

# The Impact of Digital Finance Development on Regional Entrepreneurship

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**Abstract:** Entrepreneurial activity is an important pathway and major means for regional economies to achieve high-quality, efficient, and rapid growth. With the development and proliferation of mobile communication technology and internet technology in recent years, digital finance has risen and had profound impacts on regional entrepreneurship. Starting from the specific backgrounds of digital finance and regional entrepreneurship, this article delves into the intrinsic meaning of regional entrepreneurship and digital finance under the current situation. Based on this, model design, variable explanation, and data analysis are carried out to clarify the research method and complete the analysis of the research results. From this, we provide targeted and differentiated suggestions from three aspects: strengthening the construction of digital financial infrastructure, promoting the reform of digital financial systems, and advancing the development of digital finance in regions. This is intended to help future researchers deepen their understanding of the "Digital China" concept and provide reference and assistance for subsequent information analysis and strategy design.

**Keywords:** Digital Finance; Regional Entrepreneurship; Impact

## 1. Introduction

In the new era, China's economy has gradually shifted from rapid growth to high-quality development. In this context, regional innovation and entrepreneurial activities, as the main driving force of regional development, are increasingly receiving attention. As a basic support for efficiently and rapidly enhancing regional innovation and entrepreneurship levels, digital finance and its role in economic growth, industry development, and technological innovation are increasingly being recognized. Currently, research on the specific relationship between regional entrepreneurship and digital finance in China is still in its early stages, making it difficult to design specific strategies. The issue of how to fully leverage digital finance as a complement to traditional finance to help regional entrepreneurship develop in an efficient, rapid, and high-quality manner has become a topic of interest to researchers.

## 2. Research Background

Digital finance is an innovative financial service supply form formed by the deep integration of various types of digital information technology methods and traditional financial service activities under the background of the information age. Together with internet finance and technology finance, it constitutes the concept of the digital finance spectrum, which is coupled with digital technology and finance. Because of its specific financial characteristics in alleviating information asymmetry, providing precision services, and expanding the scope of financial services, inclusiveness has become its core value. The difference between digital financial activities and traditional financial activities is mainly reflected in two aspects: at the macro level, digital financial activities emphasize equal growth of opportunities, that is, inclusive growth, based on which they achieve high-quality economic development in regions and technological innovation within regions; at the micro level, digital financial activities focus on smaller economic entities and can effectively reduce the specific difficulties of financing for small businesses, which is an important supplement to traditional financial activities[1]. Entrepreneurial activities are an important route and key driver for the high-quality, efficient, and rapid growth of regional economies. On the one hand, it can bring more job opportunities to the region, benefiting more people. On the other hand, it can optimize the region's market environment and promote the development, innovation, upgrading, and transformation of the industries within the region.

Therefore, our party has always paid high attention to issues related to innovation and entrepreneurship and actively formulated a series of encouraging policies to create an entrepreneurial atmosphere and promote entrepreneurial activities. However, as entrepreneurial activities emphasize the high degree of consistency between entrepreneurial opportunities and resource integration, their actual implementation largely depends on the specific economic environment and is constrained by the fundamental issue of the sources of entrepreneurial funds.

Due to the traditional financial institutions' preference for wealthier clients, regional entrepreneurial activities often have difficulty accessing financial services. However, the inclusive effect of digital finance can effectively alleviate financial constraints and promote entrepreneurial activities. By broadly enabling entrepreneurial entities to access financial services, digital finance effectively enhances the vitality of regional entrepreneurship. Therefore, it is imperative to conduct research on the relationship between the two.

### 3. Research Method

After analyzing the specific background of digital finance and regional entrepreneurship, this paper empirically studies the relationship between digital finance and regional entrepreneurship from the perspective of empirical analysis. The research method can be divided into three parts: model design, variable description, and data analysis.

(1) Model design: The econometric model used in this study is:

$$\ln Entre_{i,t} = \alpha + \beta_1 DF_{i,t} + \lambda Control_{i,t} + u_i + v_t + \varepsilon_{i,t} \quad (1)$$

In this econometric model, variables  $i$  and  $t$  represent specific regions and specific years respectively.  $Entre_{i,t}$  represents the dependent variable, broadly referring to regional entrepreneurship;  $DF_{i,t}$  is the core explanatory variable, referring broadly to digital finance;  $\alpha$  is a constant;  $\beta$  is the specific coefficient affecting digital finance;  $Control_{i,t}$  represents a set of control variables that affect regional entrepreneurship.

(2) Variable description: The main variables in the above econometric model are the dependent variable  $Entre_{i,t}$ , the core explanatory variable  $DF_{i,t}$ , and the set of control variables  $Control_{i,t}$ . The dependent variable, regional entrepreneurship, is defined by the number of newly established enterprises. The core explanatory variable, digital finance, is confirmed based on the Digital Inclusive Finance Index of Peking University. The control variables are comprehensively designed according to the level of regional openness, labor costs, comprehensive unemployment rate, policy support, consumption level, etc.[2].

(3) Data Analysis: Data analysis is mainly divided into two parts, statistical data description and collinearity and correlation test. The data for the analysis mainly come from China's city panel data. The purpose of the statistical data description is to analyze the balance of entrepreneurship activities in various regions of China. The purpose of collinearity and correlation test is to analyze the relative relationship between digital finance and regional development, and judge whether the two are related.

### 4. Research Results

Based on the analysis of digital finance and regional entrepreneurship activities in various regions of our country using the above methods, this paper arrives at the following research results.

(1) Digital finance plays a more prominent role in promoting regional entrepreneurship in regions where traditional financial construction is relatively primitive. Due to its inclusive effects, digital finance has better coverage, usage depth, and service granularity than traditional finance models. This advantage is particularly evident in areas where financial service outlets are scarce, financial service personnel are lacking, and financing is more difficult due to poor traditional financial construction. Digital finance effectively fills the gap in regional entrepreneurship support from traditional finance, significantly reducing the difficulty of regional entrepreneurship.

(2) Digital finance provides stronger support for the entrepreneurial activities of small and micro enterprises. With the widespread adoption of mobile communication technology and the upgrade and iteration of information technology, entrepreneurs can access various types of financial services via digital finance platforms anytime, anywhere. Digital finance effectively promotes information

exchange between entrepreneurs and the market, thereby strengthening data sharing, breaking down data barriers, ensuring information symmetry, and alleviating the financing and information constraints caused by the "rich preference" of traditional financial service institutions, helping small and micro enterprises with certain bases to achieve value transformation and influence enhancement.

(3) The specific impact of digital finance on entrepreneurship in different regions varies. There are significant differences between the entrepreneurial environments in different regions. On the one hand, this is due to the comprehensive influence of factors such as the level of openness, labor costs, comprehensive unemployment rate, policy support, and consumption level. On the other hand, it is also affected by regional historical factors and cultural inertia. This leads to a difference in the specific impact of digital finance on entrepreneurship in different regions. Relevant regions need to pay attention to market conditions, regional conditions, and industry status when designing application policies, so as to realize the differentiation of models[3].

## **5. Suggestions and Implications**

Based on the above research results, to further promote the development of digital finance in our country, empower regional entrepreneurial activities, and realize high-quality, high-efficiency, and high-speed economic growth, this paper specifically proposes three suggestions for enhancing the construction of digital finance-related infrastructure, promoting the reform of the digital finance system, and advancing the regional development of digital finance.

### ***5.1. Strengthen the construction of digital finance-related infrastructure***

To further highlight the role of digital finance in promoting regional innovation and entrepreneurship and its positive impact on regional innovation and entrepreneurship, relevant departments of the regional government should appreciate the important value of data as a key basic production material in the digital economy era. They should optimize the specific mechanisms for the financial industry to collect, organize, process, and trade data by strengthening the construction of digital finance-related infrastructure. Specific suggestions include the following two aspects:

(1) Pay attention to hardware facility layout, and deepen the impact of digital finance. In order to fully demonstrate the superior features of digital finance in expanding traditional financial service areas and providing precise push services, local governments should widely layout financial hardware facilities and actively set up government financing platforms, data trading institutions, and big data analysis institutions to meet the gradually increasing demands of digital finance development. This simplifies the difficulty of financing, scientifically constructs the ecosystem of digital finance, and thus serves regional entrepreneurship. When arranging hardware facilities, local governments should pay attention to the introduction of technology, ensure that the computing power of hardware facilities meets work requirements, and unify the design planning and application standards of various financial institutions and hardware manufacturers based on this, thereby ensuring the unimpeded flow of various types of entrepreneurial activities in the region in digital financial activities[4].

(2) Pay attention to data system design and optimize financial data norms. Based on the improvement of hardware facility layout, local governments should pay attention to the problems existing in the construction of digital finance-related infrastructure at this stage, such as lack of institutional construction, practice preceding norms, mismatch of hardware and software, and non-unified data standards. Therefore, on the one hand, local governments should further refine and deepen the specific design of the data system, comprehensively subdivide the distribution of income and responsibility details of data collection, organization, processing, trading, and other activities, thereby promoting the normalization, integration, and institutionalization of the market. On the other hand, they should strengthen the supervision of information security issues to ensure that licensed institutions and financial institutions conducting digital financial-related businesses have the appropriate qualifications, thereby optimizing the application environment of digital finance, "opening the front door" for regional innovation and entrepreneurship activities, and ensuring the harmony and stability of market mechanisms.

### ***5.2. Promote the Reform of the Digital Financial System***

Digital finance, based on technologies such as artificial intelligence, blockchain, big data, and algorithm applications, is pushing innovation, development, and change in the financial industry.

Meanwhile, it is also bringing disruptive challenges to traditional finance and traditional financial models. In this context, in order to maintain market stability and optimize the role of digital finance in regional innovation and entrepreneurship, regional governments should further promote the reform of the digital financial system and optimize the specific design of digital financial supervision models with innovative ideas.

On the one hand, regional governments should base themselves on the fundamental concept of "comprehensive planning and development", fully utilize their own functional utilities, and correctly handle the relative relationship between regional innovation and entrepreneurship and digital finance. As digital finance still belongs to the category of financial activities, it should avoid financial bubbles caused by excessive liberalization and vitality reduction caused by a "one-size-fits-all" approach. Instead, it should accelerate the transformation of digital financial management concepts, recognize the important value of the concept of "relative safety", and, while playing a timely risk identification, response, and control role in supervisory activities, reasonably control the development scale of digital finance. The balance between free innovation in digital finance and stable safety should be found, and the relative relationship between regional innovation, entrepreneurship, and digital finance should be properly handled, developing digital finance while ensuring overall entrepreneurial vitality.

On the other hand, regional governments should focus on the specific orientation of "high-level openness". The ultimate purpose of regional innovation and entrepreneurship activities is to achieve high-speed, high-quality development of the regional economy, which cannot be separated from external communication and exchanges. At the same time, the innovation of digital finance models and mechanisms is still in the stage of accumulating original experiences, and the design and adjustment of relevant policies and regulations need to develop through continuous communication and exchanges, which is consistent with the high mobility and universality of digital finance. Therefore, to promote the reform of the digital financial system, local governments should improve relevant laws and regulations, ensure the dominance and continuity of legal activities in digital financial activities, maintain a healthy order in the financial market, and provide a solid institutional foundation and legal guarantee for regional innovation and entrepreneurship activities.

### ***5.3. Promote the Regional Development of Digital Finance***

To further promote the regional development of digital finance and serve regional innovation and entrepreneurship, this paper specifically proposes the following three suggestions:

(1) Improve platform construction and promote the sharing of financial resources. Regional governments should deepen financial concepts, refine financial needs, and clarify financial activities according to their own industrial environment and development conditions, and build a comprehensive financial service platform spanning provinces, cities, and counties. This will promote the sharing of digital financial resources within the financial service platforms of all regions and levels and provide impetus for the emergence of innovative activities in various industries. On the one hand, financial service platforms at all levels within the region should standardize standards, coordinate development trends according to market conditions, adjust development policies, and ensure the stability and reliability of the regional digital financial environment, avoiding market fluctuations; On the other hand, to promote the development of digital finance in the region, digital financial service platforms at all levels should regularly evaluate the market environment within the region and timely introduce financial service products that meet the entrepreneurial needs of various industries to meet different industry needs[5].

(2) Pay attention to technology application and improve the effectiveness of financial services. Science and technology are the primary driving forces, so to promote the regional development of digital finance, the deep integration of digital finance and information technology should be further strengthened to expand the practical functions of digital finance. On the one hand, the region should fully utilize information technology based on existing digital financial platform construction to effectively link various types of plates, fully utilize the empowering effect of technology, provide direct financing, indirect financing, financing guarantee, and other types of financial services for regional innovation and entrepreneurship activities, and simplify the difficulty of entrepreneurship; On the other hand, it should fully utilize technology applications to optimize the actual process of financial services, strengthen data sharing, break data barriers, ensure information symmetry, further reduce the difficulty of financing for entrepreneurial activities, and pay attention to the development and research of relevant digital financial technologies to consolidate the technical foundation[6].

(3) Strengthen differential design and create a digital financial model. Regions should explore characteristic, operable, and easily applicable digital financial models according to their own development needs, based on their own financial industry development experience, and combined with external digital finance application cases. Local governments should combine resource advantages and location advantages, accelerate the policy innovation of digital finance on the one hand, issue digital financial service mechanisms with local characteristics, and "open the front door" for regional entrepreneurial activities; on the other hand, they should strengthen the construction of the digital financial system within the region, standardize and streamline the specific support of digital financial activities for regional innovation and entrepreneurship, thereby further promoting industrial development, upgrading, and transformation.

## 6. Conclusion

In summary, as a key support for regional entrepreneurship, digital finance has an excellent positive impact on regional entrepreneurship due to its inclusive characteristics in alleviating information asymmetry, providing precise services, and expanding the scope of financial services. Therefore, relevant researchers should recognize the important supplementary role of digital finance to the traditional financial system, pay attention to its important role in economic growth, industrial development, and other aspects at the macro level, and timely optimize and adjust relevant policies; at the micro level, they should pay attention to its key impact on technological innovation, corporate exports, and other aspects, improve the construction of digital financial-related infrastructure, through the reasonable allocation of production factors, scientific design of development mechanisms, improve the level of regional entrepreneurship, and contribute their own strength to the development, upgrading, and transformation of the regional economy.

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