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A Study of the Impact of Digital Transformation on the High-Quality Development of Enterprises

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Abstract

With the continuous advancement of the digital economy, whether it is possible to achieve high-quality development of enterprises with the help of digital technology has become an important issue to be explored. Taking A-share listed companies from 2006 to 2021 as the research sample, we empirically examined the impact and mechanism of digital transformation on the high-quality development of enterprises. The results show that digital transformation significantly promotes the high-quality development of enterprises, in which business model innovation plays a mediating role; the heterogeneity analysis shows that the impact of digital transformation on the high-quality development of enterprises is more significant in non-state-owned enterprises, small and medium-sized enterprises, and non-high-tech enterprises. Therefore, enterprises should actively carry out digital transformation and promote business model innovation with the help of digital technology, so as to improve total factor productivity and achieve high-quality development of enterprises.

Keywords

Digital Transformation, Enterprise High-Quality Development, Enterprise Total Factor Productivity, Business Model Innovation

1. Introduction

High-quality development is the primary task of China's comprehensive construction of a modern socialist country, which mainly covers the three major levels of macro, meso and micro, the enterprise as the micro subject of macro economic and social development, the basic organisation of meso industry. High-quality development is a comprehensive reflection of its low input of factors of production, high efficiency of resource allocation, low cost of resources and environment, and good economic and social benefits, and the realisation of the enterprise's high-

quality development is a key factor driving rapid economic growth in China. The realisation of high-quality development of enterprises is the source of power to promote China's rapid economic growth. The digital economy has become an important engine for "stabilizing growth" and "promoting transformation", effectively driving endogenous high-quality growth. In the context of the digital economy, data resources have become a key production factor, and the data resource industry chain is constantly improving, so that enterprises can fully explore and make use of the value of data (Cao & Zeng, 2024). At the same time, enterprises are also transforming in response to the wave of digitisation, and with the help of digital technologies such as big data, artificial intelligence and the Internet of Things (IoT), they are making all-around optimisation and changes in organisational structure and business processes, so that the production and operation of the enterprise, its information structure and management methods have profoundly changed. The production operation, information structure and management style of enterprises have been profoundly changed, which is conducive to the enhancement of productivity, the creation of new values and advantages, and thus the achievement of high-quality development.

Therefore, this paper takes A-share listed companies from 2006 to 2021 as the research samples and uses the double fixed-effect model to empirically study the relationship between digital transformation and high-quality development of enterprises on the basis of previous studies and further verifies the "digital transformation - business model innovation - high-quality development of enterprises" by analyzing the impact of digital transformation on value proposition, value creation and delivery, and value acquisition, which enriches the research in related fields.

2. Theoretical Analysis and Research Hypothesis

2.1. Digital Transformation and Enterprise High-Quality Development

Enterprise digital transformation refers to the process in which enterprises change the production system, business activities, corporate culture, etc., with the help of cutting-edge digital technology, so as to achieve the goal of improving quality and efficiency (Lu et al., 2023). First of all, digital transformation can reduce costs and optimize resource allocation efficiency. Enterprises will use the Internet, artificial intelligence, and other digital technologies in the production and operation process, reducing the waste of resources and ineffective occupation, reducing production costs, labor costs, and operation and maintenance costs (Du & Liu, 2023); business link integration of digital technology makes the business process data and visualization, which is conducive to alleviating the asymmetry of intra-enterprise and inter-enterprise information, reducing the cost of enterprise information collection and processing, and improving the efficiency of resource utilization and communication efficiency with the outside (He & Liu, 2019). Secondly, digital transformation can alleviate financing constraints. In the context of

digitalization, digital transformation can help enterprises enjoy policy benefits, and the Internet platform broadens the financing channels of enterprises, and the use of digital technology enables enterprises to obtain useful financing information and get out of the financing difficulties (Hua et al., 2022). which brings development funds to enterprises, provides strong support for enterprises to expand production scale, carry out innovative research and development, and cope with the challenges of risks, thus effectively improving the total factor productivity of enterprises. productivity. Finally, digital transformation can promote enterprise innovation. Enterprises use digital tools and platforms to promote product, technology, service, and process innovation (Gaglio et al., 2022) (Radicic & Petković, 2023); intelligent tools share human work so that knowledge-based talents have more energy to devote to innovation activities, and the combination of innovation activities and digital technology can enhance innovation efficiency (Zhang et al., 2023). Therefore, hypotheses are proposed:

H1: Digital transformation can promote high-quality development of enterprises.

2.2. Digital Transformation, Business Model Innovation and Enterprise High-Quality Development

A business model is a conceptualized model for enterprises to obtain value by arranging internal and external resources and carrying out relevant activities, which is mainly composed of value proposition, value creation and delivery, and value acquisition, etc. Business model innovation is the innovation of value, in which the logic of value creation, proposition and provision involves the enterprise's governance system and organisational culture, and is the reorganisation and optimisation of business elements in the whole process of production, sales and R&D (Xu, 2024). Under the background of the digital economy, enterprises use big data, the Internet of Things, and other technologies to carry out transformation and are able to form a more flexible, open, and shared business model, improve productivity and core competitiveness, and then achieve the enterprise's high-quality development (Liu et al., 2023).

The impact of enterprise digital transformation on business models is mainly in the following three aspects: first, digital transformation can clarify the enterprise value proposition. The value proposition refers to the products and services that an enterprise provides to meet the needs of its target users. In the digital era, the business model of enterprises has changed from "product and service-led logic" to "customer-led logic", i.e., to provide solutions based on customer value, emphasising the value proposition of customer experience (He et al., 2023), and the enterprise collects and analyses customer-related data with the help of big data technology, which can master multi-dimensional value propositions. With the help of big data technology to collect and analyse customer-related data, enterprises can grasp the characteristics of customers in multiple dimensions, accurately segment customer groups, and explore the explicit and invisible needs of

customers, so as to improve customer management (Wang & Zhu, 2022). Second, digital transformation can optimize the enterprise value creation and delivery mode. Value creation and delivery refers to the process of creating and coordinating relationships between various parties, transforming resources into value and delivering it to consumers. Enterprise digital transformation can community management of consumers and respond to consumer feedback in a timely manner; it can strengthen upstream and downstream information sharing in the supply chain, optimize business processes, and improve the efficiency of supply chain resource allocation (Wu & Yao, 2023); it can empower employees' value creation through the delivery of corporate goals and digital assessment; it can provide managers with effective information to make decision-making more scientific and intelligent, so as to achieve the enterprise and consumers, suppliers, employees and managers to achieve value co-creation between enterprises and consumers, suppliers, employees and managers (Bai et al., 2023). New business models such as sharing economy, subscription model and e-commerce ecosystem, as well as online and offline omni-channels, have changed the transaction model of enterprises and brought new value growth opportunities (Li, 2022). Third, digital transformation can optimise the enterprise value capture model. Value capture refers to the process or mechanism by which an enterprise obtains revenue and distributes it to stakeholders. Digital transformation disintermediates the value network, shortens the value acquisition chain, and reduces costs, while incentivising consumers, suppliers, shareholders, and other stakeholders to create more value (Qian & Sun, 2021), and facilitating cross-border integration of enterprises to obtain diversified revenues and achieve economic benefits (Yi et al., 2021).

Enterprise business model innovation can reduce enterprise transaction costs, procurement costs and operating costs, and gain cost advantages (Chen & Xu, 2023); secondly, business model innovation builds a complete network of products, consumers, markets and supply chains, which can improve the internal and external management efficiency and operational efficiency of the enterprise (Wang & Zhou, 2022); lastly, business model innovation is conducive to the enterprise's access to external information and prediction of the market environment, so as to identify external opportunities and promote enterprise innovation (Li & Li, 2021). Based on the above analyses, the following hypotheses are proposed.

H2: Digital transformation achieves high-quality development of enterprises by promoting business model innovation.

3. Research Design

3.1. Sample Selection and Data Source

Considering the availability and research value of data, this paper selects the data of A-share listed companies from 2006 to 2021 as the initial sample, in which the digital transformation data come from the annual reports of enterprises, and other data such as company finance come from the database of Cathay Pacific. In order

to make the regression results more reliable, the samples are treated as follows: Due to the special structure of financial industry financial reports, the samples of this industry are excluded to avoid affecting the empirical results; ST and *ST enterprises and the data with missing key variables are excluded; only samples that have existed for at least five consecutive years are retained; and the continuous variables are shrunken by 1 percent on both sides. The final result is 24,307 observations for 2149 firms.

3.2. Variable Measurement

1) Explained variable: enterprise high-quality development

This paper takes enterprise total factor productivity (TFP) as a measure of high-quality development. TFP is a comprehensive indicator that includes all input factors in production and operation in the calculation, and it can reflect the enterprise's resource allocation, the level of production technology, and organizational and management levels, etc., which is a more reasonable reflection of the enterprise's high-quality development level. This paper uses the LP method to measure this variable and uses the OP method for robustness testing, drawing on Lu Xiaodong and Lian Yujun's approach (Lu & Lian, 2012). The measurement method is shown in the following Equation (1):

$$\ln Y_{it} = \varphi_0 + \varphi_1 * \ln K_{it} + \varphi_2 * \ln L_{it} + \varphi_3 * \ln M_{it} + \varphi_4 * \ln I_{it} + \varepsilon_{it} \quad (1)$$

where Y_{it} denotes firm i's total output (operating income) in year t, K_{it} is firm i's capital input (net fixed assets) in year t, L_{it} is firm i's labor input (number of employees) in year t, M_{it} is firm i's intermediate inputs (operating costs + overheads + selling expenses − depreciation and amortization − cash paid to employees) in year t, and I_{it} is firm i's acquisition of fixed assets, intangible assets, and other long-term assets paid in cash, the residual term obtained from performing the regression is the required total factor productivity of the firm.

2) Core explanatory variable: digital transformation (DigT)

The measurement of the variable of digital transformation of enterprises by previous researchers suffers from the defects of single index latitude and limited sample size, in order to make the variable more scientific and reasonable, this paper draws on Yuan Chun's methodology, and measures the textual analysis by combining with the digital transformation lexicon (Yuan et al., 2021). Firstly, the keywords related to enterprise digital transformation are screened out by searching on the officially released national policy documents, and the software is used to identify and process the higher frequency words to form the enterprise digital terminology dictionary, and then based on the method of machine learning, we count the total number of word frequencies in the annual reports of each enterprise and count the frequency of appearing in the terms of the digital terminology dictionary, and finally, we calculate the frequency of the appearing of the words related to the enterprise's digital transformation, and multiply the value by 100 as an indicator of the degree of enterprise digitalisation. The value is multiplied by 100 as an indicator of the degree of enterprise digital transformation. The larger the DigT

indicator number, the higher the degree of enterprise digitalisation.

3) Control variables

In order to improve the fit of the regression, enterprise size (Size) and gearing ratio (Lev) were selected as control variables. Table 1 reports the specific definitions and descriptive statistics of each variable, in which the minimum value of the degree of digital transformation of enterprises is 0, the maximum value is 12.05, and the mean value is only 0.87, which indicates that there are large differences between enterprises and the overall degree of transformation is low, and the distribution of data of control variables such as the gearing ratio and the return on assets is in line with expectations.

3.3. Model Design

This paper constructs Equation (2) as the basic regression model.

$$TFP_{it} = \alpha + \beta DigT_{it} + \gamma Controls_{it} + \mu_i + v_t + \varepsilon_{it} \quad (2)$$

where TFP is the explanatory variable, DigT is the core explanatory variable, i denotes individual firms, and t marks the year, Controls is the set of control variables, μ and v are the individual and year fixed effects, and ε_{it} is the random disturbance term.

Table 1. Definition of variables and descriptive statistics.

Variable Code	Variable Name	Variable Definition	Mean	Standard Deviation	Minimum Value	Maximum Value
TFP	High-quality development of enterprises	Total factor productivity of enterprises calculated by LP method	8.50	1.021	4.74	13.23
DigT	Digital Transformation	Frequency of digitisation-related terms in annual reports of enterprises*100	0.87	1.015	0	12.05
Size	Firm size	Logarithm of number of employees	7.70	1.194	2.20	12.82
Lev	Gearing ratio	Total liabilities/total assets	0.42	0.194	0.04	0.88
ROA	Return on Assets	Net Profit/Total Assets	0.04	0.056	−0.38	0.22
NCF	Cash flow ratio	Net cash flow from business operations/total assets	0.05	0.069	−0.74	0.65
BOSize	Board size	Number of board members	8.71	1.728	0	18
SOE	Nature of ownership	SOE takes the value of 1, otherwise 0	0.40	0.490	0	1

4. Empirical Analyses

4.1. Basic Regression Analysis

Table 2 presents the results of the asymptotic regressions based on Equation (2). Column (1) considers only the core explanatory variables; column (2) adds firm-level control variables; and column (3) performs individual and year double-fixing, from which the Hausman test is used to determine which is the optimal regression model, the fixed-utility model or the random-utility model. The initial

hypothesis was that the random effects model was superior to the fixed effects model. A Hausman test was conducted and Prob > chi^2 = 0.0000 is less than 0.1, indicating that the original hypothesis is a small probability event and the fixed utility model should be chosen for regression in this study. Column (3) shows that the coefficient results of the core explanatory variables are all significantly positive at the 1% level, indicating that digital transformation can significantly promote the high-quality development of enterprises, and hypothesis 1 is validated. The regression results of control variables show that enterprises with large scale, sufficient liquidity and high profitability have higher total factor productivity, which is consistent with the findings of other scholars.

Table 2. Benchmark regression results.

	(1) TFP	(2) TFP	(3) TFP
DigT	0.035***	0.097***	0.044***
	(5.323)	(18.942)	(4.257)
Size		0.371***	0.255***
		(67.779)	(12.848)
Lev		2.106***	0.998***
		(60.568)	(15.425)
Roa		3.759***	2.394***
		(27.718)	(20.380)
NCF		−0.378***	0.424***
		(−4.297)	(6.631)
BOSize		−0.013***	0.017***
		(−4.169)	(3.164)
SOE		0.124***	−0.029
		(10.933)	(−0.693)
Individual fixed	No	No	Yes
Year fixed	No	No	Yes
Adj. R^2	0.001	0.487	0.538

Note: ***, ** and * denote significance levels of 1 per cent, 5 per cent and 10 per cent, respectively; T-values under the computationally robust standard errors are in parentheses, as in the table below.

4.2. Endogenous Processing

1) Two-stage least squares method

Using the mean value of the degree of digital transformation of enterprises other than ours in our industry in the same year as the instrumental variable (iv),

the first stage uses the core explanatory variables to regress the instrumental variables and other control variables to obtain the fitted value, and the second stage uses this fitted value as the core explanatory variables to regress. The results are shown in Table 3. The effect of iv on DigT in Column (1) is significantly positive at the 1% level, and iv passes the weak instrumental variable test and the non-identifiable test; the coefficient of DigT in Column (2) is still significantly positive, i.e., the conclusion that digital transformation promotes high-quality development of enterprises is valid.

2) Explanatory variables lag one period.

Since there may be reverse causality between digital transformation and total factor productivity improvement, i.e., enterprises with high total factor productivity are more inclined to carry out digital transformation, in order to control the reverse causality, this paper refers to the practice of Woo Keung, lagging the data, and regressing the core explanatory variables one period lagged (L.DigT), and the results are shown in Column (3) of Table 3, and the coefficients of the regression coefficients are still significantly positive, which indicates that the preceding conclusion is robust. Conclusion is robust.

Table 3. Endogeneity treatment and robustness tests.

	(1) DigT	(2) TFP	(3) TFP	(4) TFP_OP	(5) TFP
iv	0.999***				
	(70.57)				
DigT		0.143***		0.041***	
		(18.32)		(4.20)	
L.DigT			0.074***		
			(5.16)		
DigW					0.001**
					(1.97)
Control variables	yes	yes	yes	yes	yes
Individual fixed	yes	yes	yes	yes	yes
Year fixed	yes	yes	yes	yes	yes
Weak instrumental variables test	4980.72				
Non-identifiable test	1265.878				
	[0.000]				
R-squared	0.485	0.486	0.509	0.434	0.520

4.3. Robustness Testing

1) Replacement of explanatory variables. The regression in the previous section was mainly measured using the LP method, in order to further verify the robustness of the conclusions, the OP method (which introduces the enterprise's export

behavioural decision-making into the model) was considered to measure the explanatory variables, and the regression results are shown in Column (4) in **Table 3**, with a regression coefficient of 0.041 (significant at the 1% level) for DigT, which is a robust empirical result.

2) Replacement of explanatory variables. Drawing on the method of Wu Fei et al, comprehensive academic literature and policy documents to build a feature thesaurus containing artificial intelligence, big data and other aspects related to the digital transformation of enterprises, using python to crawl the annual reports of listed enterprises, according to the feature thesaurus of the digital transformation of the annual report of the enterprise search, matching, word frequency statistics, and finally logarithmic processing to get the digital transformation indicators, which will be used as the core explanatory variables of this paper. The variables are re-regressed, and the results are shown in column (5) in **Table 3**, and the coefficient of DigW is significantly positive at the 5% level, then hypothesis 1 is still validated to hold.

4.4. Mechanism Testing

According to the theoretical analysis in the previous section, digital transformation can optimize the production process, form new forms of customer engagement through the platform, and effectively manage the multi-party relationships of suppliers and customers, innovate business models, thereby enhancing total factor productivity and achieving high-quality development of enterprises. In order to verify the intermediary role of business model innovation, this paper uses the causal stepwise regression method, i.e., the previous formula (2) combined with the following formulas (3) and (4) for testing. If β_2 and ρ are significant, the intermediary effect is established; at the same time, if β_3 is also significant, then the BMInov is partially intermediary; otherwise, it is fully intermediary. Finally, use the Sobel test for further verification of the intermediary effect.

$$\mathrm{BMInov}_{it} = \alpha_2 + \beta_2 \mathrm{DigT}_{it} + \gamma_2 \mathrm{Controls}_{it} + \mu_i + \nu_t + \varepsilon_{it} \quad (3)$$

$$\mathrm{TFP}_{it} = \alpha_3 + \beta_3 \mathrm{DigT}_{it} + \rho \mathrm{BMInov}_{it} + \gamma_3 \mathrm{Controls}_{it} + \mu_i + \nu_t + \varepsilon_{it} \quad (4)$$

where BMInov is a proxy variable for the intermediary variable business model innovation, considering the data validity and availability, this paper draws on the research of Li Junrui (Li & Bui, 2023) and Liang Li to construct the business model innovation indicator system shown in **Table 4** and uses the entropy value method to calculate the BMInov variable.

BMInov is regressed as a mediator variable combined with the mediation effect model, and the results are shown in **Table 5**. Column (2) is the regression result with business model innovation as an explanatory variable, and the coefficient of enterprises' digital transformation is 0.004 (significant at the 1% level), which indicates that digital transformation can promote business model innovation, and the coefficients of both BMInov and DigT in Column (3) are significantly positive,

Table 4. Description of variables of business model innovation.

Variable Name	Dimension	Indicator	Indicator Description
Business Model Innovation	Value proposition	Innovation support	R&D expenditure/capital investment
		Return on Scale	Return on Total Assets/Average Return on Total Assets of Large Enterprises in Industry
	Value Creation	Supplier Concentration	Top 5 Suppliers Current Purchases/Annual Total Purchases
		Equity-to-debt ratio	Owners' equity/total liabilities
	Value Acquisition	Net Profit Margin on Total Assets	Net Profit/Total Assets
		Year-on-year growth rate of operating income	Current year's operating income/previous year's operating income-1

Table 5. Mechanism test.

	(1) TFP	(2) BMInov	(3) TFP
DigT	0.044***	0.004***	0.043***
	(4.257)	(3.333)	(4.241)
BMInov			0.183*
			(1.783)
Control variables	yes	yes	yes
Individual fixed	yes	yes	yes
Year fixed	yes	yes	yes
Adj. R^2	0.538	0.191	0.538

which indicates that business model innovation can promote total factor productivity, and business model innovation plays a partial mediating effect between enterprise digital transformation and total factor productivity. Sobel test, *P* value is less than 0.05, indicating that the mediating effect is established, that is, digital transformation can promote business model innovation and then achieve high-quality development of enterprises; hypothesis 2 verification is established.

4.5. Heterogeneity Analysis

1) Heterogeneity analysis based on the nature of enterprise property rights

State-owned enterprises and non-state-owned enterprises in the business objectives, management mode, corporate culture, and other aspects of the existence of large differences; this paper, according to the nature of property rights of the sample group regression, the results are shown in **Table 6**. Column (2) in the

Table 6. Heterogeneity analysis.

	(1) State-owned TFP	(2) Non-state owned TFP	(3) Large-scale TFP	(4) Small- and medium-scale TFP	(5) High-tech TFP	(6) Non-high-tech TFP
DigT	0.019	0.062***	0.031**	0.060***	0.038***	0.048***
	(1.198)	(5.205)	(2.235)	(3.382)	(3.724)	(3.721)
Control variables	yes	yes	yes	yes	yes	yes
Individual fixed	yes	yes	yes	yes	yes	yes
Year fixed	yes	yes	yes	yes	yes	yes
Adj. R^2	0.496	0.491	0.543	0.356	0.467	0.446
Test for difference in coefficients between groups	*P*-Value = 0.0014***		*P*-Value = 0.0006***		*P*-Value = 0.0008***	

digital transformation of non-state-owned enterprises has a regression coefficient of 0.062 and is significant at the level of 1%. Column (1) in the Chinese state-owned enterprises does not have a significant effect; through the likelihood of the non-correlation test, we found that the difference between the groups is significant. It may be that state-owned enterprises, due to their organizational structure and business operations, have less reform and innovation, while non-state-owned enterprises obtain economic profits as the business objectives. Through digital transformation, they can effectively reduce costs and improve quality and efficiency, while non-state-owned enterprises have decision-making flexibility and flexibility, which can faster promote digital transformation, so non-state-owned enterprises, compared to state-owned enterprises, will be more inclined to enhance total factor productivity through digital transformation and transformation. The effect is better.

2) Heterogeneity analysis based on firm size

The sample is divided into two categories of large enterprises and SMEs based on the median enterprise size. Columns (3) and (4) in **Table 6** are the results of separate regressions, in which the coefficients of digital transformation are significantly positive, but the enhancement effect of small and medium-sized samples is more significant, and the difference between groups is significant. It may be that small and medium-sized enterprises benefit from their simple organisational structure and rapid response to the market, compared with large enterprises focusing on independent exploration and research and development, small and medium-sized enterprises tend to refer to the ideas and experiences of successful enterprises in the transformation of the industry, and quickly and effectively improve enterprise productivity with the help of digital tools; at the same time, small and medium-sized enterprises have their own resource management capacity is weak, and large-scale delivery capacity is poor, and other issues can be effectively mitigated by digital transformation.

3) Heterogeneity Analysis Based on Enterprise Technology Attributes

Referring to Wu Fei's study, the samples are divided into high-tech enterprises and non-high-tech enterprises according to the industry code to which the enterprises belong, and the regression results of the grouping are shown in **Table 6**. The regression coefficients in columns (5) and (6) are positive at the 1% level, but the non-high-tech samples are more effective in raising productivity, and the difference between the groups is significant. It may be due to the fact that high-tech enterprises are engaged in knowledge-intensive and technology-intensive activities, while most of the non-high-tech enterprises are labor-intensive enterprises, which make profits by providing products and services and carry out digital transformation, which can effectively optimize the business process, strengthen the connection with consumers, suppliers, and so on, and promote the innovation of business models, and then enhance the production and operational efficiency of enterprises (Ren & Deng, 2024).

5. Conclusion and Policy Recommendations

Based on the data of A-share listed companies from 2006 to 2021, this paper empirically investigates the relationship between digital transformation and high-quality development of enterprises. The following main conclusions are drawn: 1) digital transformation can promote the high-quality development of enterprises, and the conclusion still holds after endogeneity treatment and robustness test; 2) digital transformation promotes the innovation of business models mainly by clarifying value propositions and optimising the value creation, delivery and acquisition modes, and then realises the high-quality development of enterprises; 3) digital transformation has a more significant effect on the high-quality development of non-state-owned enterprises, small and medium-sized enterprises (SMEs) and non high-tech enterprises are more effective in enhancing high-quality development.

Based on the above conclusions, the following insights are obtained:

1) National strategies and government policies should provide strong support for enterprise digital transformation. The state should focus on the construction of digital infrastructure, formulate a policy system conducive to the development of the digital economy, and guide enterprises to lay out their business in relevant fields, while the government should help enterprises carry out digital transformation by providing financial support, technical support, and training and education, and at the same time, it should actively optimize the transformation environment and cultivate talents in relevant fields to provide protection for digital transformation. As the effect of digital transformation varies among enterprises with different property rights, scales, and technological attributes, the state and the government should adopt precise measures to help state-owned enterprises, large-scale enterprises, and high-tech enterprises explore appropriate transformation paths and achieve high-quality development of enterprises.

2) Enterprises should actively carry out digital transformation. On the one hand, enterprises should make use of digital technology to carry out business

model innovation from the perspectives of value proposition, creation and delivery, and acquisition, so as to improve total factor productivity and achieve high-quality development. First of all, with the help of big data, algorithms, and other digital technologies to understand consumer demand, to provide customers with personalized products and services, while creating online and offline customer relationship management and service systems, to achieve omni-channel integrated operation; secondly, digitizing the production and operation process of the enterprise, optimizing business processes, improving supply chain operational efficiency, and using technological means to break down information barriers between departments of the enterprise, achieving information sharing; finally, utilizing digital platforms to strengthen cooperation between enterprises and industries, derive other values on the basis of increasing primary revenue, optimize value acquisition models, and achieve business model innovation.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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