated, distinctive, and innovative (SSDI) SMEs should seize all opportunities conducive to their growth. They must strategically leverage the advantages of digital inclusive finance, tailoring development strategies based on their specific operational characteristics. By actively embracing digital transformation and intelligent technologies, these SMEs can deeply integrate digital solutions into internal management, production, and operational processes. This integration significantly enhances their core competitiveness and operational efficiency. Furthermore, it enables SSDI SMEs to improve their effectiveness in utilizing digital inclusive financial services. These SMEs should effectively apply digital inclusive financial services to ensure greater transparency in their information management. Concurrently, they should continuously optimize their internal financial management mechanisms, appropriately control information disclosure, and strengthen interactions with major financial institutions. Additionally, regarding resource allocation, SMEs should scientifically distribute capital using digital technologies, prioritizing investments in innovative projects and collaborating with academic institutions to jointly overcome research challenges and promote mutual development.

Secondly, financial institutions must focus on innovation in digital inclusive financial services, which is crucial for improving risk management capabilities. Continuous innovation in digital inclusive finance products facilitates the enhancement of financial institutions' risk assessment frameworks, thus boosting their ability to manage risks associated with SSDI SMEs. Consequently, financial institutions can make more informed financing decisions and deliver higher-quality financial services tailored specifically to the needs of SSDI SMEs.

Finally, relevant government departments should provide substantial policy support for the development of digital inclusive finance. Particularly in remote regions, it is necessary to establish targeted policies and supportive measures to ensure the effective distribution and utilization of excellent resources and technologies, promoting cross-regional circulation and balanced development. To encourage financial institutions to actively provide financing services to SSDI SMEs, local government agencies should also offer appropriate financial subsidies and tax incentives, thus fostering a positive and healthy environment for SME financing and overall growth.

5. Conclusion

Digital inclusive finance plays an essential role in promoting the development of SSDI SMEs. This is especially critical for SMEs characterized by incomplete internal governance structures, low capital turnover efficiency, and substantial external financing challenges. Through digital inclusive finance, these SMEs gain access to high-quality financial services and products, ensuring their sustainable growth. Therefore, it is imperative to accelerate improvements in digital infrastructure, expand digital network coverage, and strengthen cooperation among financial institutions at all levels, thereby constructing a robust and efficient financial market system conducive to SME development.

References

[1] Huang, Y. P., & Huang, Z. (2018). The development of digital finance in China: Present and future. China Economic Quarterly, 17(4), 1489–1502. https://doi.org/10.13821/j.cnki.ceq.2018.03.09

[2] Dong, Z. Y., & Li, C. M. (2021). Development trends and path choices for high-quality growth of “Specialized, Refined, Differentiated, and Innovative” SMEs. Reform, (10), 1–11.

[3] Ren, X. Y. (2020). Can the development of digital inclusive finance alleviate corporate financing constraints? Modern Economic Research, (10), 65–75. https://doi.org/10.13891/j.cnki.mer.2020.10.010

[4] Luo, Y., & Fang, H. Z. (2024). The impact of digital inclusive finance on innovation in “Specialized, Refine d, Differentiated, and Innovative” enterprises. Technology and Innovation Management, 45(3), 255–265. http s://doi.org/10.14090/j.cnki.jscx.2024.0303

[5] Yue, H., & Liu, T. (2021). Mechanisms, challenges, and policy recommendations for promoting financing of “Specialized, Refined, Differentiated, and Innovative” SMEs through digital inclusive finance. In Proceedings of the Conference on the New Development Pattern and New Type of Globalization (Vol. 2, pp. 410–421). School of Economics and Trade, Guangdong University of Technology. https://doi.org/10.26914/c.cnkihy.2021.066877