Research on the Impact of Digital Economy on High-Quality Economy Development in Border Areas

Mengjia Chang

Guangxi University, Nanning, China

Abstract: Digital economy is deeply integrated into all aspects of social and economic life, and has become an important engine to promote high-quality development.This paper selects the panel data of nine provinces in China's border areas from 2011 to 2022 to construct a two-way fixed effect model for analysis.The results show that the development of digital economy has significantly promoted the high-quality development of frontier economy.Innovation ability plays an intermediary role in the process of digital economic development affecting the high-quality development of frontier economy;There is a threshold effect in the promotion of digital economy to the high-quality development of frontier economy.

Keywords: digital economy, high-quality development, intermediary effect, threshold effect

1. Introduction

The role of the digital economy has become increasingly prominent, and China has entered the digital age.According to the White Paper on the Development of China's Digital Economy (2023), the scale of China's digital economy will reach 50.2 trillion yuan in 2022.The digital economy accounted for 41.5% of GDP.The Central Economic Work Conference proposed that efforts should be made to promote high-quality development and vigorously develop the digital economy.Achieving high-quality economic development in border areas is an important measure to promote high-quality economic development in China[5].It is also an inevitable choice to consolidate the tranquility of the frontier. Therefore, it is inevitable to study the impact of digital economy on the high-quality development of frontier economy.

2. Literature Review and Research Hypothesis

2.1 Digital Economy and High-quality Economic Development

There have been many studies on the impact of digital economy on high-quality development. According to Li Lin's[4] research,The digital economy with high permeability and high value has changed the previous human capital model of cities and intensified the agglomeration and promotion of urban innovation elements.High quality development level of high city. Tian Hui[6] started their research from 108 prefecture-level cities in the Yangtze River Economic Zone.It is found that the digital economy can promote the high-quality development of the Yangtze River Economic Zone and has different impacts on different dimensions of high-quality development.Qiu Bin[1] carried out research at the national level.It is found that the digital economy has a significant role in promoting high-quality economic development and has a significant positive spillover effect on the surrounding areas.

With the continuous development of Internet, big data, artificial intelligence and other technologies,The digital economy is deeply integrated into all aspects of the border areas.On the one hand, digital economy improves production efficiency and product quality, on the other hand, digital economy optimizes industrial structure.It provides impetus and space for economic growth. Therefore, the following hypothesis is put forward.

H1: The development of digital economy can promote the high-quality development of border economy.

2.2 Digital economy, innovation capability and high-quality economic development

In the process of the development of digital economy, digital economy also promotes innovation.It has attracted a large number of talents and enterprises to join the ranks of the digital economy and further promote economic development.Zhang Jinrui[2] believes that the digital economy can influence the economic development of the region by improving the level of technological innovation.And then affect the high-quality development of the economy. Li Congzhe[16] started with prefecture-level cities.It is found that the ability of scientific and technological innovation plays a partial intermediary role in the process of digital HP finance affecting the high-quality development of the economy.

H2: The development of digital economy promotes the high-quality development of border areas through technological innovation.

2.3 Non-linear impact of digital economy on high-quality economic development

The role of digital economy in promoting high-quality economic development is not a simple linear relationship, but a threshold effect.Yan Tao[14] found that the digital economy has a threshold effect on high-quality development.After the development level of digital economy has crossed its own threshold and the threshold of scientific and technological innovation, its role in high-quality development has been strengthened.Wang Junping[10] confirmed that industrial structure plays a significant threshold role in the process of digital economy affecting high-quality economic development.Yuan Jie[11] believes that there is a "positive U-shaped" non-linear relationship between the digital economy and the high-quality development of high-tech zones.When the development of high-tech zones reaches a certain maturity, digital economy will promote high-quality economic development. Therefore, the following hypothesis is put forward.

H3: The development of digital economy has a threshold effect on the promotion of high-quality development in the border areas.

3. Study design

3.1 Model construction

To validate Hypothesis H1, the baseline regression model is set as follows:

$$\ln hqed_{it} = \alpha + \beta_i deai_{it} + \delta controls_{it} + \lambda_r + \mu_t + \varepsilon_{it} \qquad (1)$$

In the formula (1), lnhqed is the logarithm of high-quality economic development; deaI is the development level of digital economy; controls is the control variable,It mainly includes the level of opening to the outside world (lnopen), government control (lngov), financial development (fin) and urbanization (ur);I is the region; t is the time; α is the constant term; β and δ are the estimated parameters; λ_i is the fixed effect of the region; μ_t is the fixed effect of the year; ε_{it} is the random perturbation term.

In order to explore the transmission path of digital economic development to high-quality economic development, the following intermediary effect model is set up:

$$\ln hqed_{it} = \alpha_0 + \alpha_1 deai_{it} + \alpha_2 controls_{it} + \lambda_i + \mu_t + \varepsilon_{it} \qquad (2)$$

$$\ln inn_{it} = \beta_0 + \beta_1 deai_{it} + \beta_2 controls_{it} + \lambda_i + \mu_t + \varepsilon_{it} \qquad (3)$$

$$\ln hqed_{it} = \gamma_0 + \gamma_1 \ln inn_{it} + \gamma_2 deai_{it} + \gamma_3 controls_{it} + \lambda_i + \mu_t + \varepsilon_{it} \qquad (4)$$

In the formula, lninn is the mediating variable of innovation capability; α_1 is the total effect of digital economic development on high-quality economic development; γ_2 is the direct effect of the development of digital economy on the high-quality development of economy. $\beta_1 . \gamma_1$ is the indirect effect of the development of digital economy on the development of high quality economy;When γ_2 is not significant, but γ_1 significant, there is a complete mediating effect on innovation capability;When

γ_1 is significant and γ_2 also significant, there is a partial mediating effect of innovation capability.

3.2 Variable selection and setting

3.2.1 Explained variable

The explanatory variable is the high-quality development of the economy, referring to the research ideas of Wang Junping[3] and Zhao Juan[8],coordinated development, green development, open development and shared development are the five first-level indicators of high-quality economic development.Nine secondary indicators and entropy method are used to construct the index system of high-quality economic development of Table 1.

Table 1: Construction system of High quality development indicators

Primary indicator	Secondary indicators	Level 3 indicators
High quality development	Innovation and development	GDP growth rate
		R & D investment intensity
		Investment efficiency
		Technology trading activity
	Coordinated development	Demand structure
		Urban-rural structure
		Government debt burden
		Industrial structure
	Green development	Elasticity of energy consumption
		Exhaust gas per unit output
		Wastewater generated by the facility
	Open development	Dependence on foreign trade
		Proportion of foreign investment
		Degree of marketization
	Shared development	Proportion of workers' remuneration
		Residents' income growth elasticity
		Urban-rural consumption gap
		Proportion of fiscal expenditure for people's livelihood

3.2.2 Core explanatory variables

With regard to the development index of digital economy, scholars have put forward a series of evaluation index systems for the development index of digital economy.This paper draws on the research ideas of Li Xiaozhong[13]and ZhouYan[7].Taking digital infrastructure and agricultural digitalization as two first-level indicators and 10 second-level indicators of digital economic development, the entropy method was used to construct them.Establish the index system of digital economy development index of Table 2.

Table 2: Construction system of digital economy indicators

Primary indicator	Secondary indicators	Unit
Digital infrastructure	Number of domain names	Ten thousand
	Number of pages	Ten thousand
	Internet broadband access port	Ten thousand
	Internet broadband access user	Ten thousand households
	Length of long-distance optical cable line	Ten thousand kilometers
	Mobile phone penetration	%
Digitization of agriculture	Average population served by rural postal outlets	Ten thousand people
	Investment in fixed assets of agriculture, forestry, animal husbandry and fishery	Billion yuan
	Peking University Digital Inclusive Finance Index	
	Online retail sales	Billion yuan

3.2.3 Mediating variable

In order to study the indirect influence mechanism of the development of digital economy on the high-quality development of frontier economy,This paper selects innovation capability (lninn) as a mediating variable.It is measured by the natural logarithm of the ratio of the number of patent applications authorized by each province to the total resident population at the end of the year.

3.2.4 Control variable

To control for other influencing factors,The following control variables are selected: ① The degree of government intervention (lngov): the natural logarithm of the ratio of provincial public financial expenditure to GDP;② The level of opening to the outside world (lnopen): the natural logarithm of the ratio of total import and export volume to GDP of each province;③ Urbanization level (ur): the ratio of urban population to the total number of permanent manholes in each province;④ Financial development level (fin): the proportion of the balance of deposits and loans of financial institutions in the GDP of each province at the end of the year;

3.3 Source of data

Nine provinces in the border areas from 2011 to 2020 were taken as the research objects.The data come from China Statistical Yearbook, Statistical Yearbook of Provinces and Municipalities, Digital Finance Research Center of Peking University, etc.In order to mitigate the possible effects of different dimensions and heteroscedasticity on the results, some variables are treated as logarithms.The results of descriptive statistics of the main variables are shown in Table 3.

Table 3: Summary statistics

	N	Mean	SD	Min	Max	Median
Lnhqed	90	-1.477	0.268	-2.039	-.68	-1.5
Deai	90	.085	0.040	.016	.18	.077
Lninn	90	-8.205	0.846	-11.647	-6.561	-8.084
Lnopen	90	-2.076	0.639	-4.487	-1.119	-2.021
Lngov	90	-1.116	0.536	-1.856	.321	-1.232
Ur	90	51.907	11.440	22.71	72.14	53.98
Fin	90	3.183	1.089	1.53	6.867	2.946
Lndif	90	5.132	0.714	2.786	5.841	5.374

4. Analysis of empirical results

4.1 Benchmark Regression Results

Table 4: Baseline regression result

	Lnhqed	Lnhqed	Lnhqed
Deai	1.955***	3.577**	3.309***
	(3.21)	(2.24)	(2.97)
Lnopen			0.142***
			(4.41)
Lngov			-0.228
			(-1.19)
Fin			0.049
			(1.29)
Urr			-3.216**
			(-2.48)
_cons	-1.643***	-1.781***	-0.202
	(-30.49)	(-12.96)	(-0.33)
Time	Yes	Yes	Yes
Ind	Yes	Yes	Yes
N	90	90	90
Adj. R-sq	0.0754	0.7319	0.7794

The model passed the Hausmann test, so the fixed effects model was chosen.

In column (1) of Table 4, no control variable is added, and only the core explanatory variable digital economic development deaI is added;Control variables are also not introduced in column (2),However, on the basis of adding the core explanatory variable deaI of digital economic development, the fixed effects of provinces and years are added;Column (3) adds all control variables as well as province and year fixed effects. The results in Table 4 show that regardless of whether control variables are introduced,The impact of digital economic development on the high-quality development of frontier economy is positive at the significance level of 1%, that is, the hypothesis H1 is established.From the point of view of the control variables,The improvement of the level of opening up and financial development in the border areas will promote the high-quality development of the border economy.Government intervention and urbanization have inhibited the high-quality development of the frontier economy.

4.2 Conduction mechanism test

Table 5: Conduction mechanism test result

	Lnhqed	Lninn	Lnhqed
Deai	3.309***	-9.236**	2.047**
	(2.97)	(-2.57)	(2.05)
Lnopen	0.142***	0.052	0.150***
	(4.41)	(0.81)	(4.68)
Lngov	-0.028	-0.341	-0.274
	(-1.19)	(-0.83)	(-1.40)
Fin	0.049	-0.019	0.046
	(1.29)	(-0.32)	(1.20)
Urr	-3.216**	12.154***	-1.556
	(-2.48)	(4.63)	(-1.12)
Lninn			-0.137***
			(-2.88)
_cons	-0.202	-13.944***	-2.106**
	(-0.33)	(-11.80)	(-2.16)
Time	Yes	Yes	Yes
Ind	Yes	Yes	Yes
N	90	90	90
Adj. R-sq	0.7794	0.9190	0.7914
Sobel	0.067*(Z=1.826)		

In order to verify the indirect impact of the development of digital economy on the high-quality development of frontier economy,Through the intermediary variable innovation ability, the transmission mechanism of digital economic development to the high-quality development of frontier economy is analyzed.Table 5 shows the regression results of mediation effect.Among them, (1) is listed as the first step of the intermediary effect test to measure the impact of the development of digital economy on the high-quality development of border economy.The coefficient of the explanatory variable deaI is significantly positive.(2) As the second step of the mediating effect test, we measure the impact of the development of the explanatory variable digital economy on the innovation capability of the mediating variable.The coefficient of the explanatory variable deaI is significant. (3) As the third step of the mediating effect test, the coefficient of the mediating variable lninn is significant.This shows that innovation capability is an intermediary variable affecting the high-quality development of border economy.Although the coefficient of the core explanatory variable deaI is still significant, its coefficient is lower than that of (1).The results of Table 5 show that innovation capability has an intermediary effect between the development of digital economy and the high-quality development of frontier economy.

4.3 Robustness test

4.3.1 Endogenous treatment

The impact of the development of digital economy on the high-quality development of frontier economy may lag behind.Therefore, the benchmark econometric model is estimated by the lag period of the development of digital economy. The results are shown in Table 6. Column (1) does not add control variables.(2) All control variables are added to the column, whether the control variables are

added or not.The influence coefficient of the development of digital economy on the high-quality development of frontier economy is significantly positive.The results show that the benchmark regression results have good robustness.

Table 6: Endogenous treatment

	lnhqed	Lnhqed
Deai	5.004***	4.648***
	(2.42)	(3.26)
Lnopen		0.147***
		(4.00)
Lngov		-0.244
		(-1.14)
Fin		0.055
		(1.26)
Ur		-2.357
		(-1.57)
_cons	-1.873***	-0.748
	(-11.40)	(-1,57)
Time	Yes	Yes
Ind	Yes	Yes
N	81	81
Adj. R-sq	0.7392	0.7765

4.3.2 Other robustness tests

Shorten the sample life：Referring to Zhao Juan's[8] practice, the original sample period was 2011-2020, and the robustness test shortened the period to 2015-2020.The robustness results are shown in columns (1) and (2) of Table 7, where column (1) does not include control variables and column (2) includes all control variables.Whether control variables are added or not,The influence coefficient of the development of digital economy on the high-quality development of frontier economy is positive at the level of 5%.The results are similar to the benchmark regression results, so the benchmark regression results have good robustness.

Replace the explained variable: GDP is used to replace hqed, an indicator of high-quality economic development, to further verify the robustness of the benchmark regression results, as shown in Table 7.(3) no control variables are added to the column, (4) all control variables are added to the column, whether or not the control variables have been added,The impact of digital economic development on the high-quality development of frontier economy is positive at the level of 1%, which is similar to the benchmark regression results.Therefore, it is proved that the benchmark regression results have good robustness.

Table 7: Robustness tests

	Lnhqed	lnhqed	lnhqed	lnhqed
Deai	5.192***	5.327***	13.584***	9.207***
	(2.68)	(2.76)	(6.82)	(4.21)
Lnopen		0.095		0.097
		(0.74)		(0.88)
Lngov		-0.435		0.964***
		(-1.03)		(4.41)
Fin		0.120		-0.426***
		(1.02)		(-4.08)
Ur		0.037		0.052***
		(0.88)		(6.88)
_cons	-2.053***	-4.784**	7.955***	8.282***
	(-9.35)	(-2.08)	(42.61)	(13.32)
Time	Yes	Yes	Yes	Yes
Ind	Yes	Yes	Yes	Yes
N	45	45	90	90
Adj. R-sq	0.7969	0.7967	0.3382	0.6494

5. Threshold effect

In order to further explore whether the development of digital economy has nonlinear influence and threshold conditions on the high-quality development of frontier economy. Using the threshold regression model proposed by Hansen, the threshold effect of digital economic development on the high-quality development of frontier economy is constructed as follows:

$$\ln hqed_{it} = w_0 + w_1 deai_{it}I(q_{it} \leq u) + w_2 deai_{it}I(q_{it} > u) + w_3 controls_{it} + \lambda_i + \mu_t + \varepsilon_{it}$$

Where I (.) is the indicator function; q is the threshold variable; u is the threshold value; w_2 is the influence coefficient of digital economic development on the high-quality development of frontier economy when $q \leq u$; w_1 is the impact coefficient of digital economic development on the high-quality development of frontier economy when $q > u$; When w_1 and w_2 are not equal, there is a threshold effect, otherwise there is no threshold effect[15].

Innovation ability, government intervention and financial development level are taken as threshold variables. The results showed that they all passed the single threshold, failed to pass the double threshold and triple threshold, so the single threshold was selected. The results are show in Table 8.

Table 8: Threshold teat result

Threshold variable	Threshold number	F value	P value	1% critical value	5% critical value	10% critical value	Threshold value
Lninn	Single threshold	9.94	0.0667	14.2480	10.7431	9.0922	-7.5161
Fin	Single threshold	18.76	0.0033	16.9623	14.2597	12.2059	2.7260
Lngov	Single threshold	11.30	0.07	17.4856	12.6318	9.9081	-1.2162

Table 9: Threshold regression result

	Lnhqed	lnhqed	Lnhqed
Lnopen	0.147***	0.113**	0.218***
	(4.43)	(3.16)	(6.57)
Lngov	-0.190	-0.166	-0.560*
	(-0.87)	(-0.70)	(-2.20)
Fin	0.007	-0.015	0.017
	(0.24)	(-0.50)	(0.47)
Ur	-0.021	-0.025	-0.039**
	(-1.29)	(-1.53)	(-2.71)
0._cat#c~i	2.688*	2.086	5.210***
	(2.01)	(1.32)	(5.06)
1._cat#c~i	3.876**	3.741**	7.144**
	(3.11)	(2.66)	(5.47)
_cons	-0.598	-0.333	-0.598
	(-0.88)	(-0.44)	(-0.88)
Time	Yes	Yes	Yes
Ind	Yes	Yes	Yes
N	90	90	90
Adj. R-sq	0.3260	0.3202	0.33

Table 9 shows the results of threshold regression. The threshold variable is innovation capability. When lninn ≤ -7.5161, the influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 2.688. And pass the test at the 10% significance level. When lninn > -7.5161, the influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 3.876. And passed the test at the 5% significance level. It shows that when the innovation ability crosses the threshold, the development of digital economy plays a more important role in promoting the high-quality development of frontier economy. At the same time, it also shows that innovation capability is the intermediary variable and threshold variable for the development of digital economy to affect the high-quality development of frontier economy. It has played a role in promoting high-quality development.

The threshold variable is the level of financial development. When fin ≤ 2.2760, the influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 2.086.Although the coefficient is positive, it is not significant, indicating that when the level of financial development is low.The development of digital economy is difficult to play a role in promoting the high-quality development of border economy. At fin > 2.7260,The influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 3.741 and passes the test at the significance level of 5%.It shows that when the level of financial development crosses the threshold,The development of digital economy has a strong positive impact on the high-quality development of frontier economy.

The threshold variable is government intervention. When lngov ≤ -1.2162,The influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 2.688 and passes the test at the significance level of 10%.When lngov > -1.2162, the influence coefficient of the core explanatory variable deaI on the explanatory variable lnhqed is 3.876.And passed the test at the 5% significance level. The influence coefficient becomes larger and the significance increases, which indicates that when the government intervention crosses the threshold,The development of digital economy has played a significant role in promoting the high-quality development of border economy.

6. Conclusions and recommendations

6.1 Conclusion

This paper uses the panel data of nine provinces in China's border areas from 2011 to 2020.On the basis of using entropy method to measure the development of digital economy and the level of high-quality economic development,The direct, indirect and threshold effects of the development of digital economy on the high-quality development of frontier economy are discussed.After that, the robustness and endogeneity of the development of digital economy to the high-quality development of frontier economy are further analyzed.The conclusions are as follows:

The development of digital economy has a significant role in promoting the high-quality development of border economy.Whether the control variable coefficient is added or not, it is an important driving force to promote the high-quality development of the frontier economy.After the robustness test and endogeneity consideration, the conclusion is still valid;

The development of digital economy promotes the high-quality development of frontier economy through the improvement of the level of opening up and financial development.Government intervention and urbanization will inhibit the high-quality development of border economy;

Innovation level is an important driving factor for the development of digital economy to promote the high-quality development of frontier economy.Digital economy can indirectly promote the high-quality development of border economy through innovation capability;

After the level of financial development and government intervention have crossed the threshold. The positive impact of the development of digital economy on the high-quality development of frontier economy has been enhanced.

6.2 Recommendations

Give full play to the advantages of the digital economy, improve relevant policies and measures, and strengthen the construction of digital infrastructure[9].We will increase investment in the construction of digital infrastructure, promote the popularization and application of new digital technologies, and improve network coverage and transmission speed.Promote the healthy development of digital economy and make greater contributions to the high-quality economic development of border areas.

Increase investment in scientific research and encourage innovation[12].Talents are the key to scientific and technological innovation, so we should actively introduce excellent talents and pay attention to the cultivation of talents.Colleges and universities are encouraged to set up digital majors, while strengthening the protection of intellectual property rights to support innovative achievements.And then promote the high-quality development of the frontier economy.

The role of digital economy in promoting high-quality development is not a simple linear relationship.Therefore, in the process of promoting the development of digital economy, we need to pay attention to the coordinated development of digital economy and high-quality development.Avoid

blindly pursuing the scale and speed of the digital economy, while ignoring the impact on high-quality development.At the same time, we need to strengthen policy guidance and supervision to promote the healthy development of the digital economy.To provide impetus for the realization of high-quality development in border areas.

References

[1] Qiu Bin, Gu Chenguang, Wang Zibei, Lei Ming. Digital economy, population mobility and high-quality economic development [J]. Statistics and Decision, 2023, (20): 17-22.

[2] Zhang Jinrui. Research on Evaluation of High-quality Economic Development in Zhejiang Province [J]. Trade Show Economy, 2023, (20): 22-26.

[3] Wang Junping, Zhao Wei, Li Shanshen, Liu Yaqian. Research on the relationship between new infrastructure, digital economy and high-quality economic development [J].Price Theory and Practice: 1-5.

[4] Li Lin. Research on the Impact Mechanism of Digital Economy on Urban High-quality Development [J]. Business Economic Research, 2023, (20): 184-188.

[5] Liu Xiaoming, Zheng Miaolian. Digital economy, high-quality development and common prosperity [J]. Journal of Shanxi Datong University (Natural Science Edition), 2023, 39 (05): 54-59.

[6] Tian Hui, Guo Ming, Qin Jiaqi. Research on the Impact of Digital Economy on the High-quality Development of the Yangtze River Economic Belt: Evidence from 108 Prefecture-level Cities [J]. Industrial Technical Economy, 2023, 42 (10): 17-25.

[7] Zhou Yan, Chen Zheng, Wang Yanrong, Jiang Gending, Liu Xuelei. Research on the Measurement of Digital Economy Development Level and High-quality Economic Development in the Yangtze River Economic Zone [J].Journal of Changsha University, 2023, 37 (05): 91-96 + 107.

[8] Zhao Juan, Wang Peng. The Impact of Digital Economy on the Upgrading of Industrial Structure in Hebei Province: Based on the Perspective of Human Capital [J].Technology and Industry, 2023, 23 (17): 204-211.

[9] Li Guorong, Chen Fang. Research on the impact of China's digital economy on high-quality economic development [J]. Contemporary Economic Research, 2023, (08): 102-116.

[10] Wang Junping, Zhao Wei. Research on the Impact of Digital Economy on High-quality Economic Development — — Based on the Threshold Role of Industrial Structure [J].Journal of Xi'an Shiyou University (Social Science Edition), 2023, 32 (04): 18-25.

[11] Yuan Jie. Research on the Impact of Digital Economy on the High-quality Development of High-tech Zones [D]. Shandong University of Finance and Economics, 2023.

[12] Liu Yongwen, Kang Tao. How can the development of digital economy improve the efficiency of green economy? [J]. Journal of Guangxi University of Finance and Economics, 2023, 36 (02): 19-34.

[13] Li Xiaozhong, Wu Wenhao, Gu Guoda. Can the development of digital economy enhance the resilience of regional economy?Research based on mediation effect, threshold effect and spatial spillover effect [J].Journal of Zhejiang University (Humanities and Social Sciences Edition), 2022, 52 (12): 21-39.

[14] Yan Tao, Chen Yang. The Impact of Digital Economy on High Quality Development: a Test Based on Mediator Model and Threshold Model [J].Economics and Management, 2022, 36 (06): 1-7.

[15] Jianfei Cao, Yanling Han. Empirical test of the impact of digital economy on high-quality development of urban economy [J]. Statistics and Decision, 2022, 38 (16): 82-86.

[16] Li Congzhe. Research on the Impact of Digital Inclusive Finance on High-quality Economic Development [D]. Dongbei University of Finance and Economics, 2023.