

Digital Inclusive Finance Empowers the Development of New Quality Productive Forces in the Yangtze River Delta Urban Agglomeration: Theoretical Analysis and Empirical Testing

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Abstract

Gaining a deeper understanding of the relationship between digital inclusive finance and the development of new quality productive forces is of great significance for promoting the aggregation of various advanced production factors towards new quality productive forces and accelerating their development. This paper empirically examines the impact of digital inclusive finance on new quality productive forces based on panel data from 41 cities in the Yangtze River Delta region from 2010 to 2023. The research findings indicate that digital inclusive finance can significantly promote the development of new quality productive forces, with its effects being more pronounced at deeper levels of usage. Therefore, to accelerate the development of new quality productive forces, it is essential to actively promote the development of digital inclusive finance and improve the mechanisms for regional coordinated cooperation.

Keywords

New Quality Productive Forces; Digital Inclusive Finance; Yangtze River Delta Region; Technological Innovation.

1. Introduction

In recent years, the accelerated evolution of unprecedented global changes has intensified competition in a new round of technological and industrial revolutions. As a key theme of high-quality economic development, it is essential to accelerate the advancement of new quality productive forces. Xi Jinping, during the eleventh collective study session of the Politburo of the Communist Party of China, proposed the need to accelerate the development of new quality productive forces, emphasizing that "developing new quality productive forces is an inherent requirement and an important focal point for promoting high-quality development. We must continue to make innovation a major focus and promote the accelerated development of new quality productive forces. [1]" On July 18, the decision passed by the Third Plenary Session of the 20th Central Committee of the Communist Party of China once again mentioned the need to "accelerate the formation of production relations that are more compatible with new quality productive forces and promote the aggregation of various advanced production factors towards developing new quality productive forces. [2]" New quality productive forces further elaborate on the connotation of high-quality economic development, representing an advanced form of productive forces that aligns with the new development philosophy, thereby laying the foundation for China-style modernization[3]. Currently, developing new quality productive forces presents significant theoretical and practical challenges for the Chinese economy's transition toward high-quality development. Questions regarding what constitutes new quality productive forces, why they should be developed, and how to develop them have become research hotspots.

To develop new quality productive forces, it is crucial to firmly grasp technological innovation as the "steering wheel." We must "use disruptive technologies and cutting-edge technologies to create new industries, new models, and new driving forces, thereby developing new quality productive forces." In this context, digitization drives the development of digital frontier technologies, and the modern industrial system is being reshaped. The new quality productive forces formed through the structural reform of productivity, led by the digital economy, are the key driving force for building a modern industrial system[4]. In this process, financial development has played an important role in the transformation of China's economy towards high quality. Traditional finance has structural issues during its development, leading to a significant "liquidity stratification" of financial resources. However, with the advancement of digital technologies, finance has strengthened its integration with innovative technologies, which has, to some extent, led to the development of digital inclusive finance[5]. The rapid development of digital inclusive finance has been recognized in the literature as a means to alleviate liquidity constraints, enhance social welfare, and increase residents' incomes through "shared prosperity" and "shared benefits," thereby contributing to common prosperity and unlocking digital dividends[6]. Moreover, digital inclusive finance jointly promotes common prosperity by improving financing efficiency, stimulating entrepreneurial vitality, and facilitating technological innovation, and there exists a spatiotemporal effect between the two[7], [8]. However, there is relatively little literature exploring the relationship between digital inclusive finance and new quality productive forces. Therefore, this paper is based on panel data from 41 cities in the Yangtze River Delta region from 2010 to 2023 and constructs an indicator system for new quality productive forces from three dimensions: laborers, labor objects, and labor resources. It discusses the relationship between digital inclusive finance and new quality productive forces, heterogeneity testing, influence mechanisms, and spatial correlation. The empirical results indicate that: first, from 2010 to 2023, new quality productive forces in the Yangtze River Delta region experienced rapid development, with an average growth rate of 9.13%; second, digital inclusive finance has a significant driving effect on the development of new quality productive forces, and its promoting effect is more pronounced in terms of usage depth and level of digitization; third, there is regional heterogeneity in the impact of digital inclusive finance on the development of new quality productive forces, with Jiangsu Province's development being more sensitive to digital inclusive finance compared to Zhejiang Province and Anhui Province.

2. Theoretical Analysis and Research Hypotheses

New quality productive forces reflect the advanced productive quality of the new development concept. Its essence is represented by advanced productive forces that continuously expand and elevate through the optimization and combination of laborers, labor objects, and labor resources. Digital inclusive finance, as an emerging financial model that combines traditional finance with digital technology, relies on new technologies such as cloud computing and big data. It promotes financial inclusion and the development of inclusive finance through its convenience and accessibility, providing a core driving force for the development of new quality productive forces. First, digital inclusive finance can continuously promote the optimization of the employment structure[9], providing more job opportunities for high-quality talent and better leveraging the advantages of human resources, thereby facilitating the continuous advancement of new quality labor factors. On one hand, digital inclusive finance promotes the optimization and upgrading of industrial structure by facilitating labor mobility, thereby enhancing the competitiveness of regional economic development[10]. It encourages high-quality talent to cluster in high-tech industries, stimulates the entrepreneurial enthusiasm of laborers, and further promotes the development of new quality productive forces. On the other hand, the development of digital inclusive finance has led to an increase in job opportunities in

related technological industries, which raises the requirements for laborers. This, in turn, compels labor factors to ascend to a higher level, promoting the development of new quality productive forces through "new quality laborers." Secondly, the technological innovations of digital inclusive finance have transcended the boundaries of traditional finance, expanding the scope of labor objects and serving the real economy in a more efficient and convenient manner. Intangible assets, such as data and information, play a significant role in the digital economy. The substantial leap in total factor productivity has greatly enlarged the scale of labor objects, and these labor objects have undergone profound transformation in a "digital" manner[11]. Digital inclusive finance has significantly reduced the costs and barriers of financial services through digital technology, broadening the scope of financial services. This helps to stimulate market vitality and creativity, providing strong support and driving force for the development of new quality productive forces[12]. Finally, the development of digital inclusive finance has facilitated the construction and improvement of relevant digital infrastructure, completing the upgrading and transformation of traditional labor resources and effectively empowering the development of emerging industries, thereby injecting core motivation into the development of new quality productive forces. On one hand, the continuous development of digital inclusive finance drives the ongoing improvement of digital infrastructure, providing a realistic basis for the development of new quality productive forces and supporting their long-term sustainable growth. On the other hand, relying on digital technology, digital inclusive finance continually promotes the development of regional financial service capabilities to facilitate the transition of the economy towards high-quality development, advancing the continuous improvement of the institutional environment and market system within the region, and effectively upgrading intangible productive resources, thus supporting the development of new quality productive forces[13]. Based on the above analysis, the research hypothesis H1 is proposed:

H1: Digital inclusive finance can significantly enhance the development level of new quality productive forces in the Yangtze River Delta region.

3. Research Design

3.1. Model Specification

Based on the theoretical analysis and existing literature discussed earlier, and considering the differences in characteristics among cities, this paper uses a two-way fixed effects model to examine the impact of digital inclusive finance on the development of new quality productive forces. The model specification is as follows:

$$CNQP_{it} = \alpha_0 + \alpha_1 DIFI_{it} + \sum_{k=2}^T \alpha_k controls_{it}^k + \mu_i + \theta_t + \varepsilon_{it} \quad (1)$$

In this model, $CNQP_{it}$ represents the development level of new quality productive forces in city i during year t , and the core explanatory variable $DIFI_{it}$ refers to the digital inclusive finance index. To mitigate estimation bias caused by omitted variables as much as possible, this paper includes a series of control variables to account for factors influencing the development of new quality productive forces, which mainly include population size (Peo), economic size ($GDPret$), industrial development level ($Indus$), government intervention capacity (Gov), and financing efficiency level (Fe). μ_i and θ_t represent the fixed effects for cities and years, respectively, while ε_{it} is the random error term.

3.2. Variable Selection and Description

Table 1. Evaluation Index System for New Quality Productive Forces

Primary Indicator	Secondary Indicator	Tertiary Indicator	Measurement Method	Attribute
New Quality Laborers	New Quality Human Capital Investment	Scientific Investment	Financial Expenditure on Science and Technology (Unit: 100 Million Yuan)	+
		Education Investment	Financial Expenditure on Education (Unit: 100 Million Yuan)	+
	New Quality Human Capital Output	Proportion of Employees in the Tertiary Industry	Employees in the Tertiary Industry / Total Employment (%)	+
		Higher Education Level	Number of Students Enrolled in Regular Higher Education Institutions Per Year (Ten Thousand People)	+
New Quality Labor Objects	Emergence of New Quality Industries	Development of Strategic Emerging Industries	Innovation and Entrepreneurship Index (IRIEC)	+
		Robotics Application Level	Industrial Robot Density	+
	New Quality Green Environment	Pollution Reduction	Industrial Sulfur Dioxide Emission / GDP (Tons / 100 Million Yuan)	-
			Industrial Wastewater Emission / GDP (Ten Thousand Tons / 100 Million Yuan)	-
			General Industrial Solid Waste Generation / GDP (Ten Thousand Tons / 100 Million Yuan)	-
		Green Environmental Protection Efforts	Energy Conservation and Environmental Protection Fiscal Expenditure / Government Public Fiscal Expenditure	+
New Quality Labor Resources	Traditional Infrastructure Construction Level of Digital Infrastructure Improvement	Infrastructure Construction	Road Mileage (Kilometers)	+
		Internet Penetration Rate	Proportion of Internet Users to Permanent Population	+
		Mobile Phone Penetration Rate	Proportion of Mobile Phone Users to Permanent Population	+
		Telecom Service Penetration Rate	Per Capita Total Telecom Services	+
	Energy Consumption Level	Total Energy Consumption	Energy Consumption per Unit of Regional GDP (Equivalent Value)	-
		Renewable Energy Consumption	Total Industrial Water Consumption / GDP (Ten Thousand Cubic Meters / GDP	-

(1) Dependent Variable: Development Level of New Quality Productive Forces in the Yangtze River Delta Urban Agglomeration (CNQP). Regarding new quality productive forces, it fundamentally belongs to the category of productivity. Its connotation is as Xi Jinping described: "The leap of laborers, labor resources, labor objects, and their optimized combination as the

basic essence, with a significant increase in total factor productivity as the core indicator. The characteristics include innovation, the key focus is on quality, and its essence is advanced productive forces [14]". When evaluating the development level of new quality productive forces, it is essential to remain within the framework of productivity. The discussion of new quality productive forces cannot be separated from the three essential elements of productivity: laborers, labor objects, and labor resources. Additionally, it is important to emphasize that the coordination, optimization, and leapfrogging among the elements of new quality productive forces are the intrinsic driving forces that promote their development, collectively advancing high-quality economic growth and ultimately achieving common prosperity[15]. Therefore, when measuring new quality productive forces, this study refers to the research of scholars such as Han Wenlong et al.[16], Wang Ke and Guo Xiaoxi[17],and Zhu Fuxian et al. [18] , decomposing the new quality productive force system into three dimensions: new quality laborers, new quality labor objects, and new quality labor resources, comprising a total of 16 indicators to evaluate the development level of new quality productive forces in the 41 cities of the Yangtze River Delta. The established evaluation index system for new quality productive forces is shown in Table 1.

(2) Core Explanatory Variable: Digital Inclusive Finance Index (*DFIIC*): This paper uses the Digital Inclusive Finance Index developed by the Peking University Digital Finance Research Center to measure the development level of digital inclusive finance in various prefecture-level cities. The index is divided into three dimensions: coverage breadth, usage depth, and degree of digitization. The selected time frame is from 2010 to 2023, with some missing data supplemented using interpolation methods[19].

(3) Control Variables: 1) Population Size Level (*Peo*), measured by the logarithm of the permanent resident population. 2) Economic Size Level (*GDPret*), measured by taking the logarithm of the GDP of each city. 3) Industrial Development Level (*Indus*), measured by the logarithm of the total profit of above-scale industrial enterprises per capita in each city. 4) Government Intervention Capacity (*Gov*), measured by the proportion of fiscal expenditure to GDP. 5) Financing Efficiency Level (*Fe*), measured by the ratio of the deposit balance of financial institutions in the region to the loan balance.

3.3. Data Sources and Descriptive Statistics

This study takes the 41 cities in the Yangtze River Delta region as the research subjects, constructing city panel data from 2010 to 2023, ultimately resulting in 574 observations. Due to some missing original data, interpolation and extrapolation methods were used to supplement the missing values. The data sources include the "China Statistical Yearbook," "China Energy Statistical Yearbook," "China Environmental Statistical Yearbook," "China Urban Statistical Yearbook," "China Labor Statistical Yearbook," as well as statistical yearbooks from various prefecture-level cities. Additionally, the data is supplemented by the China Economic and Social Big Data Research Platform and the Wind Information Database.

Descriptive statistics for each variable are shown in Table 2. It can be observed that the maximum value of the development level of new quality productive forces is 0.6776, while the minimum value is only 0.0202, with a standard deviation of 0.0719. This indicates that the development level of new quality productive forces varies significantly among different cities and periods. From the perspective of the evaluation dimensions of new quality productive forces, the standard deviation for new quality labor objects is the largest at 0.0383, and its maximum value is also the highest among the three dimensions at 0.4395, while the mean is the lowest at 0.0213. This suggests that the phenomenon of imbalanced development in labor objects is the most serious issue in the development of new quality productive forces.

Table 2. Descriptive Statistics of Each Variable

Indicator Attribute	Variable Name	Sample Size	Mean	Standard Deviation	Minimum Value	Maximum Value
Dependent Variable	<i>CNQP</i>	574	0.0824	0.0719	0.0202	0.6776
	<i>C-nqw</i>	574	0.0261	0.0377	0.0019	0.3955
	<i>C-nqlo</i>	574	0.0213	0.0383	0.0071	0.4395
	<i>C-nqlm</i>	574	0.0351	0.0174	0.0078	0.1211
Explanatory Variable	<i>DFIIC</i>	574	0.4882	0.2517	0	1
	<i>Breadth</i>	574	0.4948	0.2513	0	1
	<i>Udepth</i>	574	0.4818	0.2305	0	1
	<i>Dlevel</i>	574	0.5082	0.2521	0	1
Control Variable	<i>Peo</i>	574	6.1060	0.6534	4.2822	7.8196
	<i>GDPret</i>	574	7.9799	0.9758	5.7370	10.7590
	<i>Indus</i>	574	8.5863	0.9069	5.5717	10.2452
	<i>Gov</i>	574	0.1830	0.1700	0.0760	1.3556
	<i>Fe</i>	574	1.2957	0.2697	0.8270	2.3617

Note: To eliminate dimensionality, the Digital Inclusive Finance Index and the dimensions of coverage breadth, usage depth, and degree of digitization have been normalized.

Figure 1 visually reflects the development of new quality productivity in the Yangtze River Delta region from 2010 to 2023. From the figure, it can be seen that the new quality productivity in the Yangtze River Delta region increased from 0.0842 in 2010 to 0.2404 in 2023, showing an overall growth trend, with an average growth rate of 9.13%.

In terms of the growth rate trend, the development level of new quality productivity continued to improve between 2012 and 2018. Although there was a slowdown in growth in 2013, with a rate of only 6.24%, it peaked in 2018 at 18.73%. This may be attributed to China's economic development reaching new heights in 2018, with supply-side structural reforms being advanced, further driving economic transformation and upgrading. As one of the important engines for regional economic development in China, the Yangtze River Delta naturally experienced rapid growth in new quality productivity.

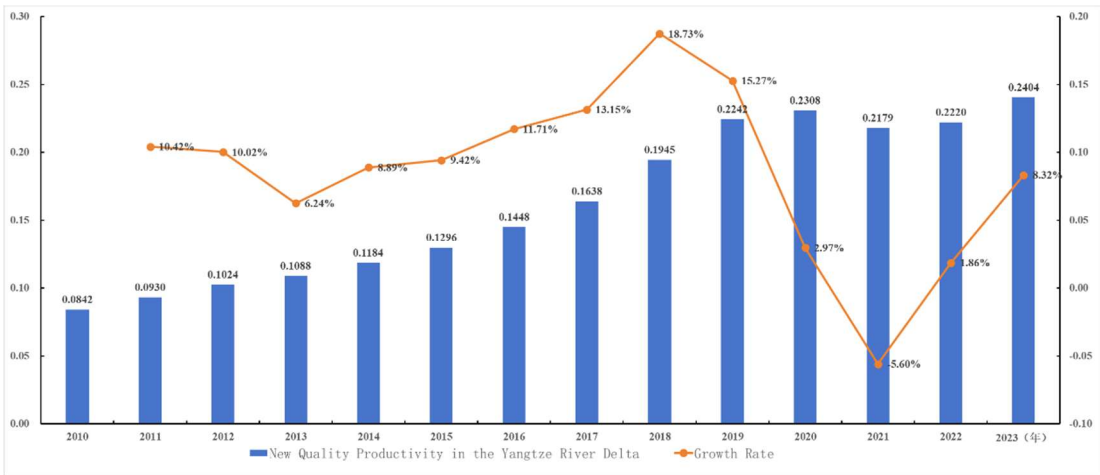


Figure 1. Average Development Level and Growth Rate of New Quality Productivity in the Yangtze River Delta Region

From 2019 to 2023, the overall growth rate exhibited a "V" shape, with a gradual decline from 2019 to 2021. Notably, the growth rate in 2021 was -5.60%, which can reasonably be attributed

to the lagging impact of the public health crisis that erupted at the beginning of 2020, leading to a decline in new quality productivity in the Yangtze River Delta region in 2021. As the economy recovered, the growth rate of new quality productivity rose continuously from 2022 to 2023, reaching 8.32% in 2023, with the development level of new quality productivity also reaching the highest value during the observation period at 0.2404.

4. Empirical Analysis

4.1. Baseline Regression

Based on model (1), the impact of digital inclusive finance on the development level of new quality productivity in the Yangtze River Delta urban agglomeration was examined, with specific results shown in Table 3. It can be observed that the coefficient of digital inclusive finance (*DFIIC*) is significantly positive at the 1% level, indicating that digital inclusive finance can promote the development of new quality productivity in the Yangtze River Delta urban agglomeration, thereby confirming hypothesis H1.

Regarding the control variables, the coefficients for economic development level and financing efficiency level are also significantly positive, suggesting that improvements in economic development and financial financing efficiency can significantly enhance the development of new quality productivity in the Yangtze River Delta urban agglomeration.

Table 3. Baseline Regression Results

Variable	(1) <i>CNQP</i>	(2) <i>CNQP</i>	(3) <i>CNQP</i>	(4) <i>CNQP</i>
<i>DFIIC</i>	0.3860*** (5.82)	0.3118*** (4.36)	0.2415*** (3.56)	0.2256*** (3.11)
<i>Peo</i>			-0.0032 (-0.31)	-0.0157 (-1.04)
<i>GDPret</i>			0.0469*** (4.83)	0.0390* (1.7)
<i>Indus</i>			-0.0064* (-1.74)	-0.0055 (-1.47)
<i>Gov</i>			-0.0030 (-0.15)	-0.0135 (-0.56)
<i>Fe</i>			0.0576*** (6.27)	0.0533*** (5.28)
Constant Term	0.0334*** (3.50)	0.0366*** (6.78)	-0.3159*** (-5.03)	-0.1821 (-0.94)
City/Year	NO/YES	YES/YES	NO/YES	YES/YES
R ²	0.3659	0.4142	0.4444	0.4458
Sample Size	574	574	574	574

Note: The values in parentheses represent t-values; ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The same applies to the following text.

4.2. Robustness Test

To further verify the robustness of the above conclusions, the following three methods will be adopted for the robustness test.

Table 4. Robustness Test

Variable	(1) Excluding Shanghai and Hangzhou	(2) Adjustment Interval	(3) Changing the Treatment Method of Explanatory Variables	(4) Panel Tobit Regression
<i>DFIIC</i>	0.1053** (2.59)	0.3431*** (3.11)	0.0638*** (3.29)	0.0347*** (2.80)
Control Variable	YES	YES	YES	YES
City/Year	YES/YES	YES/YES	YES/YES	YES/YES
R ²	0.6498	0.4031	0.4470	—
Sample Size	546	451	574	574

First, some samples are excluded. Considering that the level of development of digital inclusive finance in Shanghai and Hangzhou is significantly higher than that of other cities in the Yangtze River Delta region, robustness tests will be conducted after excluding these samples. The results in column (1) of Table 4 show that the coefficient remains significantly positive. Additionally, the observation period for this sample is from 2010 to 2023. Due to the slow development of digital inclusive finance in the early years, its economic effects were not evident. Therefore, after excluding the data from 2010 to 2012, the test was redone, and the results shown in column (2) indicate that the coefficient remains significantly positive at the 1% level. Second, different treatments of the explanatory variables are applied. Referring to the approach of Fang Xianming and Wang Yu[20], the core explanatory variable, the Digital Inclusive Finance Index, is divided by 100, and a two-way fixed effects regression is conducted. The results are displayed in column (4) of Table 4, where the coefficient of digital inclusive finance remains significantly positive at the 1% level.

Third, the econometric model is replaced. A panel Tobit model is used for regression analysis again, and the results shown in column (4) indicate that the coefficient of digital inclusive finance (DFIIC) is still significantly positive at the 1% level. The above results indicate that the development of digital inclusive finance effectively promotes the enhancement of the new quality productivity development level in the Yangtze River Delta urban agglomeration.

4.3. Endogeneity Test

Considering that the development of new quality productivity may inversely promote the development of digital inclusive finance and that there might be issues with omitted variables, this study employs the Two-Stage Least Squares (2SLS) method to mitigate potential "reverse causality" relationships in the model. Referencing the approach of Huang Qunhui et al. [21], the number of fixed-line telephones per hundred people in each city of the Yangtze River Delta urban agglomeration in 1984 is used as an instrumental variable. Since this variable is cross-sectional data, further borrowing from the methods of Nunn and Qian[22], the number of fixed-line telephones per hundred people is multiplied by the lagged nationwide number of mobile internet users and then logarithmically transformed to obtain the instrumental variable *Iv*. The results are shown in Table 5 below.

From Table 5, it can be seen that the first-stage F-value is 27.91, which is greater than the empirical threshold of 10. According to the test results of the Cragg-Donald Wald F statistic and the Kleibergen-Paap rk LM statistic, this indicates that the model passes the weak instrument identification and under-identification tests, confirming the validity of the instrumental variable *Iv* selected. The second-stage regression results are shown in column (2), where the coefficient of digital inclusive finance is significantly positive, indicating that, after considering endogeneity, the development of digital inclusive finance still promotes the level of new quality

productivity in the 41 cities of the Yangtze River Delta region, further supporting the correctness of the research conclusion.

Table 5. Instrumental Variable Regression Results

	(1) <i>first</i>	(2) <i>second</i>
<i>Iv</i>	0.0962*** (5.36)	
<i>DFIIC</i>		0.1088* (1.79)
First Stage F-value	27.91	
Cragg-Donald Wald F Statistic		134.55 [16.38]
Kleibergen-Paap rk LM Statistic		12.54 {0.0004}
Control Variable	YES	YES
R ²	0.6600	0.5509
Sample Size	476	476

Note: The values in parentheses represent t-values, the values in brackets indicate the Stock-Yogo critical values for weak identification at the 10% level, and the values in braces represent the P-values of the L-M test. Additionally, it should be noted that the regression sample size is reduced due to the absence of 1984 fixed-line telephone data per hundred people for seven cities, including Suqian and Zhoushan.

4.4. Heterogeneity Analysis

4.4.1. Dimensional Heterogeneity Analysis

Considering that the digital inclusive finance index is divided into three dimensions, empirical regressions will be conducted on the development level of new quality productivity in the Yangtze River Delta urban agglomeration from the perspectives of coverage breadth, usage depth, and degree of digitization. The results are shown in Table 6.

From the table, it can be seen that the coefficients for usage depth and degree of digitization are significantly positive at the 1% level, while the coefficient for coverage breadth is not significant. This indicates that the impact of digital inclusive finance on new quality productivity is more concentrated in usage depth and degree of digitization[23]. This is because usage depth reflects the users' deeper engagement with digital inclusive finance, and the development of the degree of digitization provides users with more convenient channels to access more comprehensive financial services, becoming an important driving force for promoting new quality productivity in the Yangtze River Delta urban agglomeration. On the other hand, the coverage breadth of digital finance emphasizes including more groups within the service scope of digital inclusive finance, which limits its potential for growth in the later stages and thus cannot generate more positive impacts on the improvement of new quality productivity in the short term. Additionally, by comparing the sizes of the coefficients for the three dimensions, it can be found that the effect of usage depth on the development of new quality productivity is greater than that of coverage breadth and degree of digitization. This indicates that vigorously expanding the usage depth of inclusive finance is an important pathway through which digital inclusive finance influences new quality productivity.

Table 6. Dimensional Heterogeneity Analysis Regression Results

Variable	(1) <i>CNQP</i>	(2) <i>CNQP</i>	(3) <i>CNQP</i>
<i>Breadth</i>	0.0506 (0.70)		
<i>Udepth</i>		0.4084*** (6.68)	
<i>Dlevel</i>			0.1256*** (3.54)
Control Variable	YES	YES	YES
City/Year	YES/YES	YES/YES	YES/YES
R ²	0.4359	0.4805	0.4488
Sample Size	574	574	574

4.4.2. Regional Heterogeneity Analysis

The Yangtze River Delta urban agglomeration samples are divided by province, specifically Jiangsu Province, Zhejiang Province, and Anhui Province, to conduct baseline regressions. This analysis examines whether the development of digital inclusive finance has heterogeneous effects on new quality productivity across different provinces. The results are shown in Table 7.

Table 7. Regional Heterogeneity Analysis Regression Results

Variable	(1) Jiangsu Province	(2) Zhejiang Province	(3) Anhui Province
<i>DFIIC</i>	0.3253* (1.89)	0.0933* (1.96)	0.1038*** (3.74)
<i>Peo</i>	0.0911* (1.88)	0.0100 (0.84)	-0.0024 (-0.58)
<i>GDPret</i>	0.0575 (1.46)	0.0461*** (3.43)	0.0444*** (5.57)
<i>Indus</i>	0.0007 (0.08)	-0.0013 (-1.13)	-0.0024 (-1.51)
<i>Gov</i>	0.4352* (2.43)	-0.0012 (-0.26)	0.1223*** (4.06)
<i>Fe</i>	0.0183 (0.59)	0.0245*** (3.08)	0.01229*** (4.73)
Control Variable	-1.0682* (-2.52)	-0.3733*** (-3.90)	-0.2721*** (-4.58)
City/Year	YES/YES	YES/YES	YES/YES
R ²	0.6512	0.8779	0.9394
Sample Size	182	154	224

From Table 7, it can be seen that columns (1), (2), and (3) represent the regression results for Jiangsu Province, Zhejiang Province, and Anhui Province, respectively. The regression coefficients for all three provinces are significantly positive, indicating that the development of digital inclusive finance can significantly promote the development of new quality productivity in Jiangsu, Zhejiang, and Anhui Provinces. Comparing the coefficients among the three provinces, it is found that Jiangsu Province has a higher regression coefficient. A one percentage point increase in the level of digital inclusive finance development in Jiangsu Province will lead

to an average increase of 32.53% in new quality productivity, while the corresponding effects for Zhejiang and Anhui Provinces are only 9.33% and 10.38%, respectively. This suggests that Jiangsu Province has a strong economic capacity and takes full advantage of its ample talent reserves. It focuses more on improving a diversified inclusive financial supply system, promoting the broad and multi-level development of inclusive finance, thereby enabling the further development of new quality productivity.

5. Conclusion

Developing new quality productivity is an important leverage and inevitable result of promoting high-quality development in China. Digital inclusive finance, relying on digital technology, continuously promotes the development and innovation of traditional finance, deepens the integration of the real economy and finance, and injects new momentum into the development of new quality productivity. This paper studies the role of digital inclusive finance in promoting the development of new quality productivity. Based on the panel data of 41 cities in the Yangtze River Delta region from 2010 to 2023, and on the foundation of constructing a new quality productivity evaluation index system, the two-way fixed effects model is employed to empirically test the impact of digital inclusive finance on new quality productivity development, as well as issues of heterogeneity, leading to the following conclusions: Firstly, new quality productivity in the Yangtze River Delta region developed rapidly during the examination period, with an average growth rate reaching 9.13%. In 2023, the development level of new quality productivity also reached the highest value during the observation period, at 0.2404. Secondly, digital inclusive finance can significantly promote the development of new quality productivity. When examining the sub-dimensions, it is found that the depth of digital inclusive finance usage and the degree of digitization more significantly enhance the development level of new quality productivity. Even after conducting a series of robustness and endogeneity tests, the results remain robust. Thirdly, during the regional heterogeneity analysis, it was found that the impact of digital inclusive finance on new quality productivity in Jiangsu Province is more pronounced than that in Zhejiang and Anhui Provinces. This paper enriches the research on "digital inclusive finance and new quality productivity" and contributes to the construction of related indicator systems for new quality productivity. Based on the above research conclusions, the following policy recommendations are proposed:

First, deepen the reform of the financial system and actively promote the development of digital inclusive finance to leverage its constructive role in enhancing new quality productivity. Digital inclusive finance, as an extension and development of traditional finance, alleviates the structural problems existing in traditional finance through information technologies like cloud computing and big data. It promotes the aggregation of various advanced production factors towards the enhancement of new quality productivity. Among its sub-dimensions, the depth of usage of digital inclusive finance plays a significant role, indicating that by providing users with more comprehensive financial services and increasing user engagement, it is beneficial for promoting the development of new quality productivity. Additionally, driving deep transformation and upgrading of industries, facilitating economic transformation towards high-quality development, and improving the level of economic development while coordinating new urbanization will contribute to the enhancement of new quality productivity. Second, it is essential to develop mechanisms and systems for new quality productivity suitable to local conditions, optimize the allocation of financial factor resources among regions, and strengthen coordinated development between regions. This includes stimulating the talent reserve potential in Jiangsu Province, highlighting the advantages of digital economic development in Zhejiang Province, integrating and coordinating the industrial resource development in Anhui Province, and emphasizing the leading demonstration role of economic

development in Shanghai. By promoting the Yangtze River Delta region to better harness its role as a source of high-quality development, it will support the development of digital inclusive finance and release the "digital dividend" to enhance the overall regional development of new quality productivity.

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