

A Study on the Impact of Sci-Tech Finance Policies on the Value Added of Urban Accommodation and Catering Industries

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Abstract. The hotel and restaurant sector plays a crucial role. This sector has helped to stimulate consumption, create jobs and improve people's standard of living. However, over many years, the sector has faced three major challenges: a lack of assets, a lack of collateral and difficulty in accessing finance. Fintech policies bridge the digital economy and financial services, offering new ways to address these issues. This study uses data from 276 Chinese cities covering the period from 2009 to 2023. We analyse a pilot programme known as the 'Pilot Programme for Promoting the Integration of Science, Technology and the Financial Sector'. In this study, we treat this programme as a natural experiment. Using a multi-period difference-in-differences model, we examine the impact of fintech policies on the value added of the accommodation and food services sector. The results are as follows: first, fintech policies lead to a significant increase in the value added of this sector. After controlling for fixed effects related to cities and years, the net policy effect is 0.282. This result is statistically significant at the 1% level. This result has been confirmed by numerous robustness tests. Second, these policies serve to ease the constraints on financing for small and micro-enterprises. With easier access to finance, these firms can expand their operations, upgrade their equipment and move forward with digital transformation. This, in turn, increases the value added of this sector. Thirdly, the effects of the policies are not uniform across all cities. The more developed a city's tourism industry is, the more pronounced the effects are. The impacts are also more evident in cities with advanced digital infrastructure. This study illustrates how fintech policies support the lifestyle services sector. It provides concrete evidence and practical guidance, contributing to the deepening of fintech reforms, as well as promoting high-quality development in the accommodation and restaurant sectors.

Keywords: Fintech policies; Hospitality and food service industry; Financing constraints.

1. Introduction

Food is a basic human necessity. When travelling, people also require accommodation. The hotel and catering industry plays a vital role in the economy. It helps to stimulate consumption, create employment opportunities and improve people's lives. In 2023, the sector's national value added exceeded 2.1 trillion yuan, accounting for approximately 1.8% of China's gross domestic product (GDP). The sector employs over 25 million people. Small and medium-sized enterprises (SMEs) and sole traders account for more than 95% of the sector's total. It is a typically labour-intensive industry. Its development fully reflects the vitality of local consumption and the nature of the service economy. However, a long-standing issue persists. The sector faces three major structural challenges: a shortage of assets, a lack of collateral and difficulties in accessing finance (López-González et al., 2025) [1]. According to survey data from the China Association of Small and Medium Enterprises, over 60% of accommodation and catering enterprises have been denied bank loans due to a lack of qualified collateral. The industry's average cash flow fluctuation reaches 35%. Coupled with the fact that traditional credit approval relies on offline due diligence and collateral appraisal (Xiong et al., 2025) [2], this has led to low lending willingness among financial institutions, making financing constraints the primary bottleneck hindering the industry's scale expansion and quality upgrading.

In recent years, with the in-depth advancement of national strategies such as "Digital China" and "Digital Inclusive Finance," fintech policies—as institutional vehicles for the deep integration of the digital economy and financial services—have received high priority from governments at all levels (Feng & Zhang, 2023) [3]. In December 2010, five ministries, including the Ministry of Science and

Technology, jointly issued the “Implementation Plan for Pilot Programs to Promote the Integration of Science, Technology, and Finance,” officially launching the pilot initiative. This policy aims to guide financial institutions in innovating credit products and service models to provide differentiated financing support for asset-light enterprises (Xiong et al., 2025) [2]. In 2025, the National Financial Regulatory Administration and other departments successively issued implementation plans for inclusive finance and digital finance. The former requires optimizing credit approval processes and reducing reliance on collateral, while the latter mandates the digital transformation of financial institutions, with the dual goal of enhancing financial service capabilities for small and micro enterprises (Ding & Peng, 2022) [4]. For the accommodation and food services sector, fintech policies can help. They reduce information asymmetry (Zhao Jiaqi et al., 2023) [5]. They also broaden financing channels (Liu & He, 2023) [6]. This raises an important question: does this fintech policy really contribute to the growth of the city's food and lodging services sector? And if so, to what extent? What are the trends? And what factors are driving them?

Many studies have looked at financial development and service sector growth. They come from different angles. Fintech development helps companies innovate and work better. How? It eases financing constraints. It reduces information asymmetry. It broadens financing channels (Ding & Peng, 2022; Liu & He, 2023; Bao et al., 2024; Yang & Wang, 2022) [4,6,7-8]. Fintech also creates a loop in the service industry's innovation ecosystem. The loop goes like this: find what people need, match services, pull resources together, then create together (Kitsios, 2023) [9]. Fintech policies push companies to spend more on R&D (Li et al., 2024) [10]. Entrepreneurial finance also helps the innovation ecosystem (Cumming & Groh, 2018) [11]. Digital finance goes even further. It reaches into service sector growth and consumer spending. Digital inclusive finance lowers payment barriers. It makes the consumption environment better. That significantly boosts household spending. The pull is especially strong for households with few assets, low income, or living in less developed regions. Digital payments and consumer credit stimulate immediate consumption by reducing transaction friction and facilitating intertemporal smoothing (Li et al., 2024; Ma & Ouyang, 2023; Zhang Xun et al., 2019; Huang Yiping & Huang Zhuo, 2018) [10,12-15]. In the tourism sector, the coverage and depth of digital inclusive finance exhibit significant bidirectional spatial spillovers (Li et al., 2024) [10]. However, while digital inclusive finance promotes the overall development of the nighttime economy, it exerts a short-term negative impact on the industry's value added by suppressing entrepreneurial activity in the accommodation and food services sector (Chen et al., 2024) [16]; at the same time, the positive effect of digital transformation on investment by accommodation and tourism enterprises is more pronounced among firms with alleviated financing constraints (Hu et al., 2026) [17]. Furthermore, the role of digital finance in narrowing the urban-rural consumption gap and promoting industrial structure upgrading (Zhang Xun et al., 2019) provides a macro perspective for understanding the regional heterogeneity of service sector growth [14].

However, current research on the impact of fintech policies on the value added of the accommodation and food services sector still has certain limitations. First, the theoretical framework remains incomplete, and there is a lack of systematic explanation of policy effects. Second, existing studies mostly focus on the macro effects of fintech or single financing channels, with relatively insufficient comprehensive examination of multiple transmission channels through which policies operate, such as alleviating financing constraints and stimulating consumer demand.

In summary, the marginal contributions of this study are as follows: First, by employing a multi-period difference-in-differences model and treating fintech pilot policies as an exogenous shock, we systematically assess their causal effects on the value added of urban accommodation and food services, while comprehensively applying various robustness methods to ensure the reliability of our conclusions. Second, by selecting financing constraints as the core mediating variable, we empirically test the transmission mechanism of “technology-driven financial policies → alleviation of financing constraints → increase in industry value added,” thereby supplementing existing research with a mechanistic explanation. Finally, we conduct a heterogeneity analysis based on two dimensions—the level of urban tourism development and the level of digital infrastructure—to reveal the differentiated

performance of policy effects across various scenarios, providing an effective reference for the formulation of differentiated policies.

2. Theoretical Analysis and Research Hypotheses

According to financial development theory and transaction cost theory, the essence of fintech policies lies in using technological means to reduce information asymmetry and transaction costs in financial services, thereby improving the financing environment and operational efficiency of the real economy (Xie & Zou, 2012) [18]. The implementation of fintech policies can drive an increase in the industry's value added through two direct pathways: the supply side and the demand side. On the supply side, fintech policies use several tools. Big data credit scoring. Supply chain finance. Online loans without collateral. These tools reduce banks' need for collateral. That makes it easier for businesses to get credit. With a steady flow of money, companies can open more stores. Companies can modernize their facilities and move toward digitalization. In this way, they can expand the scope of their operations and improve the services they provide to customers. This directly contributes to the increased value added in the sector (Huang & Huang, 2018; Tang et al., 2020). [15,19]. On the demand side, there are also some other operational mechanisms. Mobile payments. Online bookings. Installment plans. These reduce the obstacles to payment. They lessen the difficulty of transactions. They facilitate consumers' lives. One large payment is stretched out over several months with consumer credit. This motivates consumers to spend money on items like dining out or lodging (Zhang et al., 2019) [14]. Thus, overall market demand rises. Business income and industry value added increase as a result. Fintech regulations also benefit from increased operational effectiveness. They enhance the settling of payments. They lower the expenses associated with cash management. According to Guo et al. (2020), they accelerate capital turnover [20]. All this indirectly boosts business performance (Li, 2015) [21]. To sum up, fintech policies work on three fronts. They help supply capital. They stimulate consumption. They raise efficiency. Together, they drive growth in the value added of the accommodation and food services industry. Based on this, the paper puts forward the following hypothesis:

H1: Fintech policies have a significant positive impact on the value added of the urban accommodation and food service industries.

Financing constraints are a big problem for small, medium, and micro businesses in accommodation and food services. Why? Two main reasons. One is information asymmetry. The other is not enough collateral (Ding & Peng, 2022; Khan & Ahmad, 2025) [4,22]. Banks find it hard to know the real situation of small businesses. Traditional credit models rely too much on fixed assets like buildings or land. However, businesses in the hospitality and restaurant industry generally have limited capital. Their cash flows are highly volatile. As a result, banks impose restrictions on lending and do not provide sufficient financing. Pilot projects in the fintech sector can address this issue. They alleviate financing challenges in three ways: through information, structure, and risk management. First, information. Within these systems, credit systems based on big data collect information from various sources. Tax data. Social security contributions. Utility bills. Transactions on food delivery platforms. All of this transforms daily business activities into clear credit signals. This reduces the information asymmetry between banks and businesses. As a result, even businesses without collateral can obtain unsecured loans (Zhao et al., 2023). [5]. Second, structure. In pilot regions, technology-focused bank branches and specialized inclusive financial institutions are being established. They offer products such as online loans and loans based on transaction-generated cash flows. They apply different credit-granting principles. Instead of requiring collateral, they analyze cash flows from operational activities and the results of online transactions. Growth potential. This provides direct access to increased financing for businesses in the hospitality and restaurant sector (Li and Yin, 2024) [23]. Third, risk management. This policy includes a risk compensation fund. There is also a technology-based credit risk-sharing mechanism. Together, they form a public risk-sharing system. When banks extend loans to small businesses in the hospitality and restaurant sector, the government

commits to covering a portion of the losses in the event of default. This changes how banks assess risks and profitability. Additionally, mobile payment methods and online payment tools are widely used. Banks can track businesses' cash flows in real time. This reduces administrative costs and post-lending risks (Xu & Liu, 2023) [24].

Financial difficulties are alleviated. A stable cash flow thus helps businesses in the hospitality and restaurant sector. They can thrive. They can better serve their customers (Ding et al., 2022; Khan & Ahmad, 2025) [25,22]. Business owners take out loans and use them. They open new branches. They renovate existing premises. They install smart reservation systems. They drive traffic to delivery platforms. All of this helps expand the scale of their operations. Revenue increases. Service efficiency improves. In the end, the industry's value added grows. Capital providers keep watching business cash flows. That creates outside oversight. Businesses then clean up their financial management. They cut unnecessary spending. They make sure money goes exactly to business projects that can sell in the market. Based on the above analysis, this paper proposes the following hypothesis:

H2: Fintech policies, by alleviating the financing constraints of small and medium-sized enterprises, thereby drive an increase in the value added of the urban accommodation and catering industry.

3. Research Design

3.1. Variable Selection and Measurement Methods

3.1.1. Dependent Variable: Value Added in the Accommodation and Food Services Industry (ACI)

This study examines the impact of technology-driven financial policies on the development of China's accommodation and food services industry. Based on statistical data released by the National Bureau of Statistics of China, this study sets the value added of the accommodation and food services industry in each autonomous region and municipality as the core dependent variable to investigate the specific effects of technology-driven financial policies on this sector.

3.1.2. Core Independent Variable: Sci-Tech Finance Policies (DID)

In this study, science and technology finance policies (DID) are treated as dummy variables to identify the causal effects of policy interventions. Specifically, the model is defined as follows: $DID = Treat * Post$, where *Treat* indicates whether the city in which the firm is located is a policy implementation city (1 if yes, 0 if no), is used to distinguish the treatment group from the control group; *Post* is a dummy variable for the policy implementation year, taking the value 1 in the year of implementation and subsequent years, and 0 in preceding years. For firm *i*, if the city in which it is located begins implementing the policy in year *t*, then DID is set to 1 in year *t* and subsequent years; otherwise, it is set to 0.

3.1.3. Control Variables

To mitigate endogeneity issues caused by omitted variables, this study selects control variables that reflect regional socioeconomic characteristics, specifically including: Population Size (POP): the natural logarithm of the permanent resident population; Economic Density (ED): the natural logarithm of the ratio of regional gross domestic product to the area of the administrative region; Economic Development Level (GDP): the natural logarithm of per capita regional GDP; Level of Openness to the Outside World (OPEN): measured as the ratio of total net exports to regional GDP; Population Mobility Rate (MOB): Calculated as the difference between the permanent resident population and the registered population, divided by the registered population; Level of Education Expenditure (EDU): Expressed as the proportion of education expenditure in general public budget expenditure; Level of Science and Technology Expenditure (TECH): Measured as the proportion of science and technology expenditure in general public budget expenditure; Urbanization rate (URB): expressed as the proportion of the urban population to the permanent resident population; The above

variables characterize regional features from dimensions such as population agglomeration, economic scale, openness, industrial transformation, human capital, public services, and fiscal conditions. They effectively control differences among regions in terms of economic development stages and resource endowments, thereby reducing the interference of omitted variables on the estimation of digital economic development and the value added of the accommodation and food services industry [26-28].

3.1.4. Mechanism Variables

Financing Constraints (FC) measure the degree of financing constraints faced by enterprises using the SA index constructed by Hadlock & Pierce ^[29]. The specific calculation formula is shown below. Here, Size represents the total assets of the enterprise, and Age represents the number of years since the enterprise's establishment.

$$SA = -0.737 \times Size + 0.043 \times Size^2 - 0.04 \times Age \quad (1)$$

3.2. Model Specification

3.2.1. Multi-period Difference-in-Differences Model

$$ACI_{it} = \alpha_0 + \alpha_1 DID_{it} + \alpha_2 Control_{it} + \beta_i + \omega_t + \varepsilon_{it} \quad (2)$$

Where i denotes the city; t denotes time; ACI_{it} denotes the value added of the accommodation and food services sector; DID_{it} represents the technology and financial policy, specifically the Treatpost cross-term; $Control_{it}$ represents a set of control variables; β_i denotes the individual fixed effect; ω_t denotes the time fixed effect; and ε_{it} denotes the random error term.

3.2.2. Mediation Effect Model

To further examine whether fintech can promote the development of the regional accommodation and food services industry by alleviating the financing constraints (FC) faced by small and medium-sized enterprises (SMEs), this paper draws on the empirical analysis methods for mediation effects proposed by Jiang Ting (2022) [30] to construct the following model:

$$FC_{it} = \chi_0 + \chi_1 DID_{it} + \chi_2 Control_{it} + \beta_i + \omega_t + \mu_{it} \quad (3)$$

In this context, $FC_{i,t}$ represents the firm's financing constraints. Based on existing theory, we further examine the causal relationship between the mediating variable and the dependent variable.

3.3. Data Sources and Descriptive Statistics

To ensure the validity and completeness of the data, this study selected panel data from 276 prefecture-level cities in China for the period 2009–2023 as the research sample, with a total of 4,140 observations. The sample does not include Hong Kong, Macao, or Taiwan. The primary data sources for the various variables include the China Urban Statistical Yearbook, the National Bureau of Statistics, provincial statistical yearbooks, customs statistics, and relevant documents on science and technology finance policies in Table1.

Table 1: Descriptive Statistics for Key Variables.

Variable type	Variable	N	Mean	SD	min	max
Dependent Variable	ACI	4140	0.362	0.676	-0.062	0.833
Core Independent Variable	DID	4140	0.124	0.330	0.000	1.000
	POP	4140	5.869	0.731	3.786	7.662
	ED	4140	6.998	1.376	2.732	10.249
	GDP	4140	10.497	0.604	9.022	11.811
Control Variables	OPEN	4140	0.193	0.312	0.002	1.753
	MOB	4140	-0.000	0.256	-0.326	1.399
	EDU	4140	0.180	0.040	0.091	0.276
	TECH	4140	0.016	0.014	0.001	0.076

	URB	4140	0.521	0.166	0.000	0.942
Mechanism Variables	FC	4140	0.159	0.155	-0.698	1.121

4. Empirical Results and Analysis

We ran a multicollinearity test. The variance inflation factor (VIF) had a maximum of 4.628 across all variables. The average VIF was 2.45. Both numbers were well below 5, which is the usual warning level. So no serious multicollinearity was found among the variables. We also did the LM test, the F-test, and the Hausman test. All three pointed to the same model choice. The two-way fixed-effects model is the best one for this study.

4.1. Test for Parallel Trends

We ran a parallel trends test. This allowed us to observe the dynamic effects before and after the policy shock. Based on the results of the backward-looking analysis, we constructed a parallel trends graph (Figure 1). In this graph, the thick line represents the values of the estimated coefficients for each time period. The dashed vertical lines indicate the point where the policy was implemented. The shaded area corresponds to the 95% confidence interval. The results of the test are presented below. In all time periods before the policy was implemented, the values of the estimated coefficients were close to zero. The null value was included in all confidence intervals. This means that they were not statistically significant. Consequently, before the policy was implemented, there was no difference between the experimental and control groups. The parallel trends assumption was confirmed. In the first period (post_1), as soon as the policy was implemented, the coefficient estimate was 0.15. This was not significant. This suggests a slight delay in the policy's effect. Then, starting from the second period (post_2), the coefficient estimate was positive and increased progressively. Zero was not included in the confidence interval. The positive effect kept getting stronger. This indicates that the technology-driven financial policy has a significant and progressively strengthening long-term promotional effect on the value added of the accommodation and food services sector in the pilot regions.

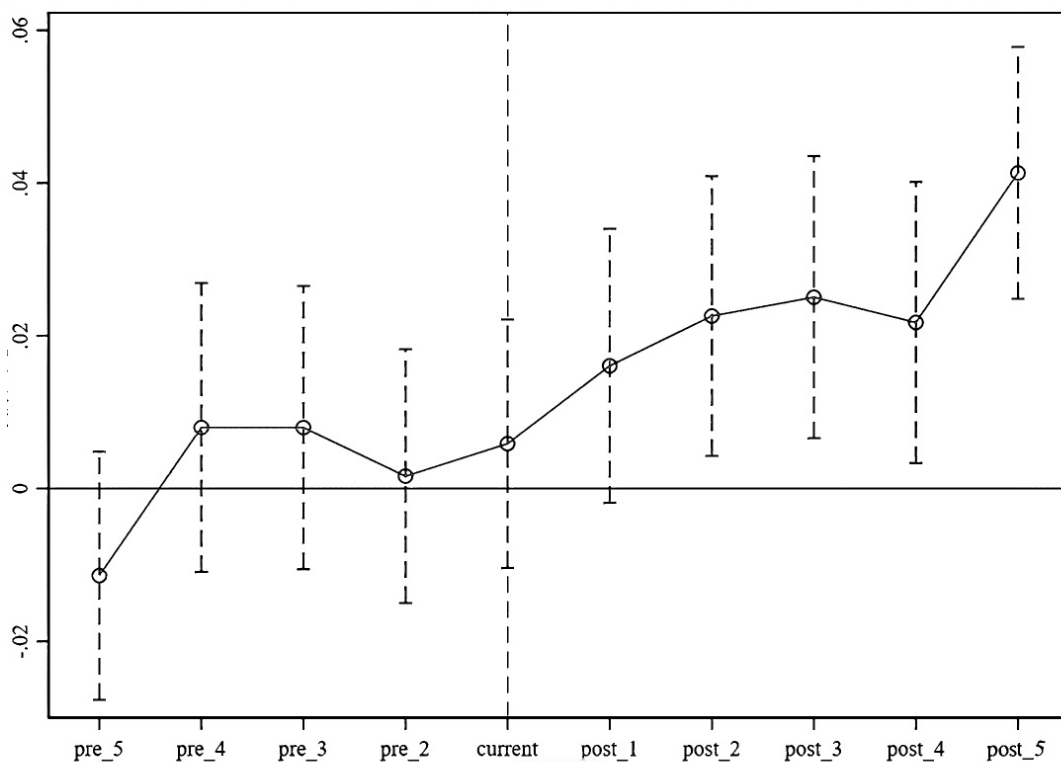


Figure 1. Parallel Trends Test Plot.

4.2. Analysis of Baseline Regression

Assuming parallel trends, this paper conducts a baseline regression analysis based on Model (1). After controlling for two-way fixed effects for city and year, the regression results are presented in Table 2. Column (1) does not include any control variables, while Column (4) includes all control variables. It can be seen that when no control variables are included, the coefficient of the technology-finance policy (DID) is 0.235 and is significantly positive at the 1% level; After progressively incorporating control variables, the DID coefficient in Column (4) remains at 0.282, still significant at the 1% level, and exhibits strong stability. This result indicates that the implementation of technology-driven financial policies has a significant positive impact on the value added of the accommodation and food services sector in pilot cities; following policy implementation, the output scale of this sector has increased markedly, suggesting that the policy shock itself is a key driver of growth in the accommodation and food services sector. Therefore, the core hypothesis H1 of this paper is confirmed: fintech policies are effective policy tools for driving the development of the urban accommodation and food services sector.

Table 2. Results of the benchmark regression.

Variable	ACI (1)	ACI (2)	ACI (3)	ACI (4)
DID	0.235*** (0.045)	0.218*** (0.042)	0.206*** (0.040)	0.282*** (0.057)
POP		0.412*** (0.038)	0.398*** (0.036)	0.472*** (0.033)
ED		0.326*** (0.041)	0.315*** (0.039)	0.207*** (0.026)
GDP		-0.152*** (0.028)	-0.148*** (0.027)	0.392*** (-0.042)
OPEN			-0.189*** (0.035)	-0.201*** (-0.036)
MOB			0.703*** (-0.026)	0.768*** (-0.038)
EDU				0.706** (-0.245)
TECH				-0.751 (-0.004)
URB				-0.142 (-0.010)
Constant	0.583*** (0.051)	-1.224*** (0.112)	-1.105*** (0.108)	-0.521*** (-0.046)
N	4140	4140	4140	4140
R ²	0.608	0.612	0.638	0.834
City Control	YES	YES	YES	YES
Year Control	YES	YES	YES	YES

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The following tables are identical

4.3. Robustness and Endogeneity Tests

4.3.1. Placebo Test

To rule out the interference of unobservable factors, this study employs a random sampling method to conduct a placebo test. Specifically, the experimental and control groups are randomly reassigned from the full sample, and the policy implementation time is randomly set to construct a dummy variable interaction term for the pseudo-policy (i.e., pseudo-DID). The regression is repeated 500 times. Based on the results of these 500 regressions, kernel density plots and p-value distribution plots of the pseudo-DID coefficients are plotted. The results indicate that the estimated pseudo-DID

coefficients are primarily concentrated around zero and follow an approximately normal distribution; the p-values for the vast majority of pseudo-policy effects exceed 0.1, indicating they are not significant at the 10% level. Meanwhile, the true DID coefficients in the baseline regression deviate significantly from the distribution of the pseudo-coefficients. This suggests that the impact of fintech policies on the value added of the accommodation and food services sector is not driven by omitted variables or random factors; the placebo test is passed, and the results of the baseline regression are robust.

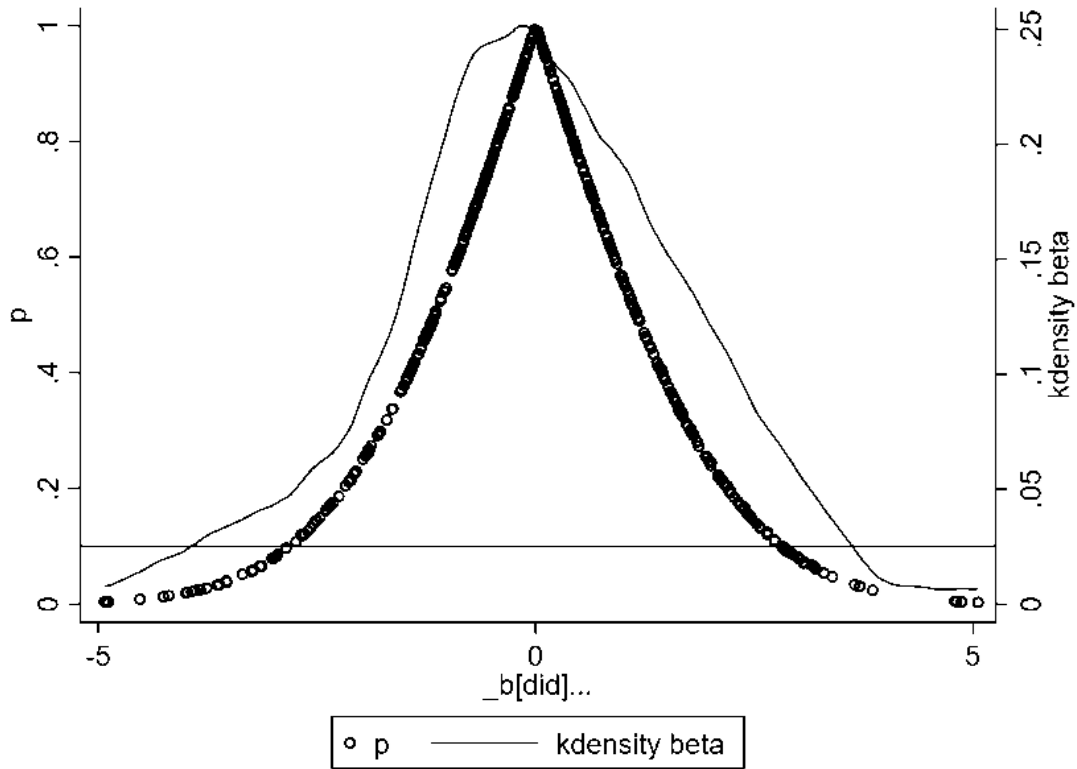


Figure 2: Placebo Test.

4.3.2. Controlling for Other Policy Interferences

Some other policies overlap. They might affect our results. So we bring in a control variable. It is the Financial Reform and Innovation Pilot Program (REF). This policy was launched in 2015, with the first batch of pilot areas including Taizhou in Zhejiang and the Guangdong Free Trade Zone. Given that the pilot in Jilin Province focused on rural finance and had a weak association with the urban accommodation and food services sector, it was excluded from the analysis. After coding REF as a dummy variable and rerunning the regression, the results are shown in Column (2) of Table 3. With REF controlled for, the coefficient of the core explanatory variable DID is 0.268, remaining significantly positive at the 1% level, which is consistent with the baseline regression results. Meanwhile, the coefficient of REF itself is 0.158, which is significant at the 1% level, indicating that the financial reform and innovation pilot policy also has a positive promotional effect on the value added of the accommodation and food services sector. The above results suggest that the positive impact of fintech policies is not driven by other related policies, and the conclusions are robust.

4.3.3. Extending the Time Window

Given that the impact of fintech policies on the value added of the accommodation and food services sector may exhibit time lags, this study further employs a one-period lagged term of the core explanatory variable in the regression analysis to examine the policy's persistent effects. As shown in Column (1) of Table 3, the lagged term is significantly positive at the 1% level, thereby resolving the endogeneity issue caused by bidirectional causality.

Table 3: Results of Robustness and Endogeneity Tests.

Variable	ACI (1)	ACI (2)
DID		0.268*** (0.055)
DID _{t-1}	0.348*** (0.052)	
REF		0.158*** (0.028)
Constant	-0.515*** (0.046)	-0.508*** (0.045)
Control Variable	Control	Control
N	3864	4140
R ²	0.828	0.842
City Control	YES	YES
Year Control	YES	YES

4.4. Analysis of the Mechanism of Action

According to the results in Table 4, the regression coefficient for science and technology finance policies on financing constraints is -0.185, and it is significant at the 1% level. Since a higher financing constraint index indicates more severe financing pressures faced by enterprises, this negative coefficient suggests that the implementation of science and technology finance pilot policies has significantly alleviated the financing difficulties of accommodation and catering enterprises in pilot cities, and the policy outcomes are in line with expectations. In terms of the mechanism of action, technology-driven financial policies, first, rely on digital tools such as big data credit assessment and supply chain finance to reduce information asymmetry between banks and enterprises, making it easier for small and micro enterprises lacking collateral to obtain credit support; second, they accelerate capital turnover through tools such as mobile payments and online settlements, thereby improving enterprises' cash flow. Financing constraints go down. Then businesses have more cash. They can move forward with investment projects. They can pay back debts (Kizildag et al., 2025) [31]. With enough cash, they open more stores. They are working to modernize their facilities. Furthermore, they are working to implement digital transformation. All of this contributes to increasing value added in this sector (Sun et al., 2020) [32]. Thus, Hypothesis H2 has been confirmed.

Table 4. Regression Results of Mechanism Effects.

variable	FC
DID	-0.185*** (0.042)
Constant	0.356*** (0.035)
Control Variable	Control
N	4140
R ²	0.652
City Control	YES
Year Control	YES

4.5. Heterogeneity Analysis

4.5.1. Heterogeneity in the Level of Tourism Development

The value obtained by dividing total tourism revenue by the gross regional product (GRP) is used. This yields a ratio. The cities were classified into two groups: “cities with high levels of tourism” and “cities with low levels of tourism.” The average value was used as the threshold (Ma & Ouyang, 2023; Li et al., 2024) [13,10]. The results are presented in columns (1) and (2) of Table 5. The DID

coefficient in cities with high tourism levels is 0.321. This is a positive value and statistically significant at the 1% level. In cities with low tourism levels, the DID coefficient is only 0.064. This value is not statistically significant. Consequently, the accommodation and food services sector is effectively dependent on tourists. Cities with high levels of tourism benefit from a broad tourist base. Financial technology policies are implemented through means such as mobile payments and consumer loans. These means quickly translate the benefits of the policy into increased demand for hotels and restaurants. On the other hand, cities with low levels of tourism present a different picture. These cities depend mainly on the local population. Financial technology has a limited impact on local consumption. Furthermore, even if local businesses are able to obtain financing easily, it takes longer for this to be reflected in the sector's value added. Consequently, it is difficult to observe the impact of these policies in the short term.

4.5.2. Heterogeneity in Urban Digital Infrastructure Levels

We divide the number of broadband Internet subscribers by the total population. This gives us a ratio (Wang 2023) [33]. Cities with a high ratio have advanced digital infrastructure, whereas those with a low ratio lack it. These results are presented in Table 5, in columns (3) and (4). In both groups, the DID coefficient is positive and statistically significant. However, the more developed the digital infrastructure, the higher the coefficient. What does this mean? Cities with good digital infrastructure have a well-established mobile payment network and effective online transaction platforms. These characteristics create synergies with fintech policies, allowing the benefits of these policies to be realized more quickly and spread more easily. On the other hand, the situation is different in cities that lack adequate digital infrastructure. In the absence of support from this infrastructure, the effectiveness of policies is somewhat limited. Nevertheless, there are positive effects, and these effects remain significant.

Table 5: Results of Heterogeneity Analysis.

Variable	(1) Tourist city	(2) Non-tourist city	(3) High digital infrastructure	(4) Low digital infrastructure
DID	0.321*** (0.048)	0.064 (0.045)	0.298*** (0.045)	0.236*** (0.042)
Constant	-0.586*** (0.058)	-0.452*** (0.062)	0.568*** (0.055)	-0.476*** (0.060)
Control Variable	Control	Control	Control	Control
N	2920	1220	1893	2247
R ²	0.856	0.412	0.858	0.819
City Control	YES	YES	YES	YES
Year Control	YES	YES	YES	YES

5. Conclusions and Recommendations

5.1. Conclusions

China is currently paying increasing attention to the digital economy. In addition, it aspires to become a major financial power. The hospitality and catering sector is playing an increasingly important role in the national economy. It is a key consumer services sector that creates jobs, stimulates consumption, helps to improve the structure of consumption, and enhances the quality and range of the services sector. This sector also influences digital transformation, brand development and chain development. This article discusses fintech policies. This is the starting point for this study. We analyse the impact of these policies on the added value of accommodation and catering services in urban areas. The sample covers 276 cities at the regional level in China. The period under consideration extends from 2009 to 2023. It treats the implementation of fintech policies as a natural experiment. To verify the impact of these policies, we use a cross-sectional differences-in-differences model. First, we conduct a baseline regression analysis. We then perform robustness, parallel trends and placebo tests.

Together, these tests ensure the reliability of our results. We focus on one main mechanism: the easing of financing constraints. We emphasise how fintech policies increase the value added of the accommodation and catering industry through this mechanism. We also examine the differences between cities. Two important aspects must be taken into account: the development of urban tourism and the cities' digital infrastructure. The policies do not have the same impact in every city.

5.2. Policy Recommendations

We will strengthen support for the hotel and restaurant sectors. To achieve this, we will utilise fintech. We will encourage banks to make use of big data, blockchain and artificial intelligence. We will develop products specifically tailored to small and medium-sized enterprises (SMEs) in these sectors. These include unsecured loans, working capital loans based on daily turnover, and equipment leasing programmes. This will lower the barriers to accessing finance. We will also promote tools such as integrated payment systems, QR code ordering and smart booking systems. This will reduce transaction costs and improve customer convenience.

We will focus on small and micro-enterprises. We will provide various forms of support to these businesses. This sector has limited assets. There is a lack of collateral. The capacity to take on risk is limited. Therefore, we will establish a credit rating system utilising big data. We will utilise tax returns, social insurance contributions, utility bills, and transaction data from food delivery platforms. This will improve the approval rate for first-time loans. Furthermore, the proportion of unsecured loans will increase. Whilst some enterprises face short-term difficulties, their long-term prospects are favourable. Support measures will be implemented for such enterprises, including tax incentives on interest payments and deferrals of principal and interest repayments.

We will leverage the tourism industry and digital infrastructure to amplify these effects. In major tourist cities, we will link fintech with cultural and tourism expenditure. We will create smart commercial districts and gourmet districts. We will utilise consumption vouchers, the digital yuan and online booking platforms to attract external demand. In regions with weak digital infrastructure, we will build faster 5G networks, install mobile payment terminals and construct data centres. These measures will provide the necessary foundation for fintech policies to function smoothly.

We will improve the local business environment and adjust the allocation of production factors. Local authorities should review their budgetary expenditure. Ensure that technology-related expenditure does not put pressure on public services. Ensure that education and human capital align with the needs of industry. Regulate the pace of urban growth. Regulate economic density. Prevent small and medium-sized enterprises in the accommodation and catering sectors from being squeezed out of the market by excessive competition. Furthermore, promote orderly data exchange. The government, banks and businesses must share data. This will enable the construction of a robust digital services ecosystem.

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