

Research on Digital Fiscal Innovation for Optimizing Regional Tax System and Promoting High-Quality Economic Development

Huiling Chen^{1,*} and Chunguang Ma²

¹ Ningbo University of Finance and Economics, Ningbo, Zhejiang, 315175, China

² Zhejiang Marine Development Think Tank Alliance, Ningbo, Zhejiang, 315175, China

Corresponding authors: (e-mail: 13967898669@163.com).

Abstract Currently, the global economy is in a critical period of digital transformation, and governments have been pushing forward the reform of the fiscal and taxation system to adapt to the new development pattern. Based on the panel data of 30 provinces in China from 2014 to 2024, this paper empirically investigates the impact mechanism of digital fiscal and tax innovations on optimizing the regional tax system and promoting the high-quality development of the economy by applying the Linked Panel Equation Model (LPEM), the mediation effect test, and spatial econometric methods. The study found that: digital fiscal innovation is significantly and positively related to economic high-quality development, with a correlation coefficient of 0.205; the regression coefficient of governmental fiscal expenditure preference on economic high-quality development reaches 10.633, and the regression coefficient of tax effort is 0.114, both of which are significant at the 1 percent level; The Sobel test and Bootstrap method confirm that the regional tax system plays a mediating role in the process of digitalized fiscal innovation affecting the high-quality development of the economy; the spatial autocorrelation test shows that the Moran's I index of high-quality development of the economy in 2024 is 0.066, which indicates that there is a significant spatial positive correlation. This study provides empirical support for deepening the reform of fiscal and taxation system and promoting regional coordinated development.

Index Terms Digital fiscal innovation, regional tax system, high-quality economic development, mediation effect, spatial autocorrelation, fiscal expenditure preference

I. Introduction

At present, the regional tax system to a certain extent restricts the normal development of the regional economy [1]. Regional tax system exists in the low legal level, property retention tax regulation is not effective and other issues, "tax reform" is pushed to the forefront of the times [2]. "Tax reform" is an important part of the reform of the financial and taxation system and even economic system reform, but also the cornerstone of the political system reform and wind vane [3]. In particular, the new economic forms emerge one after another, the taxpayer's business activities are increasingly complex, cross-region, cross-industry business is increasing rapidly, the original obsolete regional tax system, the update speed is extremely slow, the national unified model of the rough system, has become increasingly unable to adapt to the needs of the new situation [4]-[6].

In the era of digital economy, the construction of digital fiscal ecosystem has become one of the important grips to deepen the reform of the fiscal system [7]. In this context, promoting the digital and intellectual transformation in the field of fiscal and taxation is not only a key means to enhance the national governance capacity and the level of governance modernization, but also an inevitable choice to comply with the rapid development of information technology and promote the modernization of fiscal and taxation management [8], [9]. In the process of the rapid development of the fiscal and tax digitalization system, the fiscal and tax shared service model also ushered in the innovation opportunity. The traditional fiscal management mode often faces bottlenecks such as data dispersion, fiscal and tax business fragmentation, and low efficiency, which is difficult to meet the needs of modern enterprise fiscal and tax management for cost control, real-time data analysis, and risk monitoring [10], [11]. The application of digital taxation system provides effective support for realizing the integration of industry finance and taxation. Through the integrated data platform and intelligent management process, the shared service of finance and taxation not only gets qualitative improvement in efficiency, but also provides solid data guarantee for compliance risk prevention and control and strategic decision-making [12]-[14].

This study constructs an analytical framework of digital fiscal innovation, regional tax system and economic high-quality development from the perspective of system theory. First, through descriptive statistics and correlation

analysis, it initially explores the correlation characteristics among the variables; second, it applies the benchmark regression model to test the direct effect of digital fiscal innovation on economic high-quality development; again, it adopts the mediation effect model to verify the conduction role of regional tax system; finally, it analyzes the spatial correlation characteristics of digital fiscal innovation and economic high-quality development through spatial measurement methods, revealing the inter-regional. Finally, the spatial correlation characteristics of digital tax innovation and economic high-quality development are analyzed by spatial measurement method to reveal the mutual influence mechanism between regions.

II. Research Design

II. A. Description of variables

II. A. 1) Explained Variables

In this paper, economic high-quality development (referred to as “Quality”) is taken as an explanatory variable. High-quality economic development encompasses all aspects of social life and is a huge system, so it is measured by taking into account the connotative characteristics and contemporary significance of high-quality economic development.

II. A. 2) Explanatory variables

This paper takes digitalized fiscal innovation (DFT) as an explanatory variable. Digitalized Fiscal Innovation (DFT) has become an important driver of high-quality economic development.

II. A. 3) Other variables

The regional tax system (RTS) is chosen as the mediating variable, which can be specifically subdivided into two variables, fiscal expenditure preference (Pes) and revenue preference, i.e., tax effort (Teffort) of each regional government, which are measured by the ratio of livelihood expenditure and tax effort indicators, respectively. Tax effort is measured by the ratio of actual tax revenues to expected tax revenues, and the gap between actual and expected indicates the degree of importance the government attaches to tax revenues. The specific calculation formula is:

$$Pes = \frac{\text{Public budget expenditure on livelihoods}}{\text{Local public budget expenditure}} \quad (1)$$

Among them, livelihood expenditure is the sum of education expenditure, science and technology expenditure, culture, sports and media expenditure, social security and employment expenditure, healthcare expenditure and environmental protection expenditure.

The method of calculating the tax effort is as follows:

$$Teffort = tax / tax^* \quad (2)$$

where TAX is the share of actual local tax revenue in local GDP, TAX* is the share of expected local tax revenue in local GDP, and tax effort is the ratio of the two. TAX* is measured using the Tax Bing method, and with reference to the existing literature, a regression equation is constructed for prediction using variables that may affect tax revenue, specifically the structure of the secondary industry (Ind2), tertiary industry organization (Ind3), population density (Pop), and degree of openness to the outside world (Open).

In addition to the mediating variables, the following indicators were selected as control variables. Industrial structure (Ind), measured using the share of tertiary industry, which may have an impact on livelihood-based expenditures and government revenue decisions. Human resources (Hr), measured using the average number of students enrolled in higher education. Urbanization level (Urb), measured using the urbanization rate, the development of urbanization will affect the government's revenue and expenditure preferences, the higher the degree of urbanization, the better the development of the city, and the higher the quality of economic growth; Population density (Pop), in general, the higher the population density, the larger the population, the heavier the financial burden, which will lead the local government to reduce the livelihood expenditures, and increase the economic expenditures to make up for the financial gap, while increasing tax efforts; the degree of openness to the outside world (Open) is calculated using the ratio of the total import and export amount to GDP after exchange rate conversion, the more open the economy is, the more fiscal revenues may be obtained, thus having an impact on the government's preference for revenue and expenditure; the level of financial development (Fin) is measured using the ratio of the loan balance of financial institutions to GDP. The higher the level of financial development, the higher the quality of economic development.

II. B. Data sources

Considering the availability of data, the indicator data of 30 provinces (municipalities directly under the central government and autonomous regions) in China for the years 2014-2024 were finally selected. The data are obtained from the EPS database, China Statistical Yearbook, China Financial Statistical Yearbook, China Science and Technology Statistical Yearbook, China High-Tech Statistical Yearbook, China Industrial Statistical Yearbook and other yearbooks, as well as statistical yearbooks of provinces (municipalities directly under the central government and autonomous regions). In addition, the missing data are made up by interpolation, and some of the data are logarithmized to eliminate the influence of heteroscedasticity on the results to a certain extent and ensure the stability of the data.

II. C. Modeling

According to the above theoretical assumptions, the vertical fiscal imbalance can directly affect the high-quality development of the economy, and at the same time, it can also use the mediating variables to produce indirect effects. Therefore, in order to study the mechanism of the role of the three, the use of joint panel equation model can not only visualize the direct and indirect paths of the fiscal vertical imbalance on the high-quality development of the economy, but also more conducive to the elimination of endogeneity problems than a single-panel model. The equation model is as follows:

$$Quality_{it} = C_1 + \alpha_1 DFT_{it} + \alpha_2 PES_{it} / Teffort_{it} + \alpha_3 Control_{it} + U_{it} + V_{it} + \varepsilon_{it} \quad (3)$$

$$PES_{it} / Teffort_{it} = C_2 + \beta_1 DFT_{it} + \beta_2 PES_{it} / Teffort_{it} + \beta_3 Control_{it} + U_{it} + V_{it} + \varepsilon_{it} \quad (4)$$

III. Analysis of empirical results

In this paper, we will combine relevant tax science and economics knowledge and use correlation, benchmark regression, mediation effect and spatial correlation test to analyze the influence mechanism of digitalized fiscal innovation on economic high-quality development.

III. A. Descriptive statistics

From the mean, minimum, median, maximum, standard deviation of the above mentioned variables for descriptive statistical analysis, the final statistical results obtained as shown in Table 1. As can be seen from the table, in China's economic high-quality development data spanning a large, maximum value of 4.388, minimum value of 0, which indicates that the level of high-quality development of China's provinces and regions of the economy there are large differences in the level of high-quality development, and the average value of 1.487, which indicates that China's economic high-quality development and there is still a great deal of room for improvement. In terms of digital tax innovation, the maximum value is 0.088, the minimum value is 0, and the average value is 0.014, which indicates that there is a big difference in the level of digital tax innovation among different provinces and regions in China. The maximum value is 20.13, the minimum value is 12.65, and the average value is 16.77, which indicates that there is a big gap between the government's fiscal spending preferences in different provinces and regions.

Table 1: Descriptive statistic

Variable name	Mean	Minimum value	Median	Maximum value	Standard deviation
Quality	1.487	0	1.39	4.388	1.297
DFT	0.014	0	0.021	0.088	0.003
Pes	16.77	12.65	16.73	20.13	1.401
Teffort	21.266	18.86	21.197	24.38	1.168
Ind	0.379	0.082	0.353	0.764	0.18
Hr	0.115	0.004	0.124	0.419	0.113
Urb	0.229	0.007	0.131	0.581	0.158
Fin	0.125	0	0.106	0.436	0.096
Pop	2.015	0.924	1.669	6.686	1.044
Open	0.332	0.088	0.328	0.684	0.096

III. B. Correlation analysis

Before conducting the baseline regression, a preliminary Pearson correlation test was conducted for each variable involved in the model [15]. The results of the correlation test are shown in Table 2. As can be seen from the table, high quality economic development and digital fiscal innovation are significantly positively correlated at the 1% level

and the correlation coefficient is 0.205, which indicates that there is an incentive effect between the two. High-quality economic development is significantly and positively correlated with the preference of fiscal expenditure and tax effort of regional governments at the 1% level with the correlation coefficients of 0.228 and 0.148, respectively.

Table 2: Analysis of relationship

Variable	DIG	FS	TAX	SCALE	LEV	ROE	FAR
Quality	1	-	-	-	-	-	-
DFT	0.205***	1	-	-	-	-	-
Pes	0.228***	-0.045*	1	-	-	-	-
Teffort	0.148***	-0.277***	0.674***	1	-	-	-
Ind	0.077***	-0.142***	0.268***	0.578***	1	-	-
Hr	0.026	-0.026	0.421***	0.232***	0.066***	1	-
Urb	-0.212***	-0.025	-0.025	0.011	0.042	-0.183***	1
Fin	-0.148***	-0.048***	-0.016	0.126***	0.224***	0.075***	-0.118***
Pop	0.077***	0.115***	-0.043	-0.168***	-0.221***	0.272***	-0.022
Open	-0.126***	-0.089***	0.118***	-0.073***	-0.106***	0.005	0.023

In order to exclude the possibility of multicollinearity between the variables to ensure the reliability of the results of the subsequent empirical analysis, this paper also further tested the variance inflation factor (VIF) and tolerance (1/VIF), and the results of the VIF test are shown in Table 3. The results show that the variance inflation factor (VIF) of each variable is much smaller than the discriminant standard of 10, and the average VIF value is 1.62, so the possibility of multicollinearity between the variables is extremely low, and the next step of benchmark regression analysis can be carried out [16].

Table 3: Multicollinearity test

Variable	VIF	1/VIF
Pes	2.97	0.337
Teffort	2.32	0.431
Ind	1.56	0.641
Hr	1.43	0.699
Urb	1.21	0.826
Fin	1.16	0.862
Pop	1.17	0.855
Open	1.14	0.877
Mean VIF	1.62	

III. C. Analysis of baseline regression results

Benchmark regression analysis of the implementation of digital fiscal innovation affecting economic high-quality development, the results are shown in Table 4. The regression coefficient of the government's fiscal spending preference on economic high-quality development in each region in column (1) is 10.633, which is significant at 1% level, indicating that the government's fiscal spending preference has a positive incentive effect on economic high-quality development. The government provides support for high-quality economic development by adjusting its fiscal spending preference, which reduces the cost and risk of high-quality economic development. The regression coefficient of column (2), i.e., tax efforts on economic high-quality development, is 0.114, significant at the 1% level, indicating that tax preferences can significantly promote economic high-quality development.

Table 4: Baseline regression results

Variable	(1)	(2)
	Quality	Quality
Pes	10.633***	-
	(1.605)	-
Teffort	-	0.114***
	-	(0.036)

Ind	0.215***	0.078
	(0.038)	(0.022)
Hr	0.372**	0.452***
	(0.161)	(0.165)
Urb	-0.956***	-1.478***
	(0.366)	(0.405)
Fin	-1.417***	-1.345***
	(0.216)	(0.212)
Pop	-1.826***	-1.766***
	(0.337)	(0.333)
Open	0.105***	0.124***
	(0.035)	(0.025)
Year fixed effect	YES	YES
Industry fixed effect	YES	YES
R2	0.532	0.524

III. D. Analysis of mediating effects

III. D. 1) Mediated regression

Turning the perspective of this paper to the mediation path between variables, the mediation regression results are specifically shown in Table 5. The mediator variable regional tax system is significantly positively correlated with the explanatory variable economic high-quality development at the 1% statistical level, but the coefficient of the explanatory variable digitalized fiscal innovation on the mediator variable enterprise efficiency is positive but not significant. Therefore, it is necessary to borrow the Sobel test and bootstrap method, which are commonly used in the industry, to determine whether the regional tax system is a mediating variable.

Table 5: Mediated regression results

Variable	RTS	Quality
RTS	-	1.2826***
	-	(0.1214)
DFT	0.0007	-0.2184*
	(0.0152)	(0.1338)
Ind	0.0038	-0.1425
	(0.0254)	(0.3171)
Hr	0.0933**	-0.5528
	(0.0357)	(0.3882)
Urb	0.0001***	0.0001***
	(0.0001)	(0.0002)
Fin	0.0287*	0.0781
	(0.0055)	(0.0604)
Pop	-0.3146***	3.7922***
	(0.0072)	(0.0616)
Open	-0.1143***	0.9475***
	(0.0076)	(0.0645)
Constant term	-0.0058	19.0013***
	(0.1135)	(0.8268)
Provincial fixed	YES	YES
Year fixed	YES	YES
R square value	0.1664	0.3303

III. D. 2) Sobel test

After conducting the Sobel test, the test results are specifically shown in Table 6 [17]. The coefficient of the explanatory variable digital fiscal innovation on the explanatory variable economic high-quality development presents a significant negative correlation based on a statistical level of 1%, and the coefficient of the mediating variable regional tax system on the explanatory variable economic high-quality development presents a significant positive correlation based on a statistical level of 1%. This confirms that there is a mediating variable regional tax system between intergovernmental digital fiscal innovation and economic high-quality development, and digital fiscal innovation is positively related to the mediating variable regional tax system, and the mediating variable regional tax system is highly positively related to economic high-quality development.

Table 6: Sobel test results

Variable	Quality
RTS	1.1821*** (0.0563)
DFT	0.3132*** (0.0844)
Ind	-2.7548*** (0.1155)
Hr	0.5351*** (0.1668)
Urb	0.0001*** (0.0002)
Fin	0.3205*** (0.0143)
Pop	3.7561*** (0.0386)
Open	0.7702*** (0.0626)
Constant term	16.7631*** (0.1804)
Provincial fixed	YES
Year fixed	YES
R square value	0.3172

III. D. 3) Bootstrap method

The results of the Bootstrap method are shown specifically in Table 7. The indirect effect shows a significant negative correlation at the statistical level of 10%, the direct effect shows a significant negative correlation on the basis of 1%, and there is an intermediary effect if the indirect effect is significant, and according to the Sobel test and the Bootstrap method, it is confirmed that the regional tax system is the intermediary variable, and the conduction chain in the hypothesis two is confirmed to exist objectively.

Table 7: Bootstrap Result Table

Variables	Result
Indirect effect	-0.0134* -0.0116
Direct effect	-0.3052*** -0.0782

III. E. Spatial correlation test

Before the spatial regression test, it is also necessary to test the global spatial autocorrelation, and local spatial autocorrelation test, to test the overall and local specific ups and downs of the environmental tax policy in the region, and use Moran's I index to measure the degree of spatial differences and spatial correlation.

III. E. 1) Global spatial autocorrelation test

Spatial autocorrelation is understood to mean that regions in close proximity have similar values of a variable. If high values are clustered together with high values and low values are clustered together with low values, there is "positive spatial autocorrelation", and conversely, if high values are adjacent to low values, there is "negative spatial autocorrelation". The global Moran's I index is calculated as follows:

$$I = \frac{n \sum_{i=1}^n \sum_{j=1}^n w_{ij} (x_i - \bar{x})(x_j - \bar{x})}{S^2 \sum_{i=1}^n \sum_{j \neq i}^n w_{ij}} \quad (5)$$

where $S^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n}$ is the sample variance. Moran's I takes values between -1 and 1. If $Moran's I < 0$, it means

spatial negative correlation; if $Moran's I > 0$, indicates positive spatial correlation; if $Moran's I = 0$, indicates spatial irrelevance.

In this section, the economic and geographic nested weight matrix is chosen to test the spatial autocorrelation between digitalized fiscal innovation and economic high-quality development. The global Moran's I statistical value of digitalized fiscal innovation from 2014 to 2024 is specifically shown in Table 8. As can be seen from the table, the Moran's I index of digital tax innovation is larger than zero in every year, and it is also more significant at the 5% significant level, with obvious spatial correlation. It shows that the positive correlation of digital tax innovation in each region is very obvious.

Table 8: The global Moran 's I statistics of digital fiscal and taxation innovation

Year	Moran 'I index	Expected value	Variance	Z statistic	P
2014	0.061	-0.035	0.025	2.875	0.006
2015	0.066	-0.035	0.031	3.193	0.001
2016	0.066	-0.035	0.035	2.969	0.003
2017	0.073	-0.035	0.035	3.24	0.002
2018	0.068	-0.035	0.027	3.171	0.001
2019	0.061	-0.035	0.037	2.678	0.008
2020	0.042	-0.035	0.029	2.175	0.03
2021	0.054	-0.035	0.026	2.67	0.008
2022	0.036	-0.035	0.023	2.216	0.016
2023	0.031	-0.035	0.038	2.073	0.032
2024	0.032	-0.035	0.032	2.04	0.026

The global Moran's I statistic value of economic quality development in 2014-2024 is shown in Table 9. Within the sample period, the Moran's I index of high-quality economic development is characterized by fluctuations, but its value is greater than zero in all years and is significant at the 10% level of significance, indicating that high-quality economic development has a clear spatial positive correlation among regions.

Table 9: The global Moran 's I statistics of high-quality economic development

Year	Moran 'I index	Expected value	Variance	Z statistic	P
2014	0.022	-0.035	1.811	1.779	0.064
2015	0.028	-0.035	1.907	1.939	0.049
2016	0.026	-0.035	1.836	1.835	0.067
2017	0.033	-0.035	2.067	2.037	0.048
2018	0.037	-0.035	2.14	2.09	0.042
2019	0.037	-0.035	2.126	2.127	0.026
2020	0.055	-0.035	2.489	2.452	0.003
2021	0.041	-0.035	2.315	2.282	0.021
2022	0.063	-0.035	2.77	2.748	0.013
2023	0.054	-0.035	2.528	2.513	0.003
2024	0.066	-0.035	2.886	2.93	0.012

III. E. 2) Local spatial autocorrelation test

The local spatial correlation analysis is used to identify whether the digital fiscal innovations among each province belong to a high level of accumulation or a low level of accumulation, and the main method used is the Moran's I scatterplot method, which divides the environmental fiscal policies within each province into four quadrants of specific agglomeration patterns, and spatial correlation between one province and the other provinces are The identification of the spatial correlation between a province and other provinces is done by assuming that it is distributed in the first quadrant, which indicates a high and high agglomeration pattern (HH); if it is distributed in the second quadrant, it indicates a low and high agglomeration pattern (LH); if it is distributed in the third quadrant, it indicates a low and low agglomeration pattern (LL); and if it is distributed in the fourth quadrant, it indicates a high and low distribution pattern (HL). The corresponding numerical numbers for different provinces are specified in Table

10.

Table 10: Numbers of different provinces

Number	Provinces	Number	Provinces
1	Guangdong	16	Shaanxi
2	Beijing	17	Inner Mongolia
3	Shanghai	18	Jilin
4	Jiangsu	19	Hebei
5	Tianjin	20	Heilongjiang
6	Shandong	21	Gansu
7	Liaoning	22	Ningxia
8	Xinjiang	23	Qinghai
9	Sichuan	24	Guangxi
10	Henan	25	Yunnan
11	Hunan	26	Shanxi
12	Fujian	27	Hubei
13	Anhui	28	Guizhou
14	Jiangxi	29	Chongqing
15	Hainan	30	Zhejiang

Moran's I index scatter plot is specifically shown in Fig. 1, Figs. (a) and (b) correspond to 2014 and 2024, respectively. It can be seen that the digital fiscal innovation of provinces with similar economic geography has a tendency of imitation. In 2014, the environmental tax policy of Beijing, Shanghai, Tianjin, Zhejiang, Fujian, Hebei and other provinces presents a low-low agglomeration pattern, Guangdong, Jiangsu, Sichuan, Heilongjiang, Qinghai, Xinjiang, Ningxia, Guangxi its presented, is a low-high agglomeration pattern, and Shaanxi, Gansu, Hubei, Jilin, and Chongqing, etc., the presented is a high-high agglomeration pattern, and Anhui presents a low-high agglomeration pattern. By 2024, there is a polarization trend, with Shanghai, Tianjin, Jiangsu, Shandong, Hebei, Anhui, and many other places showing low-low agglomeration patterns, and Yunnan, Ningxia, Xinjiang, Guangxi, Inner Mongolia, and Jilin and Shanxi showing high-high agglomeration patterns.

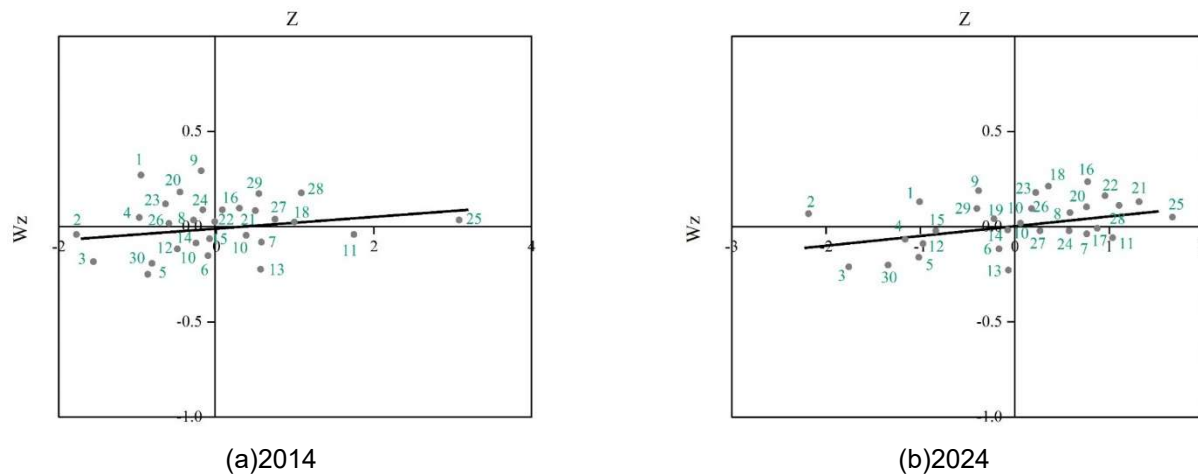


Figure 1: Moran 's I index scatter plot

IV. Conclusion

Digitalized fiscal and tax innovations have significantly promoted China's economic high-quality development and formed an effective transmission mechanism mediated by the regional tax system. The empirical results show that for every one unit increase in the preference of fiscal expenditure of regional governments, the level of high-quality economic development increases by 10.633 units; the optimization of tax effort increases the level of high-quality economic development by 0.114 units. As a key intermediary variable, the regression coefficient of regional tax system on economic high-quality development is as high as 1.283, giving full play to the policy transmission and resource allocation functions. Spatial analysis further reveals that digital fiscal innovation has obvious spatial spillover effects, and the Moran's I index is positive and significant during 2014-2024, indicating that there is a

development trend of policy imitation and synergy among neighboring regions. Provinces show differentiated agglomeration characteristics in the implementation of digital fiscal innovation, with the eastern coastal region forming a low-low agglomeration pattern, while the western region shows a high-high agglomeration trend. It is suggested that each region should promote digitalized fiscal reform according to local conditions, strengthen regional collaboration, establish a cross-regional fiscal coordination mechanism, give full play to the empowering role of digital technology, and promote the formation of a new regional economic pattern with complementary advantages and synergistic development.

References

- [1] Lagravinense, R., Liberati, P., & Sacchi, A. (2018). The growth and variability of regional taxes: an application to Italy. *Regional Studies*, 52(3), 416-429.
- [2] Lipatova, I. V. (2017). The system of regional taxation: Legal and economic analysis. *Accounting. Analysis. Auditing*, (1), 62-71.
- [3] Barro, R. J., & Furman, J. (2018). Macroeconomic effects of the 2017 tax reform. *Brookings papers on economic activity*, 2018(1), 257-345.
- [4] Varotsis, N., & Katerelos, I. (2020). Tax behaviour relating to the review of a revised regional tax policy: a study in Greece. *Journal of Economic Structures*, 9(1), 7.
- [5] Giroud, X., & Rauh, J. (2019). State taxation and the reallocation of business activity: Evidence from establishment-level data. *Journal of Political Economy*, 127(3), 1262-1316.
- [6] Kundt, T. C. (2017). Opportunities and challenges for taxing the informal economy and subnational taxation. *Emerging Issues Report*, 2(1), 3-15.
- [7] Akdogan, M. U. (2021). Digital Service Taxes as the Fiscal Result of Digital Transformation. In *Financial Ecosystem and Strategy in the Digital Era: Global Approaches and New Opportunities* (pp. 355-378). Cham: Springer International Publishing.
- [8] Adebiyi, O. O. (2023). Taxation in the digital age: an examination of the necessity, feasibility, and implications of taxing virtual infrastructures. *Asian Journal of Economics, Business and Accounting*, 23(23), 13-35.
- [9] Zhuravleva, I. A. (2024). Tax Support Tools for the Implementation of National Government Projects with the Digital Functioning of "Smart Government". In *Digital Transformation: What are the Smart Cities Today?* (pp. 109-126). Cham: Springer Nature Switzerland.
- [10] Kasianenko, L., Shopina, I., Karmalita, M., & Muliavka, D. (2020). Interest in the context of tax relations: traditional approach and trends of tax management development. *Juridical Tribune Journal= Tribuna Juridica*, 10(1), 56-68.
- [11] Afonso, W. (2023). Foundations of government taxation and revenue management. In *Research Handbook on Public Financial Management* (pp. 179-201). Edward Elgar Publishing.
- [12] Lipniewicz, R. A. F. A. Ł. (2017). Tax administration and risk management in the digital age. *Information Systems in Management*, 6.
- [13] LUTSYK, A., & SYNIUTKA, N. (2019). Tax instrument of fiscal policy under conditions of digitalization of fiscal space. *World of finance*, (1 (58)), 87-97.
- [14] Manzhura, O., Pochenchuk, G., & Kraus, N. (2022). Innovative changes in financial and tax systems in the conditions of digital transformation. *Baltic Journal of Economic Studies*, 8(1), 94-102.
- [15] Tai Wai Kwok, SiWei Chang & Heng Li. (2025). Understanding client satisfaction of prefabricated curtain wall in Hong Kong using XGBoost and Pearson correlation. *Engineering Construction and Architectural Management*, 32(2), 1254-1277.
- [16] Arturs Kalnins & Kendall Praitis Hill. (2024). Additional caution regarding rules of thumb for variance inflation factors: extending O'Brien to the context of specification error. *Quality & Quantity*, 59(suppl 1), 1-24.
- [17] Uma Shankar Yadav, Indrajit Ghosal, Anupam Pareek, Kritika Khandelwal, Ajay Kumar yadav & Chandra Chakraborty. (2024). Impact of entrepreneurial orientation and ESG on environmental performance: moderating impact of digital transformation and technological innovation as a mediating construct using Sobel test. *Journal of Innovation and Entrepreneurship*, 13(1), 86-86.