Original Paper

The Influence of Financial Inclusion: Evidence from Small and

Medium-sized Enterprises

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Abstract

Financial inclusion refers to providing financial support services in diverse forms to a wide range of beneficiaries, with particular attention to whether those who are disadvantaged in the financial market, such as the poor, residents in remote areas, and small and medium-sized enterprises (SMEs), can fairly access the financial products or services through formal channels. The preference of traditional financial institutions for state-owned enterprises and large corporations results in significant differences in the financial support available to different enterprises. This paper aims to analyze the impact of financial inclusion on the innovation of SMEs. We find that the financial inclusion policy enhance innovation activities of SMEs in China in various aspects. The findings lead to meaningful policy implications.

Keywords

Financial inclusion, Policy effectiveness, Small and medium-sized enterprises, Scientific and technological innovation capacity

1. Introduction

Since the reform and opening-up, small and medium-sized enterprises (SMEs) have become a dynamic and vital force in China's economic growth, creating more than 60% of the GDP, providing over 80% of urban employment, and contributing nearly 50% of tax revenue, playing an increasingly important role in China's traditional economic system. Although SMEs have an ever-growing influence in China's economy, they still face a number of constraints during their development, with the most significant being financing constraints. Under China's financial system, dominated by state-owned financial institutions, the current allocation of financial resources follows a certain priority. State-owned enterprises can easily obtain high-quality financial assets, while a large number of privately-owned SMEs cannot receive credit

support from traditional financial institutions, facing implicit financing discrimination. This financing discrimination undermines the innovation willingness and capabilities of SMEs.

Financial inclusion refers to financial institutions providing supportive financial services to all social strata and groups at relatively low costs, based on the principle of equal opportunity. Financial inclusion promotes an inclusive approach to financial services, aiming to enhance the availability of financial resources, break the existing monopoly on financial resources, and help all enterprises access sufficient supportive credit resources and services, by re-planning the flow of existing financial resources from the perspective of SMEs and lower-tier groups. The rise of financial inclusion in China provides a practical and highly meaningful pathway to address financing discrimination against SMEs and encourage their investment in innovation. In recent years, to better promote financial inclusion and foster SME development, financial inclusion-related policies have been elevated to the level of national strategy. In this regard, the Ministry of Industry and Information Technology (MIIT) has formulated relevant development plans, using higher-level policies to advance the steady development of China's small and medium financial institutions and financial inclusion system, supported by digital and internet technologies, to provide credit support to SMEs. The recent development and application of digital technology and internet technology have accelerated the construction of financial inclusion in China, extending the breadth and depth of financial inclusion services, promoting the stable development of financial inclusion outside the traditional financial system, and incentivizing SMEs to continuously enhance their innovation capabilities.

It has been about a decade since the China government has vigorously promoted the development of financial inclusion. This paper aims to explore the effectiveness of China's financial inclusion policies from the following two aspects: First, by examining the innovation capabilities of enterprises, it seeks to investigate whether China's financial inclusion policies have been effectively implemented, whether they have genuinely optimized the allocation structure of traditional financial resources, and whether they have injected vitality into technological innovation in SMEs. Second, state-owned enterprises are favored by traditional financial institutions and enjoy credit preferences in actual financing. Therefore, the impact of the current promotion of financial inclusion policies on the innovation of SMEs may vary significantly depending on the ownership of the enterprise. This paper aims to test whether the promotion of financial inclusion produces different effects for enterprises of different ownership types, thereby providing a reasonable basis for refining and further advancing financial inclusion policies.

2. Literature Review

Enterprise technological innovation is an investment in high-risk, high-return projects, and its expected returns are difficult to reasonably assess (Yuan & Wang, 2002). Investment in technological innovation faces severe information asymmetry, potentially causing innovative companies to face financing discrimination and credit rationing issues (Huang & Zhang, 2014). The difficulty of obtaining financing constrains many SMEs due to liquidity limitations, preventing them from effectively carrying out

technological innovation (Zhou, Fu, & Zhong, 2014). In today's market, increasing market share through cost competition and resource competition has become an outdated business approach; establishing proprietary technological advantages and unique innovation capabilities is key to a company's success (Huang, 2002). Therefore, it is evident that financing difficulties affect a company's innovation capability, which in turn can harm its vitality and development potential. China needs to break the monopoly of major state-owned financial institutions in the financial resources sector, broaden SME financing channels, and inject high-quality credit resources into SME development. This policy orientation will guide SMEs, encouraging them to increase the proportion of investment in innovation, helping them to fully explore their potential and pursue sustainable development. In order to achieve this goal, the rapid development of financial inclusion in recent years deserves particular attention.

From the perspective of service targets, financial inclusion mainly involves providing financial products and services to SMEs, micro-enterprises, and lower- and middle-income populations. Considering costs and risks, traditional financial institutions are often unwilling to provide credit allocation and services to these groups (Corrado & Corrado, 2017). Since financial inclusion does not focus on the credit needs of large enterprises, state-owned enterprises, or wealthy individuals, but aims to incorporate small and micro enterprises and lower- and middle-income populations who are excluded from traditional financial services into the formal financial system (He & Miao, 2015), financial inclusion places greater emphasis on "customized services," that is, providing low-cost and affordable financial resources and services based on the actual needs of small clients. This not only requires stable development of financial inclusion policies but also demands that inclusive financial technologies gradually develop toward low cost, high efficiency, and high security (Lu, Ma, & Wang, 2019). The development issues of financial inclusion are multi-layered social problems, involving various social sectors in the development process, including the government, institutions responsible for implementing financial inclusion policies, and groups benefiting from financial inclusion policies (Johnson, 2013). Implementing financial inclusion policies without considering inclusive financial institutions and beneficiaries—i.e., without considering the effectiveness of financial inclusion policies—is a waste of national financial resources (Xu & Zhang, 2017).

Previous empirical studies on financial inclusion often investigate the topic from the perspective of financing, focusing on how financial inclusion broadens financing channels and analyzing the relationship between financial inclusion and the healthy development of SMEs (Xing & Wang, 2013), as well as examining what kinds of conveniences SMEs can obtain from financial inclusion from a financing perspective. In recent research, scholars have begun to pay attention to innovation as a high-risk, high-reward activity for enterprises, which is highly suitable as an entry point to study the effectiveness of financial inclusion policies (Sun, Hu, & Yang, 2020). Based on the above studies, this paper innovatively includes the differences in the development foundation of financial inclusion across regions in the research scope, and, from the perspective of enterprises' innovation capabilities, further explores the effectiveness of financial inclusion policies since their implementation in China.

3. Hypothesis Development

"Financial inclusion" was first proposed in 2005 at the International Microcredit Annual Conference. After gradual development, it has been widely recognized by the world as a reasonable approach to eliminate discrimination in financial asset allocation and lower the threshold for financial services. Since the theory of financial inclusion was introduced to China, it has received high attention from financial policy-related departments. In November 2013, the "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform" officially proposed that China should develop financial inclusion as an important direction for financial development, making it a part of the national strategic guidelines. At the same time, financial institutions are encouraged to apply innovative thinking within the existing financial market system, design new financial products, increase product variety, and explore the breadth and depth of the financial market. China has the determination to develop financial inclusion and, in 2013, implemented many policies promoting its growth. Therefore, how to reasonably evaluate the effectiveness of financial inclusion policies is the main goal of this paper.

3.1 Inclusive Financial Policies Promote Innovation in SMEs

The innovative development of financial inclusion in China cannot be separated from the support of digital and internet technologies. Technological innovation has significantly reduced the high costs incurred by financial institutions during operations, expanded the reach of financial services, and improved the cost-effectiveness of these services. By collecting and processing important information, it is possible to effectively alleviate information asymmetry, enhance risk identification capabilities, and manage credit risk, thereby reducing market transaction costs and improving transaction efficiency. On this basis, the policy of financial inclusion can be explained from three perspectives regarding how it addresses financing discrimination faced by SMEs during the loan application process: expanding corporate financing channels, lowering credit financing costs, and improving credit financing efficiency. First, financial inclusion broadens financing channels. SMEs are often constrained by their small scale of operations, insufficient collateral, and unstable income and expenditure, which frequently leads to financial exclusion when applying for loans. Large financial institutions in our country prefer to allocate financial assets to large enterprises with good credit and ample collateral in exchange for stable interest income. The development of financial inclusion can break the limitations of traditional financial products and services, delivering targeted financial assets and services to SMEs at lower costs, thereby expanding the breadth and depth of financial services. New financing platforms, multi-level microcredit tools, and diversified financial services can help SMEs easily find financing channels suitable for them, significantly reducing the barriers to financing. SMEs that are freed from financing constraints can invest more effectively in technological innovation.

Second, financial inclusion reduces financing costs. Traditional financial institutions lack sufficient trust in SMEs. When receiving loan applications from SMEs, they often conduct extensive auditing to avoid potential risks and impose strict requirements on the subsequent use and supervision of the loans. To

compensate for possible loss risks and the costs of preliminary audits, SMEs, even if they receive loan support, inevitably have to bear higher interest costs compared to state-owned or large enterprises. Additionally, branch network services, which are the primary service method of traditional financial institutions, require certain construction and labor costs, further increasing expenses. In contrast, financial inclusion, relying on digital and internet finance, reduces the need for physical branches, reducing these costs. SMEs can apply for loans and financial services online, providing their financial data as required by financial institutions for review and loan issuance, which optimizes the financing process. According to data released by Ant Financial, the cost of financial services supported by cloud computing and the internet is only one-tenth of the original cost. The application of digital and internet technologies in financial services can lower additional expenses, simplify processes, and provide SMEs with comprehensive and low-cost financial services. Meanwhile, the unique advantages of digital and internet technologies help financial institutions capture and process corporate information, optimizing the information screening process. With increased reliability of SME information, information asymmetry can be effectively reduced, eliminating financing discrimination by financial institutions against SMEs and promoting enterprise technological innovation.

Third, financial inclusion improves financial efficiency. Compared to traditional financial systems, financial inclusion can more efficiently leverage mobile internet and digital technologies to quickly, accurately, and effectively break down and collect customer credit information. Internet-based credit information systems simplify the credit review process, reducing the costs of assessment, review, and risk management. The improvement in financial efficiency allows SMEs not to worry about liquidity risks caused by significant funds being tied up in technological innovation, further encouraging SMEs to engage in technological innovation activities.

Thus, we propose first hypothesis: The implementation of financial inclusion policies helps alleviate financing constraints for SMEs, thereby promoting their technological innovation activities.

3.2 The Financial Inclusion Policy Has Different Impacts on Enterprises with Different Ownership Types China's unique institutional background and financial market environment make government play an important role in the allocation of financial resources. Financial inclusion has different effects on the innovation incentives of SMEs under different ownership types. Under the traditional financial market system, for SMEs to obtain financial resources and services from state-owned financial institutions, they not only need to provide qualified financial information but also need to evaluate the nature of the actual controllers of the enterprise and whether the enterprise has certain political connections. Since state-owned enterprises have complex political connections, they do not encounter severe 'ownership discrimination' in the financing process like private SMEs, and they are more likely to receive financial resource allocation. Therefore, for SMEs with different ownership types, the promotion of inclusive financial policies has significant differences in easing financing constraints. Specifically, two perspectives can explain the reasons for this difference.

First, the degree of information asymmetry varies among SMEs with different ownership structures. Traditional financial institutions can maintain long-term good cooperation with state-owned SMEs through government policies or social construction projects. Therefore, financial institutions have trust in state-owned SMEs and have a considerable understanding of their financial data and operating conditions, providing a foundation for financing activities. However, traditional financial institutions lack commercial connections with private enterprises, resulting in weak business relationships. At the same time, compared to state-owned enterprises, private SMEs have less transparent financial information, and due to their scale, their financial compliance is relatively low, making the reliability of their information comparatively weak. The weak bank-enterprise relationship makes it difficult for financial institutions to rely on experience to decide whether to provide financial resources to private SMEs, leading to serious information asymmetry. Promoting financial inclusion can efficiently and quickly collect and review customer credit data, effectively reducing information asymmetry between financial institutions and SMEs, and increasing the willingness of financial institutions to provide services. This progress is not particularly beneficial for state-owned SMEs; therefore, the advancement of financial inclusion policies mainly benefits private SMEs in addressing information asymmetry.

Second, SMEs with different ownership types have varying demands for and efficiency in utilizing financial inclusion policies. State-owned SMEs, possessing state-owned capital and certain political backgrounds, often maintain good long-term cooperative relationships with the dominant state-owned financial institutions in China. This means that state-owned SMEs are generally not subject to stringent financing constraints even before the implementation of financial inclusion policies in China, resulting in a lower demand for such policies. At the same time, the systems of state-owned enterprises are mostly inflexible, and their financing processes are closely monitored. Therefore, the amount of funds involved in each financing transaction is relatively large, which does not align with the 'small, fast, and flexible' financing approach promoted by financial inclusion, naturally affecting the importance that state-owned SMEs place on financial inclusion. In contrast, private SMEs, which often lack collateral and a foundation for cooperation with traditional financial institutions, frequently face liquidity shortages due to financing difficulties before the promotion of financial inclusion policies, leading to a greater demand for these policies. Moreover, the 'small, fast, and flexible' financing approach advocated by financial inclusion perfectly suits the operating style of private SMEs, who require short-term, low-cost, flexible loans. Therefore, the promotion of financial inclusion policies effectively meets the financing needs of private SMEs, aligns with their operating methods, and can have a greater impact on their technological innovation capabilities.

In summary, we propose the second hypothesis: the implementation of inclusive financial policies is more conducive to alleviating the financing constraints of private SMEs, thereby promoting their engagement in technological innovation activities.

4. Research Design

4.1 Sample Selection and Data Sources

This paper uses small and medium-sized board-listed companies from 2011 to 2019 as the research sample, excluding financial companies and those with non-referential or missing major data. Based on this, variables are winsorized at the 1% and 99% quantiles, resulting in 6,318 observations. The data are all sourced from the Wind database, BETANet, and the official website of the China Banking Regulatory Commission.

4.2 Variable Description

4.2.1 Dependent Variable

The variable to measure a company's innovation capability is the number of patent applications each year, *Apply*. According to the relevant provisions of the Patent Law of the People's Republic of China, patents can be divided into three types: invention patents, utility model patents, and design patents. Based on the provisions of the Patent Law, this study further breaks down the number of patent applications, defining the annual numbers of the three types of patent applications as *Iapply*, *Uapply*, and *Dapply*, respectively. 4.2.2 Explanatory Variable

The "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform", released in 2013, was the first time that the comprehensive development of financial inclusion was proposed in an important policy guidance setting in China. This paper chooses 2014 as the time when financial inclusion policies began to affect China's traditional financial system. *Time* is a dummy variable that measures the timing of the policy implementation.

The advancement of financial inclusion policies is influenced by the construction of local basic financial service facilities, and the intensity of the impact of financial inclusion policies varies significantly across different regions in China. According to the Provincial Regional Financial Operation Report of 2013, the Financial Consumer Rights Protection Bureau of the People's Bank of China calculated the financial inclusion index. The results show that 12.9% of provinces fall into the high financial inclusion category, 38.7% into the medium financial inclusion category, and 48.4% into the low financial inclusion category. To eliminate the effect of differences in the intensity of financial inclusion policy impacts across provinces on the measurement of policy effectiveness, this study uses the number of bank branches in each province before 2014 as a measure of the province's foundational financial level before the development of financial inclusion and construct the *Basic* variable. The interaction term *Time* × *Basic* is the core explanatory variable, which is the focus of the model.

4.3 Model Construction

We include firm financial and and governance characteristics as control variables to eliminate their impact on corporate innovation, including return on equity (ROE), debt ratio (Debt), revenue growth rate (Increase), price-to-book ratio (PB), and the shareholding ratio of the top ten shareholders (Share).

To examine the impact of financial inclusion policy shocks on enterprise innovation, the baseline model is constructed as follows:

$$Apply_{it} = \alpha + \gamma Time_t \times Basic_i + \lambda X_{it} + IN + \varepsilon_{it}$$

Among them, the number of three types of patent applications in the empirical analysis are Iapply, Uapply, and Dapply, respectively, and regressions are conducted on these as well as the total number of applications, Apply. The control variables X_{it} are financial variables and corporate governance variables that may affect firm innovation, and the specific variable explanations have been provided above. To avoid the impact of policy shocks affecting SMEs differently across industries, which could influence the results, this study controls for industry fixed effects in all regressions, where IN represents industry fixed effects.

5. Empirical Results

5.1 Descriptive Statistics

Table 1 presents the descriptive statistics of the main explanatory variables and control variables used in this study. As shown in the table, each variable has 6,318 observations. Since extreme values have been removed through winsorization to mitigate their impact on the statistical results, the descriptive statistics of each variable do not show any anomalies.

Table 1. Summary Statistics

Var	Obs	Mean	Median	Std.dev	Min	Max
Apply	6318	4.749	1	13.16	0	99
Dapply	6318	4.444	0	15.71	0	120
Iapply	6318	12.71	3	32.63	0	248
Uapply	6318	13.37	3	30.88	0	222
ROE	6318	7.162	7.351	19.13	-117	133.1
Share	6318	60.93	62.38	13.89	18.84	95.99
PB	6318	3.974	3.028	14.88	-7.500	1164
Increase	6318	17.89	11.97	83.56	-91.33	554
Debtr (%)	6318	37.12	35.67	18.71	0.752	104.4

5.2 Baseline Results

Table 2 presents the baseline results. In columns (1) to (3), the coefficient of $Time \times Basic$ is positive and statistically significant at various levels. The significance of the core explanatory variable coefficients is well demonstrated. This indicates that the development of financial inclusion can significantly promote technological innovation in SMEs, and this promotion is comprehensive, showing a clear positive effect

on all three types of innovation examined. Furthermore, the results for control variables are relatively stable and significant in multiple regressions. The overall fitting of the explanatory and control variables performs well, being significantly positive at the 1%, 1%, 10%, and 1% levels, respectively, confirming that the selection of explanatory and control variables is reasonable and can serve as a reference for studying the effectiveness of policies.

In summary, the implementation of financial inclusion policies helps alleviate the financing constraints of SMEs, thereby promoting their technological innovation activities.

Table 2. Baseline Results

	(1)	(2)	(3)	(4)
	Apply	Dapply	Iapply	Uapply
Time × Basic	1.341**	0.316***	0.519*	0.506**
	(0.531)	(0.107)	(0.309)	(0.248)
Time	19.786**	2.249	7.357	10.180**
	(8.989)	(1.480)	(5.704)	(4.029)
Basic	-0.519	-0.111	-0.168	-0.240
	(0.434)	(0.073)	(0.266)	(0.209)
ROE	0.489^{*}	0.073	0.189^{*}	0.227^{*}
	(0.282)	(0.045)	(0.111)	(0.130)
Share	0.212	0.123***	-0.010	0.099
	(0.137)	(0.028)	(0.048)	(0.086)
PB	0.053	0.014	0.014	0.025
	(0.057)	(0.013)	(0.022)	(0.027)
Increase	-0.021***	-0.003**	-0.009***	-0.008**
	(0.007)	(0.002)	(0.003)	(0.003)
Debtr	0.587***	0.059***	0.229***	0.299***
	(0.079)	(0.016)	(0.039)	(0.041)
_cons	-48.588***	-7.881***	-13.028*	-27.680***
	(14.011)	(2.826)	(7.233)	(7.626)
N	6318	6318	6318	6318
\mathbb{R}^2	0.278	0.179	0.248	0.240
Industry	Yes	Yes	Yes	Yes

 $^{^{***,\, ***,\,}}$ and * indicate statistic significance at 1%, 5%, and 10% level, respectively.

5.3 Heterogeneity: Ownership

According to the actual owners of SMEs, they are divided into private SMEs and state-owned SMEs. Among them, the observations for private SMEs is 4,518 and 1,800 for state-owned SMEs. Regression analyses were conducted separately for the two groups. Table 3 presents the results for the private SMEs group, and Table 4 presents the results for the state-owned SMEs group. From the results of the private SMEs group, we can see that the coefficient of $Time \times Basic$ in columns (2) to (4) is positive and statistically significant at the 1%, 5%, 5% level, respectively. This indicates that financial inclusion policies have a significant promoting effect on all three types of innovation in private SMEs. From the results of the state-owned SMEs group, we can see that only the coefficient of *Time* × *Basic* in column (2) is significantly positive at the 10% level, while the other core explanatory variables are insignificant. This indicates that the development of financial inclusion has a certain promoting effect on invention patent innovation in state-owned SMEs, but does not have a significant promoting effect on utility model patents or design patents. From the above comparison, it is evident that the impact of financial inclusion policy shocks on the two types of enterprises is different. Compared with state-owned SMEs, private SMEs receive a greater positive impact from financial inclusion policies. The results for the control variables in both groups are relatively stable and significant across multiple regressions. The overall fitting of the explanatory and control variables performs well, indicating that the explanatory and control variables were reasonably selected and can serve as a reference for studying the effectiveness of policies. In conclusion, the implementation of inclusive financial policies is more conducive to alleviating the financing constraints of private SMEs, thereby promoting their technological innovation activities.

Table 3. Private SMEs

	(1)	(2)	(3)	(4)
	Apply	Dapply	Iapply	Uapply
Time × Basic	0.002	0.442***	0.837**	1.025**
	(0.227)	(0.156)	(0.411)	(0.433)
Time	4.628**	0.812	2.309	3.787
	(2.253)	(1.788)	(7.092)	(4.730)
Basic	0.232	0.257***	0.028	0.904***
	(0.185)	(0.085)	(0.263)	(0.267)
ROE	0.037**	0.039	0.120**	0.171^{*}
	(0.015)	(0.028)	(0.054)	(0.099)
Share	0.112**	0.145***	0.252^{*}	0.201**
	(0.053)	(0.026)	(0.130)	(0.096)
PB	-0.323	0.067	-0.744	-0.212
	(0.210)	(0.155)	(0.541)	(0.300)

Increase	-0.004	-0.005*	-0.012	-0.011
	(0.003)	(0.003)	(0.008)	(0.007)
Debtr	0.217***	0.071***	0.613***	0.484***
	(0.053)	(0.019)	(0.139)	(0.063)
_cons	-10.868**	-11.217***	-26.793**	-28.886***
	(4.931)	(2.306)	(10.886)	(8.330)
N	4518	4518	4518	4518
\mathbb{R}^2	0.013	0.020	0.014	0.033
Industry	Yes	Yes	Yes	Yes

 $^{^{***,\, ***,\,}}$ and * indicate statistic significance at 1%, 5%, and 10% level, respectively.

Table 4. State-owned SMEs

	(1)	(2)	(3)	(4)
	Apply	Dapply	Iapply	Uapply
Time × Basic	0.120	0.253*	0.579	0.592
	(0.265)	(0.147)	(0.419)	(0.477)
Time	-5.625	6.647**	14.449**	25.681**
	(3.429)	(3.334)	(6.935)	(10.898)
Basic	0.031	0.199**	0.014	0.370^{*}
	(0.237)	(0.087)	(0.297)	(0.224)
Roe	0.219***	0.448***	0.802***	1.080^{**}
	(0.059)	(0.138)	(0.226)	(0.426)
Share	0.036	0.270***	0.131	0.795**
	(0.032)	(0.084)	(0.114)	(0.374)
PB	0.045***	0.084***	0.145***	0.179**
	(0.012)	(0.027)	(0.046)	(0.081)
Increase	0.005	-0.016*	0.012	-0.020
	(0.011)	(0.009)	(0.025)	(0.033)
Debtr	-0.026	-0.009	-0.014	0.156**
	(0.020)	(0.018)	(0.050)	(0.063)
_cons	3.396	-21.407***	-6.127	-63.480**
	(3.530)	(6.950)	(10.353)	(29.995)
N	1800	1800	1800	1800
\mathbb{R}^2	0.028	0.058	0.034	0.035
Industry	Yes	Yes	Yes	Yes

^{***, **,} and * indicate statistic significance at 1%, 5%, and 10% level, respectively.

6. Conclusion and Discussion

This paper uses data from SMEs listed on the SME board in China from 2011 to 2019 as the sample, focusing on the innovation capability of SMEs to investigate whether the financial inclusion policies that have been vigorously promoted in China since 2013 have been effectively implemented, whether they have genuinely helped SMEs solve financing difficulties, and whether they have encouraged SMEs to engage in technological innovation. Beyond this baseline results, the paper divides SMEs based on the nature of their actual controllers into private SMEs and state-owned SMEs, in order to explore the differences in the impact of financial inclusion policies on SMEs with different ownership structures. By using a difference-in-differences model to test these issues, we draw the following conclusions: Firstly, the financial inclusion policies promoted in China since 2013 have significantly enhanced the innovation capability of SMEs, having a notable positive effect on three types of patents for SMEs: invention patents, utility model patents, and design patents. Secondly, state-owned SMEs already had more reliable financing channels before the development of financial inclusion, so the promotion of financial inclusion policies did not significantly increase the innovation capability of state-owned SMEs. For private SMEs, the promotion of financial inclusion policies has significantly helped them solve financing difficulties, effectively enhancing their willingness and ability to innovate, providing a solid institutional guarantee for the sustainable and rapid development of private SMEs.

Based on the above findings, we believe that the current financial inclusion policies are effective. At the same time, based on existing financial inclusion policies, China should formulate a more comprehensive development plan for financial inclusion from the top down, determine development steps and paths, and clarify the role of digital and internet technologies in the development of financial inclusion. When formulating mid-term plans, reference can be made to financial inclusion evaluation indicators, and differentiated financial inclusion policies can be established according to the level of basic financial infrastructure construction in different regions, incentivizing SMEs in each region to adopt and benefit from the financial inclusion system. Meanwhile, since state-owned enterprises and private enterprises differ significantly in their demand for and efficiency in using financial inclusion resources, it is recommended that the needs of private enterprises be given more consideration when formulating financial inclusion resource allocation policies, favoring private enterprises in terms of resource allocation sequence and preferential measures, to maximize the innovative incentivizing effect of financial inclusion for private enterprises. Finally, the two major foundations of financial inclusion digital technology and internet technology—are highly innovative and in a stage of rapid development, while the supporting legal and supervisory systems are still not well established. Moreover, financial inclusion itself has developed for only a short period in China, and corresponding legal and supervisory systems need improvement. As the importance of financial inclusion becomes increasingly apparent, it is crucial to restrict the risks of financial inclusion technology at a low level through practical and comprehensive legal and supervisory systems, thereby maintaining public confidence in financial inclusion.

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