Original Research Article Digital finance, financial asset allocation and high-quality development of enterprises

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Abstract: The development of digital finance has an important impact on the high-quality development of enterprises. Based on the data of A-share listed companies in Shanghai and Shenzhen from 2013 to 2022, this paper empirically examines the relationship between digital finance and high-quality enterprise development. The results show that digital finance can promote the high-quality development of enterprises. Further research shows that the three sub-dimensions of digital finance can promote the high-quality development of enterprises, and the intermediary effect is still valid, and it is more significant in non-state-owned enterprises and the eastern region. On the basis of the existing research on the relationship between digital finance and the high-quality development of enterprises, this study explores the mechanism from the perspective of financial asset allocation, so as to provide a theoretical basis for preventing excessive financialization of enterprises and promoting their long-term development.

Keywords: Digital finance; Financial asset allocation; High-quality enterprise development; Reservoir motivation; Investment substitution motivation

1. Introduction

The 2023 Central Economic Work Conference pointed out that "concentrating on promoting high-quality development" will help promote the economy to achieve qualitative and effective improvement and reasonable quantitative growth. Enterprises are the core subjects of macroeconomic operation, and the high-quality development of enterprises is the basis for the realization of high-quality economic development. The high-quality development of enterprises requires sufficient financial support, but the problem of financing constraints has plagued the development of many enterprises for a long time. As an emerging financial model, digital finance can inject capital into the high-quality development of enterprises for a long time. As an emerging funds. If an enterprise uses an appropriate amount of funds as a reservoir to reserve funds, it can alleviate the urgent need for enterprise capital and is conducive to the high-quality development of enterprises; If enterprises hold financial assets excessively for profit-seeking purposes, it will inhibit industrial investment and innovation activities, and hinder the high-quality development of enterprises^[2].

So, how does digital finance affect the allocation of financial assets to help enterprises develop with high quality after providing funds for enterprises? The mechanism of action needs to be further studied. This paper empirically examines the impact of digital finance on the high-quality development of enterprises using the data of listed companies. The possible research contributions are reflected in the following points: (1) This paper explains the internal mechanism of digital finance to promote the high-quality development of enterprises from the perspective of financial asset structure. (2) The conclusions of this paper may play a certain enlightening role in the rational allocation of financial assets by enterprises.

2. Theoretical analysis and research hypotheses

As a new type of financial business model, digital finance can subvert the traditional financial form and use new technologies to help enterprises develop at a high quality. First, digital finance expands the scope of financial services, alleviates the constraints on corporate financing, and creates conditions for improving the availability of corporate funds^[3,4]. Secondly, digital finance collects and integrates massive corporate data through financial technology, alleviates the information asymmetry between borrowers and lenders and improves the rational allocation of credit resources in financial institutions. This injects necessary financial support into providing high-quality products and services to enterprises, jointly promoting high-quality development of enterprises.

So, after funds enter the enterprise, the key to how digital finance can help enterprises optimize the allocation level of financial assets and help enterprises develop at a high-quality level. First of all, digital finance provides digital technology to financial institutions, helping financial institutions deepen the "soup-style" integration of technology and services, and bring more fund management solutions to enterprises. After obtaining funds, enterprises use them to allocate these "savings" financial assets to deal with the emergencies they face in the future. Secondly, digital finance uses digital technologies such as big data to form an ecological map of enterprise information flow and other data, which facilitates sharing of information with enterprise partners, supervises management's decisions, and prompts them to make smart investments^[5]. At this time, the enterprise reasonably allocates funds and uses them to improve technology development, product innovation and service quality, thereby promoting the high-quality development of the enterprise.

Hypothesis H1: The development of digital finance will help achieve high-quality development of enterprises.

Hypothesis H2: Digital finance encourages enterprises to optimize the level of corporate financial asset allocation and help enterprises develop at high quality.

3. Research design

3.1. Sample selection

This article selects all A-share listed companies from 2013 to 2022 as research samples, and performs the following processing on the original data: (1) Exclude the observations of ST and ST* companies; (2) Exclude the observations of financial companies; (3) Exclude the observations of missing data from other variables. (4) Perform 1% reduction of the upper and lower ends.

3.2. Variable definition

Interpreted variable: High-quality enterprise development (HQD), High-quality development of enterprises calculated by entropy weight method^[6].

Explanatory variables: Digital Finance (Index), The logarithm of the municipal digital financial inclusion index.

Mediation variables: "Savings" financial asset allocation (Finshort), (Monetary Funds + Trading Financial Assets) / Total Assets; "Investment alternative" financial assets (Finlong), (Net holding to maturity investment + net available-for-sale financial assets + derivative financial assets + net long-term equity investment + net interest receivable + net dividend receivable)/Total assets.

Control variables: Enterprise size (Size), Debt-of-asset ratio (Lev), The ratio of tangible assets (Tangi),

Cash flow ratio (Cash), Two jobs in one (Dual), Tobin Q value (TobinQ), Administrative expense ratio (Mfee), Financial leverage (Dfl).

Level1 indicators	Level2 indicators	Measurement method	
Innovation and	Innovation funding investment	R&D cost investment/operating income	
development	Intellectual property capability	Number of company patent authorizations	
Operating quality and efficiency	Inventory turnover rate	Operating cost/Average inventory balance	
	Total Asset Turnover Rate	Sales Income/Total Assets	
	Total Return on Assets	EBIT/Average Total Assets	
	Operating income growth rate	Operating income growth/Total operating income of the previous year	
	Net profit growth rate Net	Profit growth / Net profit for the previous year	
	Quality of product services	Herfindahl Index	
Management and governance capabilities	Internal control level	Whether internal controls are effective	
	Percentage of independent directors	Number of independent directors/number of directors	
	Overconfidence in management	The bias rate of a company's earnings forecast	
Green development	Environmental information disclosure status	Whether the social responsibility report discloses environmental related environmental information, the disclosure is 1, otherwise it is 0	
	Pollution treatment capacity	Scores using indicators. If there is quantitative disclosure, qualitative disclosure is 1, and if there is no disclosure, it is 0.	
Shared development	Enterprise revenue sharing level	Gross salary/operating income of the enterprise	
	Tax contribution level	The actual amount of income tax payable by the enterprise/ business income	

Table 1. High-quality enterprise development indicator system.

3.3. Model

$HQD_{i,t} = \alpha_0 + \alpha_1 Index_{imt} + \alpha_2 Controls_{i,t} + \mu_t + \vartheta_i + \varepsilon_{i,t}$	(1)
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$$Finshort_{i,t} = \beta_0 + \beta_1 Index_{imt} + \beta_2 Controls_{i,t} + \mu_t + \vartheta_i + \varepsilon_{i,t}$$
(2)

$$HQD_{i,t} = \gamma_0 + \gamma_1 Index_{imt} + \gamma_2 Finshort_{i,t} + \gamma_3 Controls_{i,t} + \mu_t + \vartheta_i + \varepsilon_{i,t}$$
(3)

$$Finlong_{i,t} = \delta_0 + \delta_1 Index_{imt} + \delta_2 Controls_{i,t} + \mu_t + \vartheta_i + \varepsilon_{i,t}$$
(4)

$$HQD_{i,t} = \theta_0 + \theta_1 Index_{imt} + \theta_2 Finlong_{i,t} + \theta_3 Controls_{i,t} + \mu_t + \vartheta_i + \varepsilon_{i,t}$$
(5)

4. Empirical results

4.1. Baseline regression

Index (Full Sample): β =0.0075*** (p<0.01). Index (Eastern Region): β =0.0067*** (p<0.01). Index (Central Region): β =0.0091*** (p<0.01). Index (Western Region): β =0.0045 (p>0.1).

The development of digital finance can significantly promote the high-quality development of enterprises, and it is especially significant for the eastern region. Suppose H1 is true.

	(1)	(2)	(3)	(4)		
Variables	Full Sample	Eastern Region	Central Region	Western Region		
Index	0.0075***	0.0067***	0.0091***	0.0045		
	(6.919)	(5.293)	(2.727)	(1.643)		
Control	YES	YES	YES	YES		
Fixed effect	YES	YES	YES	YES		
Observations	17,633	12,762	2,195	2,676		
Adjusted R ²	0.201	0.228	0.179	0.194		

Table 2. Digital finance and high-quality enterprise development.

Note: *, **, and *** indicate significant at the 1%, 5%, and 10% levels.

4.2. Analysis of the impact mechanism

Index (Finshort): β =0.0234*** (p<0.01). Index (HQD): β =0.0071*** (p<0.01). Finshort (HQD): β =0.0144*** (p<0.01). Index (Finlong): β =-0.0072*** (p<0.01). Index (HQD): β =0.0074*** (p<0.01). Finlong (HQD): β =-0.0123*** (p<0.01).

Digital finance can promote the allocation of "savings" financial assets, reduce "investment substitution" financial assets, optimize the allocation of corporate financial assets, and achieve high-quality development of enterprises, assuming that H2 is true.

5. Robustness test and endogeneity test

Robustness Test: This paper uses the lagged Internet penetration rate and the Bartik instrument as instrumental variables to test the hypothesis again. The results show that the conclusions of this paper are robust.

Endogeneity Test: The main hypothesis is verified by replacing the explanatory variables, the explanatory variables, and the subsamples, and the Bootstrap method is used to verify the mediating effect, and the results are significant, and the conclusions of this paper are robust.

6. Further research

Nature of property rights and Digital finance sub-dimension: The intermediary effect is significant in non-state-owned enterprises. The mediating effect of three sub-dimensions of digital finance is significant.

7. Conclusions and recommendations

The empirical results of this paper show that:

(1) there is a significant positive correlation between digital finance and the high-quality development of enterprises, and it is more significant in the eastern region;

(2)Digital finance can optimize the level of financial asset allocation and promote the high-quality development of enterprises;

(3) The intermediary effect of the three sub-dimensions of digital finance is significant, and it is more significant in non-state-owned enterprises.

The conclusions of this paper have the following implications for the development and regulation of digital finance:

(1) Continue to vigorously strengthen the development of digital finance.

(2)Balance the allocation of financial resources and promote the development of digital finance in various

regions.

(3) Strengthen the supervision of digital finance.

References

- Gomber, Kauffman, Parker, et al. On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services[J]. Journal of Management Information Systems, 2018, 35(1).
- [2] Opler T, Pinkowitz L, Stulz R, et al. The determinants and implications of corporate cash holdings[J]. Journal of Financial Economics, 1999, 52(1).
- [3] Hall B H ,Lerner J. The financing of R&D and innovation[J]. Handbook of the economics of innovation, 2010(1): 609-639.
- [4] Zhai Shuping, Han Xian, Zhag Xiaolin, et al,. Can Digital Finance Reduce the Risk of Corporate Debt Default[J]. Accounting Studies, 2022(02): 117-131.
- [5] Li Xiaoling, Cui Shulin, Lai Xiaobing. Can Digital Finance Enhance the Value of Listed Companies? Theoretical Mechanism Analysis and Empirical Test[J]. Modern Finance and Economics (Journal of Tianjin University of Finance and Economics), 2020, 40(09): 83-95.
- [6] Zhang Tao. Research on the theoretical interpretation and measurement method of high-quality development[J]. Quantitative Economics, Technical Economics, and Economics, 2020, 37(05): 23-43.