

# *Financial Technology and New Quality Productive Forces of Enterprises*

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**Abstract:** The field of financial technology (Fintech) is rapidly advancing within the global economy, offering essential support to businesses undergoing digital transformation, enabling data-driven decision-making, and providing access to innovative financial services. New quality productivity, crucial for achieving high-quality development, represents a more integrated and modern form of productivity in the digital age, driving ongoing progress and advancement for businesses. This study utilizes data from Chinese A-share listed companies (2011-2022) to investigate the influence of Fintech on enterprise productivity and its underlying mechanisms. The empirical findings reveal that regional levels of Fintech significantly enhance new quality productivity through technological innovation and optimized allocation of production factors. It is observed that the business environment plays a critical role in moderating the impact of Fintech on new quality productivity. Furthermore, the study highlights Fintech's substantial impact on state-owned enterprises, large-scale firms, and non-high-tech sectors. These findings offer valuable insights for businesses facing transformation challenges. Governments can further empower businesses to maximize Fintech's role in achieving new quality productivity by enhancing the business environment and promoting industry cooperation.

**Keywords:** New quality productivity, Fintech, technological innovation, efficiency of production factor allocation.

## **1. Introduction**

Faced with challenges such as insufficient growth and external uncertainties, enterprises grapple with capital shortages, weak market demand, fierce competition, and global supply chain disruptions, all of which hinder high-quality development. New quality productivity, driven by innovation and marked by enhanced total factor productivity, emphasizes high technology, efficiency, and quality. As technological innovation progresses, traditional production methods and models evolve significantly. This productivity integrates technology and innovates production relations, organizational structures, and management methods, thereby catalyzing progress in the modern economic system.

Finance is the lifeblood of the real economy[1], relying on digital and inclusive finance as capillaries, with financial technology as its core. Leveraging AI, big data, and blockchain, Fintech transforms traditional financial services by enhancing accessibility, efficiency, and system stability.

It reduces transaction costs and facilitates global connectivity for individuals and businesses in financing, financial management, and cross-border transactions. However, Fintech poses risks such as data privacy concerns and the widening digital and financial gap. Strengthening legal frameworks and oversight for data protection is crucial for sustainable social and economic development.

Technological innovation reconfigures production factors, spawns new industries and models, and drives new quality productivity. Fintech emphasizes innovation, optimizes financing, enhances internal control, and boosts capital allocation efficiency for innovation. However, over-reliance on technology may pose risks, potentially impeding enterprise productivity development.

This study examines how financial technology impacts enterprise productivity, providing theoretical insights and empirical validation. It enhances the understanding of new quality productive forces at the enterprise level and addresses gaps in the theory concerning financial technology's influence. By integrating Fintech into productivity theory within a Marxist political economy framework, it adapts to the high-tech era, validating Fintech's role in enhancing enterprise operations and management. Practical recommendations are also provided for contemporary enterprises striving for improvement.

## **2. Literature Review**

Fintech leverages big data, AI, and blockchain to transform corporate operations. Research highlights its role in overcoming financing constraints, cutting transaction costs, and enhancing data sharing[2]. It boosts ESG performance through green tech innovation[3] and optimizes financial structures by reducing debt costs[4]. Fintech also enhances transparency, internal control, and market efficiency, thus improving investment decisions and overall operational efficiency, ensuring sustainable competitive advantages for enterprises.

Recent studies have highlighted that new quality productivity in enterprises integrates quality, efficiency, and capability changes, significantly enhancing total factor productivity. Existing research has explored the path of enabling new quality productivity in enterprises from multiple perspectives, mainly divided into enterprises' internal and external environments. (1) Internal environment of enterprises: ESG performance[5], digital transformation[6] are regarded as factors that significantly promote the new quality productivity of enterprises. (2) External environment of enterprises :The government's digital governance[7] and the improvement of the business environment[8] have also been proven to empower the new quality productivity of enterprises.

In summary, current studies have explored the determinants of financial technology and new quality productivity from various perspectives, with the majority examining financial technology within an external context. However, no research has systematically explored the effect of financial technology development on the new quality productivity of corporations. This paper's potential frontier contributions lie in systematically examining the connection between financial technology and productivity, revealing the influence of financial technology on enterprise productivity through theoretical and empirical research. Financial technology is regarded as an external environment integrated into the factor endowment of productivity. Its role in optimizing resource allocation and enhancing the competitiveness of enterprises during digital transformation is deeply explored. Policy recommendations are also offered for the government to promote the development of financial technology.

## **3. Mechanism Analysis and Hypothesis Proposal**

Regional financial technology levels enable enterprises to receive more efficient and innovative financial services and technical support. This article believes that financial technology affects the growth of new quality productivity of enterprises by promoting their technological innovation and

optimizing the allocation of production factors. Specifically, financial technology provides enterprises with diversified financing channels, accurately assesses enterprise credit risks through big data and AI technology, and provides small and micro enterprises with lower loan interest rates and higher financing quotas; by reducing commodity trading links and improving exchange methods, financial institutions can improve the transaction efficiency of enterprises and drive the innovation and production efficiency of enterprises[9]. Financial technology makes information processing more transparent and efficient, reduces information costs, and thus helps enterprises reduce costs and increase efficiency, increase investment in technology research and development, and improve innovation capabilities. Existing studies have shown that financial technology can significantly improve the breakthrough and conventional innovation of enterprises, especially for breakthrough innovation [10]. Enterprise technological innovation is the key driving force for the improvement of new quality productivity. Therefore, the technological breakthroughs brought about by financial technology are an important path to the birth of new quality productivity.

Fintech also empowers new quality productivity by optimizing the allocation of production factors in enterprises. From the labor perspective, Fintech enhances employees' technical literacy and overall skills and fosters the mastery of digital tools and technologies through online training and digital learning platforms. The application of AI and automation technology improves collaboration efficiency between employees and intelligent robots, thereby enhancing productivity and operational efficiency. From the perspective of production tools, intelligent business tools and management systems monitor and optimize enterprise operating processes in real-time, improve production efficiency, respond swiftly to market changes and customer needs, and enhance competitiveness. Additionally, Fintech promotes the digital transformation of financial management; online payment platforms and intelligent settlement systems simplify transaction processes, reduce transaction costs and risks, and accelerate business development. In summary, the improvement of regional Fintech levels has driven the transformation and upgrading of enterprise labor and production tools, optimized capital management and liquidity, and established the conditions for the emergence of new quality productivity. Based on this, the following hypotheses are proposed:

Hypothesis 1 The development of Fintech has a significant positive influence on the new quality productivity of enterprises.

Hypothesis 2 The development of Fintech promotes the new quality productivity of enterprises by accelerating their technological innovation.

Hypothesis 3 The development of Fintech accelerates the development of new quality productivity of enterprises by optimizing the allocation of enterprise factors.

Furthermore, this article posits that the business environment has a regulatory effect on the role of financial technology in enhancing new quality productivity. Characteristics of a superior business environment include high government efficiency, availability of high-quality talent, healthy competition among enterprises, and strong market innovation vitality. In a superior business environment, financial technology can streamline approval processes, provide accurate market data and preferential financing channels, optimize financial management and innovation, and yield better benefits for the development of new quality productive forces in enterprises. Conversely, a poor business environment characterized by inefficient government and a lack of high-skilled human resources can limit the integration of financial technology into enterprises, hindering technological application and innovation progress. Therefore, the following hypothesis is proposed:

Hypothesis 4 The business environment positively regulates the role of financial technology in promoting the development of new quality productivity of enterprises.

#### 4. Variable Setting and Model Construction

The paper begins by selecting China's A-share listed companies from 2011 to 2022 as the initial sample, then proceeds to conduct the following analyses: (1) Eliminate ST, \*ST and delisted enterprise samples to ensure the operating stability of the sample enterprises; (2) Considering the differences in accounting standards, exclude enterprise samples in the financial industry; (3) Perform tailing processing on all continuous variables at the 1% quantile to mitigate the impact of outliers.

Explained variable: new quality productivity of enterprise(Npro). This paper cites the method of Song Jia et al. and constructs a new quality productivity index system from the two dimensions of labor and production tools founded on the two-factor theory of productivity[4].

Explanatory variable: Fintech development level. This article follows the approach of Song Min et al. to count the number of Fintech companies in prefecture-level cities each year and use this to measure the level of Fintech development in the region. The larger the value, the higher the level of Fintech development [11].

Intermediary variables:(1) Enterprise technological innovation (Patent). This paper uses R&D investment and the number of patents to measure the level of enterprise technological innovation. Considering the right-skewed and fat-tailed characteristics of the number of patents, the number of annual patents of enterprises is added by 1 and then logarithmized. (2) Enterprise factor allocation optimization (Alloca). This paper makes use of the approach of Ni Tingting et al., estimates the reasonable investment level of enterprises this year and calculates overinvestment to measure enterprise investment efficiency ; and measures labor allocation efficiency through enterprise scale, capital intensity, enterprise growth, etc [12].

Moderating variable :business environment (Envir), the data uses the "China City Business Environment Assessment Database 2023" completed by Professor Zhang Sanbao and others, which comprehensively measures the business environment level of each prefecture-level city from four dimensions:government environment, market environment, legal environment and cultural environment.

Control variables:Following the research of Ju Xiaosheng et al., this paper controls micro-level characteristics such as enterprise size (Size), enterprise age (Age), return on assets (ROA), cash flow (Cashflow), growth (Growth), and macro-level characteristics such as regional economic development (GDP) and population size (Popusize). The detailed variable data structure can be found in Table 1 Descriptive statistics[13].

Table 1: Descriptive statistics results

variable	Sample size	Mean	Standard Deviation	Max	Min
Npro1000	33327	517.84	525.40	3.95	80449.27
Fintech	33376	53.16	70.09	0.00	213.00
GDP	33156	14.09	15.38	1.00	189.00
Popusize	32214	85.01	66.68	1.00	341.60
Size	33376	22.23	1.36	15.57	28.63
Age	33376	2.92	0.33	0.69	4.17
ROA*10	33376	38.77	18.80	-91.92	207.64
Cashflow*100	33376	4.42	10.08	-1021.63	116.96
Growth	33376	496.48	7414.98	-99.97	135000.00

This paper constructs the following econometric model to examine how financial technology influences the new quality productivity of enterprises :

$$Npro_{it} = \alpha_0 + \alpha_1 Fintech_{it} + \sum \omega_k Control_{kit} + \mu_i + \varphi_t + \varepsilon_{it} \quad (1)$$

In formula (1), the explained variable represents the enterprise's new quality productivity of enterprise i in year t; represents the Fintech index pertaining to the city where the enterprise is situated. represents a series of control variables reflecting enterprise and regional characteristics, is the enterprise fixed effect, is the time fixed effect, and is the random error term.

To further analyze its mechanism of action, two mediating variables are introduced to test the mechanism of financial technology on the new quality productivity of enterprises, and the following econometric model is constructed :

$$Mediator_{jit} = \beta_0 + \beta_1 Fintech_{it} + \sum \omega_k Control_{kit} + \mu_i + \varphi_t + \varepsilon_{it} \quad (2)$$

Among them, j=1, 2 represents the number of mediating variables, represents the mediating variable, and this paper selects enterprise technological innovation (Patent) and enterprise factor allocation optimization (Alloca) ; the meanings of other variables are the same as in formula (1).

## 5. Analysis of Empirical Results

### 5.1. Benchmark regression results

Table 2 reports the regression outcomes under the fixed effects of year and enterprise. Among them, column (1) shows the direct regression results between the explanatory variable and the explained variable, columns (2) and (3) show the regression results after controlling the fixed effects and adding the control variables, respectively, and column (4) shows the regression results after controlling the fixed effects of year and enterprise and adding all control variables. In all regressions, the estimated coefficient of the explanatory variable Fintech is positive at the 1% significance level, indicating that the level of financial technology significantly promotes the development of the new quality productivity of enterprises, verifying hypothesis H1. The estimated coefficient of the explanatory variable in column (4) is 0.62, indicating that for every 1 unit increase in the local financial technology level, the enterprise's new quality productivity index will increase by 0.62 units on average.

The association between the control variables in the regression results of column (4) and the enterprise innovation behaviour also basically meets the theoretical expectations. Among them, the coefficient of the economic development level (GDP) of the prefecture-level city is significantly positive, indicating that economically developed regions are conducive to the blossoming of new quality productivity of enterprises; the coefficients of enterprise size (Size), enterprise age (Age) and cash flow (Cashflow) are significantly positive, indicating that enterprises with large scale, long operating years and sufficient cash flow have a high level of development of new quality productivity.

Table 2: Benchmark regression

	(1) Npro	(2) Npro	( 3 ) Npro	( 4 ) Npro
Fintech	0.82 ** (2.01)	0.512 *** (5.62)	0.623 *** (6.66)	0.620 *** (6.27)
GDP			0.224 ** (2.49)	0.229 ** (2.54)
Popusize			0.378 (1.44)	0.363 (1.38)
Size			11.33 *** (6.29)	11.58 *** (6.38)
Age			142.1 ***	161.9 ***

Table 2: (continued).

			(10.78)	(12.00)
ROA			-19.30 ***	-19.17 ***
			(-4.51)	(-4.48)
Cashflow			58.25 ***	58.59 ***
			(6.56)	(6.60)
Growth			0.594	0.557
			(0.56)	(0.55)
_cons	513.4 ***	373.2 ***	-194.9 ***	-298.7 ***
	(142.16)	(64.03)	(-3.67)	(-5.85)
Firm fixed effects	NO	YES	NO	YES
Year fixed effects	NO	YES	YES	YES
N	33327	33327	32140	32140
R <sup>2</sup>	0.030	0.161	0.172	0.172
F	111.06	463.2	233.4	305.9

Note: The data in brackets are standard errors, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The same below.

## 5.2. Robustness and endogeneity analysis

When studying the impact of financial technology on the new quality productivity of enterprises, the main endogenous problem that this paper may face is mainly sample self-selection bias, that is, the tendency of enterprises to choose to participate in the application of financial technology on their own may be related to their level of new quality productivity. This bias will lead to bias in the coefficients estimating the impact of financial technology on new quality productivity. This paper may have the problem of omitted variables, which leads to bias in the estimated coefficients of explanatory variables, such as the legal and policy environment, enterprise management quality, etc. However, this omitted variable is related to the explanatory and explained variables. To avoid bias in the estimated coefficients of the explanatory variable, the omitted variable cannot be directly added, but the instrumental variable method must be used.

As a macro variable, the regional Fintech development level is less affected by the innovation behaviour of individual enterprises, but measurement errors or omitted variables may still cause endogeneity problems. Referring to the ideas of Wu Fei et al., this paper selects the interaction term between the number of Internet broadband users per year and the spherical distance from the enterprise location to Hangzhou as an instrumental variable (Fintech\_IV) [14]. On the one hand, Hangzhou is the first city in the country in terms of digital economy and Fintech development. The spherical distance between various regions and Hangzhou is closely related to its Fintech development, and often has no obvious correlation with enterprise production decisions. Generally, the closer the geographical distance (i.e., the smaller the value), the better the Fintech development. Table 3, column (1) shows the regression results of the instrumental variables. After considering the possible endogeneity between Fintech and enterprise new quality productivity, Fintech development can still significantly boost the growth of enterprise new quality productivity, which is completely consistent with the previous results.

This paper uses a variety of methods to analyze the robustness of the benchmark regression conclusions, as shown in columns (2)-(4) of Table 3. (1) Replace the explained variable. The core sign of new quality productivity is the substantial improvement of total factor productivity. Therefore, this paper uses the total factor productivity change rate (Npro\_Sub) to substitute the explained variable. The results shown in column (2) show that financial technology has a considerable positive



result on the change rate of total factor productivity of enterprises; 2. One-period lagged explanatory variables. Considering that there may be a lag effect between the level of financial technology and the new quality productivity of enterprises, this paper incorporates the one-period lagged term of the independent variable (L.Fintech) into the model for testing. The results in column (3) show that there is no significant change; (3)Sample adjustment. In the sample of the benchmark regression, the COVID-19 pandemic in 2020 and after that had a huge impact on the development of enterprises. To avoid the uncertainty of the results caused by the effect of external events, this study excluded the sample data from 2020 to 2022. The results shown in column (4) did not change significantly.

Table 3: Robustness and endogeneity analysis

	(1) Npro	( 2 ) Npro_ Sub	( 3 ) Npro	( 4 ) Npro
Fintech		1.208 *** (2.58)		0.395 *** (8.05)
Fintech_IV	-1.610 ** (-1.99)			
L.Fintech			0.576 *** (5.37)	
CONTROLS	YES	YES	YES	YES
_cons	650.27 *** ( 19.18 )	-4612.0 *** (-17.29)	-203.2 *** (-3.36)	343.5 *** (11.54)
Firm fixed effects	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES
N	32134	25826	28006	21874
R 2	0.4566	0.042	0.148	0.083
F	138.22	53.94	233.4	124.4

### 5.3. Heterogeneity analysis

The previous article analyzed whether the level of financial technology can promote enterprises to improve new quality productivity, and conducted robustness and endogeneity analysis to further prove the point. The following study will analyze from the perspective of enterprise heterogeneity, and conduct group regression on enterprises of different enterprise nature, enterprise scale and enterprise type (whether it is a high-tech enterprise). The results are shown in Table 4.

Nature of enterprise. State-owned and non-state-owned enterprises have apparent distinctions in social responsibility, political connections, governance structure, etc. Therefore, this paper conducts a separate regression analysis of the two categories. The results are shown in columns (1)-(2). The estimated coefficient of the level of financial technology is significantly positive in the state-owned enterprise sample, but not significant in non-state-owned enterprises. The possible reason is that state-owned enterprises are usually able to quickly adopt advanced financial technology tools to improve production efficiency and reduce costs. In addition, their stable governance structure and centralized decision-making are also conducive to integrating efficient and applied financial technology innovation, thus showing a significant positive impact in the mechanism of improving new quality productivity.

Enterprise size. Large enterprises and small and medium-sized enterprises have significant differences in resources and funds, market competition, technology application and integration capabilities. This paper employs the median natural logarithm of annual total assets of enterprises as the criterion for grouping in regression analysis. The results are shown in columns (3)-(4). The

estimated coefficient of the level of financial technology is significantly positive for the development of new quality productivity of larger enterprises, but not significant for smaller enterprises. The possible reason is that large enterprises have abundant resources and capital and higher credit ratings, and can make full use of financial technology to optimize resource allocation, reduce financing constraints, and promote technological innovation.

Enterprise type. This paper uses whether or not a high-tech enterprise is used as a grouping standard to conduct regression analysis on the samples of listed companies. The results are shown in columns (5)-(6). It is found that the estimated coefficient of the financial technology level of high-tech enterprises is insignificant, while that of non-high-tech enterprises is significant and positive. The possible reason is that non-high-tech enterprises lag in technology application and digital transformation, and rely more on regional financial technology services to improve efficiency and reduce costs, thereby maintaining competitiveness.

Table 4: Heterogeneity analysis

	(1) Npro State- owned	(2) Npro Non-state owned	(3) Npro Larger scale	(4) Npro Smaller scale	(5) Npro High-tech	(6) Npro Non-tech
Fintech	1.393*** (8.31)	-0.122 (-0.89)	0.437*** (3.53)	0.259 (1.54)	0.0402 (0.24)	0.531*** (3.99)
CONTROLS	YES	YES	YES	YES	YES	YES
_cons	-642.7*** (-6.43)	-8.831 (-0.14)	236.4*** (2.81)	-530.3*** (-5.77)	-148.4** (-2.25)	136.7* (1.70)
Firm fixed effects	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES
N	11440	20700	16011	16129	18891	13249
R <sup>2</sup>	0.137	0.205	0.143	0.178	0.275	0.056
F	84.50	237.3	119.6	147.7	321.9	36.39

#### 5.4. Analysis of mechanisms and regulatory effects

According to the theoretical analysis in the earlier article, regional financial technology development has a positive influence on the development of new quality productivity of enterprises, which is specifically manifested in promoting corporate technological innovation and optimizing corporate factor allocation. This article verifies this assumption.

For enterprise technological innovation (Patent), this paper uses the natural logarithm of the sum of patents independently obtained by the enterprise in the year plus one to measure it. The regression findings are presented in the first column of Table 5. Among them, technological innovation can be divided into breakthrough (PatentA) and conventional (PatentB). The regression results are shown in columns (2) and (3) of Table 5. A comprehensive comparison of the explanatory variable coefficients of columns (1)-(3) shows that financial technology exerts a notably positive influence on technological innovation within enterprises, with a particularly pronounced effect on breakthrough innovations. Technological innovation enables enterprise technology to move towards digitalization, digital intelligence, and even digital governance, and promotes productivity from relying on resource input to relying on technological breakthroughs, thereby promoting the development of enterprise productivity, verifying hypothesis 2.

For the efficiency of enterprise factor allocation (Alloca), this paper mainly considers the enterprise investment efficiency and labour allocation efficiency in measuring. The regression results



are shown in Table 5 (4). The coefficient of the financial technology level is substantially positive, indicating that the regional financial technology level significantly enhances the efficiency of enterprise factor allocation. In corporate governance, the same production factors can bring more advanced productivity to enterprises in the optimization of organizational structure and resource allocation, which verifies hypothesis 3.

Table 4, Columns (5)-(6) report the regression results of the moderating effect of the business environment. It can be seen that the coefficient of the interaction term (Fintech\_Envir) between the business environment and the level of financial technology in column (6) is 0.130, which is significantly positive at the 5% level, indicating that the business environment does not directly affect the new quality productivity of enterprises, but regulates the role of regional financial technology level in promoting the new quality productivity of enterprises. Therefore, Hypothesis 4 is supported: the better the business environment in which the enterprise is located, the more obvious the regional financial technology level's role in improving the enterprise's new quality productivity.

Table 5: mechanism and moderating effect

	(1) Patent	(2) Patent A	(3) Patent B	(4) Alloca	(5) Npro1000	(6) Npro1000
Fintech	0.268*** (4.65)	0.317*** (6.50)	0.227*** (3.71)	0.715*** (7.91)	0.581*** (6.29)	0.566*** (6.11)
Envir					-2.275 (-0.29)	1.568 (0.20)
Fintech_Envir						0.130** (2.48)
CONTROLS	YES	YES	YES	YES	YES	YES
_cons	-782.2*** (-26.29)	-682.2*** (-27.06)	-780.4*** (-24.73)	-309.8*** (-6.64)	-276.6*** (-5.56)	-277.0*** (-5.57)
Firm fixed effects	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES
N	32175	32175	32175	32174	33040	33040
R <sup>2</sup>	0.254	0.169	0.226	0.038	0.169	0.169
F	501.1	298.9	429.9	57.99	325.3	308.6

## 6. Conclusion and Recommendations

Based on the above analysis, this study investigates the impact of regional financial technology growth on the new quality productivity of enterprises and its underlying mechanisms through detailed empirical analysis. The primary conclusions are as follows:

The benchmark regression results demonstrate that financial technology significantly contributes to developing new quality productivity in enterprises, confirming hypothesis H1. This conclusion remains robust even after accounting for annual and enterprise fixed effects, underscoring the pivotal role of financial technology in enhancing enterprise productivity. The paper further validates the reliability of this conclusion through robustness and endogeneity analyses. Using the instrumental variable method, it confirms the impact of financial technology on new quality productivity, with consistent results across various model corrections and sample adjustments. Heterogeneity analysis reveals that financial technology affects different types of enterprises variably, highlighting that state-owned enterprises, larger enterprises, and non-high-tech enterprises are better positioned to leverage

financial technology for enhancing new quality productivity. Mechanism analysis shows that regional financial technology improves new quality productivity by promoting technological innovation and optimizing enterprise factor allocation. Furthermore, financial technology significantly influences breakthrough innovation and facilitates the transformation of productivity into digitalization and intelligence, thus confirming hypotheses H2 and H3. The moderating effect analysis highlights the influence of the business environment on regional financial technology, with a favorable business environment further enhancing the impact of financial technology on promoting new quality enterprise productivity, supporting hypothesis H4.

In summary, this study provides an in-depth analysis of how FinTech promotes the development of enterprise productivity through technological innovation, factor allocation optimization, and business environment regulation. The policy recommendations and strategic guidance for policymakers and enterprises are as follows:

(1) Increasing policy support and investment in financial technology by state-owned enterprises is crucial for their digital transformation and productivity. Government backing can help companies adopt advanced tools quickly, enhancing efficiency and competitiveness.

(2) For smaller, non-high-tech companies, the government and financial institutions can provide technical consultation, financial support, and training for digital transformation, including customized technology solutions and support for innovative investment in data science, artificial intelligence, and blockchain.

(3) The government should also simplify administrative procedures, reduce market barriers, and improve the business environment to stimulate innovation in financial technology.

## References

- [1] Wang Yiming. *Great changes in the past century, high-quality development and building a new development pattern*[J]. *Management World*, 2020, 36(12):1-13.
- [2] Xiang Hailing, Ding Zijia, Xu Siyang, et al. *Financial technology and enterprise digital transformation*[J]. *China Soft Science*, 2023(05):207-215.
- [3] Sun Mingrui, Ma Rong, Ma Wenjie. *Financial technology and corporate ESG performance* [J/OL]. *Financial Research*, 1-17 [2024-07-25].
- [4] Cheng Yue, Yu Mengfei, Li Bo. *How does financial technology promote the optimization of corporate capital structure*[J]. *Financial Regulation Research*, 2024, (02):77-97.
- [5] Song Jia, Zhang Jinchang, Pan Yi. *Research on the impact of ESG development on the new quality productivity of enterprises: empirical evidence from Chinese A-share listed companies*[J]. *Contemporary Economic Management*, 2024, 46(06):1-11.
- [6] Zhang Huizhi, Li Xiyao. *The impact of digital transformation on the new quality productivity of enterprises*[J]. *Industrial Technology and Economics*, 2024, 43(06):12-19.
- [7] Zhao Bin, Wang Keliang, Liu Jiamin. *Government digital governance and enterprise new quality productivity: Evidence based on the national pilot policy of information benefiting the people* [J/OL]. *E-Government*:1-12 [2024-07-05].
- [8] Liu Deyu, Wang Kefan. *Research on the impact mechanism of business environment on enterprise's new quality productivity*[J/OL]. *Finance and Economics*:1-10[2024-07-05].
- [9] Gong Yuhua, Yang Kefan, Yuan Li. *How does financial technology affect corporate technological innovation?* [J]. *Economic System Reform*, 2024(03):191-200.
- [10] He Yong, Wu Shanshan. *Financial technology and dual innovation of manufacturing enterprises: a study on overall impact, mechanism identification and effect differences*[J]. *Journal of Harbin University of Commerce (Social Science Edition)*, 2023(04):30-45.
- [11] Song Min, Zhou Peng, Si Haitao. *Financial technology and enterprise total factor productivity: from the perspective of "empowerment" and credit allocation*[J]. *China Industrial Economy*, 2021(04):138-155.
- [12] Ni Tingting, Wang Yuetang. *Regional administrative integration, factor marketization and enterprise resource allocation efficiency*[J]. *Quantitative and Technical Economics Research*, 2022, 39(11):136-156.
- [13] Ju Xiaosheng, Lu Di, Yu Yihua. *Financing constraints, working capital management and corporate innovation sustainability*[J]. *Economic Research*, 2013, 48(01):4-16.

- [14] Wu Fei, Ding Zijia, Che Dexin. *Financial technology, marketization degree and enterprise digital transformation*[J]. *Securities Market Herald*, 2023, (11):15-31.