current perspective on business operations

E-ISSN:3125-1323

ARTICLE

Digital Transformation and Corporate Tax Avoidance: Evidence from China

Gina Pertiwi Khoerunnisa[1]*

[1] Universitas Jenderal Soedirman; pertiwigina66@gmail.com

* Correspondence Author: pertiwigina66@gmail.com

Abstract

During periods of economic uncertainty, firms frequently engage in tax avoidance strategies to reduce financial burdens and enhance profitability. While such practices may provide short-term benefits for individual firms, they can adversely affect government tax revenues and weaken overall economic stability. Against the backdrop of China's ongoing digital transformation agenda, this study investigates whether corporate digitalization can serve as an effective mechanism for reducing tax avoidance while supporting a more balanced relationship between fiscal sustainability and corporate performance. Using panel data from Chinese listed companies over the period 2012–2022, the findings indicate that digital transformation significantly suppresses tax avoidance behavior and contributes to a healthier tax environment. Further analysis reveals that downside risk, managerial emotional tone, and political cost function as important mediating mechanisms. Specifically, digital transformation discourages tax avoidance by lowering downside risk and reducing political costs; however, it may simultaneously strengthen managerial optimism, which can encourage more aggressive tax-planning behavior. The results also demonstrate that the restraining effect of digital transformation is evident across different types of firms, with stronger impacts observed among small and medium-sized enterprises and non-state-owned firms. Overall, this study provides important policy implications for governments seeking to improve tax governance in the digital era and extends the literature on the relationship between digital transformation and corporate tax behavior.

Keywords: Digital Transformation; Tax Avoidance; Information Asymmetry; Corporate Governance; China

Academic Editor: Daniel Wang

Received: March 8, 2026 | Revised: March 19, 2026 | Accepted: March 23,2026 | Published: April 6, 2026

Citation:Khoerunnisa.G.P. (2026). *Digital transformation and corporate tax avoidance: Evidence from China*. *Current Perspective on Business Operations*, *2*(2), 143–163..

1. Introduction

Tax reduction and tax base expansion policies have long been utilized as macroeconomic instruments to stimulate economic activity during periods of slowdown. Since 2004, China has progressively implemented a series of structural tax reduction and fee alleviation policies designed to lower the effective tax burden on enterprises while simultaneously broadening the tax base and encouraging economic growth (Blaufus et al.,

2013). Despite these policy initiatives, the intended reduction in taxpayers' perceived tax burden has not been fully realized. During economic downturns, the combined effects of tax base expansion and strengthened tax administration have often offset the benefits of tax relief measures, leading firms to perceive little improvement in their overall tax burden (Gorodnichenko & Weber, 2016; Chen et al., 2024). As a consequence, many enterprises have increasingly engaged in tax avoidance activities, creating a situation in which tax revenues continue to grow despite relatively weak macroeconomic performance.

Within modern economic systems, taxes represent one of the primary mechanisms through which governments participate in the allocation of economic resources by providing public goods and establishing institutional frameworks. From the corporate perspective, taxes constitute mandatory cash outflows that directly affect profitability and financial flexibility. Consequently, tax avoidance can be viewed as a strategy that allows firms to retain resources that would otherwise be transferred to the government, thereby increasing internal funds available for future investment and development (Rego & Wilson, 2012). Given that tax payments are generally unavoidable, firms have increasingly considered tax burden minimization as an essential component of financial planning and operational efficiency improvement. Accordingly, tax avoidance has become a common managerial concern across countries and industries.

The complexity of contemporary tax regulations further encourages firms to carefully evaluate available tax planning opportunities. To strengthen competitiveness and maximize shareholder value, organizations continuously adjust their operational and financial strategies to optimize tax outcomes. In practice, firms often pursue a level of tax avoidance that balances the potential benefits of lower tax payments against the associated non-tax costs and risks (Hanlon & Heitzman, 2010; Kim et al., 2011). Such behavior reflects the adaptive nature of corporate decision-making in response to changing institutional and economic conditions, while highlighting the strategic role of taxation in shaping long-term business development.

The rapid expansion of China's digital economy has introduced new dynamics into this process. Emerging technologies such as artificial intelligence (AI) and blockchain (BC) are increasingly embedded within enterprise operations, transforming production, management, and decision-making activities. These technologies have substantially reduced information asymmetry by improving data accessibility, processing capabilities, and organizational transparency. Recognizing the growing importance of digital resources, China officially identified data as a new factor of production in 2019 and has since promoted regulations governing the recognition, measurement, and disclosure of data assets. These developments have significantly enhanced information transparency within corporate governance structures and generated profound changes in organizational management practices (Liu et al., 2011; Yang & Yee, 2022; Zhou et al., 2021). Consequently, digital transformation has emerged as a critical driver of corporate development and competitiveness in the contemporary economy (Guo et al., 2023).

The integration of AI, blockchain, and other digital technologies has fundamentally reshaped the way firms operate. Through access to real-time information and advanced analytical tools, organizations can make more accurate and timely decisions while improving operational efficiency. The recognition of data as a strategic production resource has also compelled firms to rethink traditional resource allocation mechanisms and develop new business models. Moreover, the establishment of formal frameworks for data asset management has strengthened the quality of financial reporting and increased stakeholder confidence. These developments have enabled firms to enhance internal efficiency, adapt more effectively to market changes, and build sustainable competitive advantages in an increasingly digitalized environment.

Although tax avoidance remains an important managerial decision involving trade-offs between costs and benefits (Baderscher et al., 2013; Hanlon & Heitzman, 2010), such

activities are often difficult to observe because they are embedded within routine business operations and obscured by information asymmetry. The increasing transparency associated with digital transformation raises an important question regarding the future of corporate tax behavior. Specifically, can digital transformation influence firms' tax avoidance decisions, and if so, through what mechanisms does this influence occur? Addressing these questions is essential for understanding how technological advancement affects corporate financial behavior in the digital era.

Against this backdrop, the present study investigates the relationship between digital transformation and corporate tax avoidance. Exploring this issue not only facilitates a more accurate assessment of the effectiveness of digital transformation initiatives but also contributes to a deeper understanding of the mechanisms through which digital technologies influence corporate decision-making. Such an examination provides valuable insights into how enterprises operating in emerging markets adapt their tax strategies in response to technological change and increasing information transparency.

To achieve these objectives, this study utilizes a sample of Chinese A-share listed companies during the period 2016–2022. The analysis focuses on the impact of digital transformation on corporate tax avoidance while further examining the underlying transmission mechanisms, heterogeneity effects, and broader economic consequences. This research offers several important contributions.

First, in the context of China's ongoing efforts to promote digital development, this study enriches the growing literature on the economic consequences of corporate digital transformation. By examining tax avoidance from a micro-level perspective, it extends current knowledge regarding the financial implications of digital transformation and provides empirical evidence supporting public policies aimed at accelerating digital adoption among enterprises.

Second, this study sheds light on the mechanisms through which digital transformation affects tax avoidance behavior. By integrating perspectives related to corporate operational strategies and long-term development objectives, the analysis reveals the previously unexplored pathways linking digital transformation and tax planning decisions. In doing so, it contributes to the literature on corporate tax behavior while offering practical insights for improving tax administration and regulatory effectiveness.

Finally, this study provides a more comprehensive understanding of the evolving relationship between technological innovation and corporate taxation in the digital era. The findings offer valuable implications for policymakers, regulators, and business practitioners by demonstrating how digital transformation reshapes tax-related decision-making and contributes to a more transparent and efficient economic environment. Through this integrated perspective, the study advances understanding of an increasingly important phenomenon at the intersection of digitalization, corporate governance, and taxation.

2. Materials and Methods

The rapid advancement of digital technologies, including artificial intelligence (AI), blockchain (BC), cloud computing (CC), and big data (BD), has fundamentally transformed how organizations generate, process, store, and disseminate information. These technologies have emerged as key drivers of organizational innovation and business transformation by enhancing operational efficiency, strengthening information accessibility, and facilitating data-driven decision-making processes (Wang & Hajli, 2017). In China, the formal recognition of data as the seventh production factor, alongside labor, capital, land, knowledge, technology, and management, has accelerated the transition toward a digital economy. This development has significantly altered the economic foundations underlying corporate operations and strategic decision-making, creating a new business environment in which digital transformation plays a central role.

From the perspective of principal–agent theory, the separation between ownership and managerial control creates opportunities for managers to pursue actions that maximize their personal interests. Tax avoidance represents one such strategic behavior because it can increase after-tax profits, improve cash flow, and enhance firm value. In organizations characterized by substantial information asymmetry and weak governance structures, managers may benefit from tax avoidance activities while concealing related information from shareholders and regulatory authorities. Such practices can reduce financial transparency, distort the quality of reported information, and weaken monitoring effectiveness, ultimately affecting the long-term sustainability of corporate development. Therefore, firms must carefully balance the benefits of tax savings against the potential costs associated with tax avoidance behavior.

Previous studies suggest that digital transformation can strengthen corporate governance mechanisms and improve the internal information environment of firms (Li et al., 2021; Plekhanov et al., 2023). Through enhanced information-processing capabilities, digital technologies increase organizational transparency, facilitate real-time monitoring, and reduce information asymmetry between managers and stakeholders. Digital transformation also enables firms to integrate business processes, improve data accessibility, and support more effective managerial decision-making (Verhoef et al., 2021). As organizational information becomes more transparent and traceable, managerial opportunities to engage in opportunistic behavior, including aggressive tax planning, are expected to decline.

The theoretical foundation of this study is rooted in information processing and information asymmetry perspectives. Digital transformation enhances an organization's ability to collect, integrate, analyze, and utilize information, thereby improving decision quality and reducing informational inefficiencies. By leveraging digital technologies, firms can overcome managerial cognitive limitations and make decisions based on real-time information and advanced analytical capabilities (Anderson et al., 2003). During periods of economic uncertainty, firms often face stronger incentives to preserve financial resources through tax avoidance strategies. However, increased transparency resulting from digital transformation can constrain such behavior by strengthening monitoring mechanisms and reducing managerial discretion. Consequently, digital transformation is expected to promote greater financial transparency while simultaneously reducing corporate tax avoidance.

Building on these theoretical arguments, digital transformation can be viewed as an important governance mechanism that discourages opportunistic managerial behavior and improves information transparency. Firms with higher levels of digital transformation are therefore expected to exhibit lower levels of tax avoidance compared with firms relying on conventional operational systems. Accordingly, the following hypothesis is proposed:

H: Digital transformation negatively affects corporate tax avoidance.

To examine this relationship, the study focuses on Chinese A-share listed companies and investigates how digital transformation influences corporate tax avoidance behavior. The independent variable is digital transformation (DITR), which reflects the extent to which firms adopt and utilize digital technologies in their operations. Following Yang and Yee (2022) and Zhou et al. (2021), digital transformation is measured using a text-analysis approach based on annual reports. The measurement framework incorporates both underlying digital technologies, including artificial intelligence, blockchain, cloud computing, and big data, as well as practical technology applications embedded within business operations. Annual reports are collected and processed using Python-based web scraping and text mining techniques. Relevant keywords associated with digital technologies are identified, counted, and aggregated to construct a comprehensive digital transformation index. A logarithmic transformation is subsequently applied to reduce data skewness and improve measurement reliability.

The dependent variable is tax avoidance (TA), which reflects the extent to which firms reduce their effective tax burden through tax-planning activities. Following Sun and Peng (2024) and the framework developed by Desai and Dharmapala (2006, 2009), tax avoidance is estimated using the residual component of an overall tax burden model. Unlike traditional approaches that focus solely on corporate income tax, this measure incorporates both income tax and value-added tax considerations, thereby providing a more comprehensive representation of tax-planning behavior within the Chinese tax system. The residual component captures the portion of the overall tax burden that cannot be explained by accrual-based profits and changes in operating income, serving as a proxy for corporate tax avoidance activities.

To enhance model accuracy and reduce estimation bias, several control variables are incorporated into the analysis. These include firm size, ownership structure, financing constraints, working capital growth, capital intensity, equity balance degree, book-to-market ratio, and CEO duality. Industry and year effects are also included to account for sectoral and temporal variations that may influence corporate tax behavior.

The empirical analysis utilizes a balanced panel dataset consisting of Chinese A-share listed companies from 2016 to 2022. Financial and insurance firms are excluded due to their unique regulatory environments and accounting characteristics. Additional screening procedures remove newly listed firms, companies under special treatment (ST and *ST), firms reporting negative profits or abnormal tax expenses, and observations with incomplete information. Following these procedures, the final sample consists of 9,009 firm-year observations representing 1,287 listed companies. Financial data are obtained from the China Stock Market and Accounting Research (CSMAR) database, while digital transformation indicators are extracted from annual reports. To minimize the influence of extreme values, all continuous variables are winsorized at the 1st and 99th percentiles.

This study adopts a quantitative research design using panel data to examine the impact of digital transformation on corporate tax avoidance among Chinese listed companies. The sample consists of A-share firms listed on the Shanghai and Shenzhen Stock Exchanges during the period 2016–2022. To ensure data consistency and comparability, several screening procedures were applied. Firms operating in the financial and insurance industries were excluded because of their distinct accounting standards and regulatory environments. Companies that conducted initial public offerings (IPOs) during the observation period were removed due to potential structural changes that could affect financial reporting and tax behavior. In addition, firms designated as ST or *ST were excluded because these companies are subject to special treatment resulting from financial distress or operational irregularities. Observations with negative total profits, negative income tax expenses, or incomplete financial information were also removed. After applying these selection criteria, the final sample consisted of 9,009 firm-year observations representing 1,287 listed companies.

Financial data were obtained from the China Stock Market and Accounting Research (CSMAR) database. Information related to digital transformation was extracted from firms' annual reports through text-mining techniques. To reduce the influence of extreme observations and improve estimation reliability, all continuous variables were winsorized at the 1st and 99th percentiles.

Digital transformation (DITR) was employed as the independent variable. Following Yang and Yee (2022) and Zhou et al. (2021), digital transformation was measured through textual analysis of annual reports. The measurement framework includes references to artificial intelligence (AI), blockchain (BC), cloud computing (CC), big data (BD), and practical technology applications (PAT). Annual reports were collected using Python-based web scraping techniques and analyzed through keyword frequency identification. The frequencies of digital transformation-related terms were aggregated to construct a

comprehensive digital transformation index, which was subsequently transformed using the natural logarithm to reduce skewness.

Tax avoidance (TA) was used as the dependent variable. Following Desai and Dharmapala (2006, 2009) and Sun and Peng (2024), tax avoidance was estimated using the residual component of the overall tax burden model. This approach incorporates both corporate income taxes and value-added taxes, thereby providing a more comprehensive representation of tax planning behavior within the Chinese tax system. The overall tax burden model is specified as follows:

$$OTB_{it} = \alpha^0 + \alpha^1 ACPR_{it} + \alpha^2 CIOI_{it} + \theta' \Sigma Controls_{it} + \Sigma Ind + \Sigma Year + \mu_i + \varepsilon_{it} \quad (1)$$

where OTB represents the overall tax burden, calculated as total taxes paid minus tax refunds received as reported in the statement of cash flows. ACPR denotes accrued profit, measured as the difference between net profit and operating cash flow divided by total assets. CIOI represents the change in operating income, calculated as the natural logarithm of current-year operating income divided by operating income in the previous year. Industry and year effects are incorporated to control for sectoral and temporal heterogeneity.

The residual component reflects the difference between the actual tax burden and its expected level based on firm operating conditions. Larger residual values indicate a higher degree of tax avoidance.

To test the proposed hypothesis regarding the effect of digital transformation on tax avoidance, the following baseline regression model was estimated:

$$TA_{it} = \beta^0 + \beta^1 DITR_{i,t-1} + \theta' \Sigma Controls_{it} + \Sigma Ind + \Sigma Year + \varphi_i + \mu_{it} \quad (2)$$

where TA denotes tax avoidance, DITR represents the level of digital transformation, and Controls refers to the set of firm-level control variables. Following prior studies, the digital transformation variable was lagged by one period to account for the delayed effect of digital initiatives and to mitigate potential reverse-causality concerns. Industry and year dummy variables were included to absorb unobserved heterogeneity across industries and time periods.

Several control variables were incorporated to improve model validity and reduce omitted-variable bias. Firm size (SIZE) was measured as the natural logarithm of total assets. Ownership structure (NPR) distinguished state-owned enterprises from non-state-owned enterprises. Financing constraints (FIRS) were measured using the debt-to-asset ratio. Additional controls included working capital growth rate (WCGR), capital intensity (CAIN), equity balance degree (EBD), book-to-market ratio (B/M), and CEO duality (DU). Detailed definitions of all variables are presented in Table 1.

Prior to hypothesis testing, diagnostic analyses were conducted. Correlation analysis was performed to assess the relationships among variables and provide preliminary evidence regarding the proposed association between digital transformation and tax avoidance. Multicollinearity was evaluated using the Variance Inflation Factor (VIF). The results indicated that all VIF values were substantially below the threshold value of 10, suggesting that multicollinearity was not a concern. Furthermore, unit root tests were conducted to assess the stationarity of the panel data. The results confirmed that all variables were stationary. Finally, a Hausman specification test was performed to determine the most appropriate estimation approach. The test results supported the use of a fixed-effects panel model, indicating that fixed-effects estimation was the most suitable method for examining the relationship between digital transformation and corporate tax avoidance.

Table 1. Definition of Main Research Variables

Variable	Description
Panel A: Primary Research Variables	
DITR	A composite digital transformation score for AI, BC, CC, BD, and PAT obtained using Python-based web crawling and text analytics from the annual reports of sample companies (see Section 3.2.1 for calculation details).
AI	Artificial intelligence score for the digital transformation system.
BC	Blockchain score for the digital transformation system.
CC	Cloud computing score for the digital transformation system.
BD	Big data score for the digital transformation system.
PAT	Practical application of technology score for the digital transformation system.
TA	Tax avoidance measured using the residuals from Equation (1), following Desai and Dharmapala (2006, 2009) and Sun and Peng (2024).
OTB	Various taxes paid minus tax refunds received, as disclosed in the statement of cash flows.
ACPR	The ratio of the difference between net profit and net cash flow from operating activities to total assets.
CIOI	The natural logarithm of the ratio of current-year operating income to lagged-year operating income.
Panel B: Control Variables	
SIZE	Corporate size, measured as the natural logarithm of total assets at the beginning of the period.
NPR	Nature of property rights; equals 1 if the firm is controlled by a state-owned enterprise and 0 otherwise.
FIRS	Financing constraints, measured as total debt divided by total assets.
WCGR	Working capital growth rate, measured as the natural logarithm of the ratio of current-year operating income to lagged-year operating income.
CAIN	Capital intensity, measured as investment in fixed assets scaled by operating income.

Variable	Description
EBD	Ratio of the combined shareholdings of the second to fifth largest shareholders to the shareholding of the largest shareholder.
DU	CEO duality; equals 1 if the chairman and CEO are the same person and 0 otherwise.
B/M	Book-to-market ratio, measured as the book value of equity divided by the market value of common shares.
Ind	Industry dummy variable; equals 1 if the firm belongs to a particular industry classification (excluding finance and insurance), based on the CSRC Industry Classification Guidelines (2012 revision).
Year	Year dummy variable; equals 1 for the corresponding year and 0 otherwise.

Table 2. Correlation Coefficient Matrix of the Primary Variables

Variable	(1) TA	(2) DITR	(3) OTB	(4) ACPR	(5) CIOI	(6) SIZE	(7) NPR	(8) FIRS	(9) WCGR	(10) CAIN	(11) EBD	(12) DU	(13) B/M
(1) TA	1												
(2) DITR	-0.052*	1											
(3) OTB	0.966*	-0.074*	1										
(4) ACPR	0.007	-0.011	0.120*	1									
(5) CIOI	-0.006	-0.024	-0.001	0.013	1								
(6) SIZE	0.272*	0.097*	0.013	-0.035*	0.013	1							
(7) NPR	0.021	-0.014*	-0.013	0.009	-0.005	0.189*	1						
(8) FIRS	0.045*	0.020	0.145*	-0.031*	0.020*	0.413*	0.117*	1					
(9) WCGR	0.056*	0.019	-0.038*	-0.016*	-0.002	0.124*	0.028*	0.198*	1				

Variable	(1) TA	(2) DITR	(3) OTB	(4) ACPR	(5) CIOI	(6) SIZE	(7) NPR	(8) FIRS	(9) WCGR	(10) CAIN	(11) EBD	(12) DU	(13) B/M
(10) CAIN	0.006	-0.010	0.017	0.055*	0.057*	0.013	-0.014	-0.035*	-0.011	1			
(11) EBD	-0.001	0.077*	-0.053*	0.001	0.019	0.002	-0.217*	-0.013	-0.015	0.031*	1		
(12) DU	-0.052*	0.088*	-0.017	0.026*	0.001	-0.095*	-0.276*	-0.045*	-0.020	-0.004	0.065*	1	
(13) B/M	0.006	-0.014	-0.001	0.008	-0.013	0.134*	0.076*	-0.499*	-0.035*	-0.009	-0.028*	-0.062*	1

Table 3. Variance Inflation Factor (VIF) Test Results of the Primary Variables

Variable	VIF
DITR	1.05
SIZE	1.54
NPR	1.19
FIRS	1.98
WCGR	1.00
CAIN	1.01
EBD	1.06
DU	1.09
B/M	1.67
Mean	**1.29**

3. Results

3.1. Tax Avoidance Estimation

The estimation results of Equation (1) are presented in Table 4. The model was estimated using a two-way fixed-effects specification following the Breusch–Pagan and Hausman tests. The findings indicate that the explanatory variables account for only a limited proportion of the variation in the overall tax burden (R^2 = 3.9%), suggesting that a substantial portion remains unexplained. Consequently, the residual component captures the unexplained portion of tax payments and serves as a proxy for tax avoidance behavior. Consistent with the framework proposed by Desai and Dharmapala (2006, 2009) and further adapted by Sun and Peng (2024), the residuals represent the portion of the overall tax burden that cannot be explained by normal business activities and financial performance. The findings indicate that tax avoidance behavior remains prevalent among Chinese listed firms during the sample period. Furthermore, the distribution of tax avoidance values presented in Appendix A confirms that the estimated residuals provide a reliable proxy for measuring corporate tax avoidance. Accordingly, the tax avoidance variable constructed through Equation (1) is suitable for subsequent empirical analyses.

Table 4. Tax Avoidance Estimation Results

Variable	OTB
ACPR	0.015*** (5.75)
CIOI	0.003 (0.76)
SIZE	-0.004*** (-3.50)
FIRS	-0.031*** (-6.72)
WCGR	-11.177*** (-5.30)
EBD	-0.003** (-2.16)
DU	0.001 (1.36)
B/M	-0.021*** (-6.63)
Industry Fixed Effects	Yes
Year Fixed Effects	Yes
Constant	0.132*** (6.05)
N	**9009**
R^2	**3.90%**
F-statistics	**28.17***
Breusch–Pagan Test	**9273.54***
Hausman Test	**86.89***
RSS	**2.3292**
MSS	**0.0946**

Notes: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. t-statistics are reported in parentheses. Variable definitions are provided in Table 1.

3.2. Baseline Regression Results

Table 5 reports the regression results examining the impact of digital transformation on tax avoidance. The coefficient of digital transformation (DITR) is negative and statistically significant, indicating that digital transformation significantly reduces corporate tax avoidance. Specifically, a 1% increase in digital transformation is associated with approximately a 1.2% decline in tax avoidance. Therefore, the proposed hypothesis is supported.

These findings suggest that digital transformation improves information transparency and strengthens corporate governance mechanisms, thereby reducing managerial incentives to engage in aggressive tax-planning activities. The result is consistent with prior studies demonstrating that digital transformation enhances internal information environments and governance effectiveness (Li et al., 2021; Plekhanov et al., 2023). Furthermore, digital transformation improves organizational information-processing capabilities, facilitates timely access to strategic information, and enhances managerial decision-making quality (Verhoef et al., 2021). As a result, managers face greater scrutiny and accountability, reducing opportunities to engage in opportunistic tax behavior.

Additional analysis shows that all components of digital transformation, including artificial intelligence (AI), blockchain (BC), cloud computing (CC), big data (BD), and practical technology applications (PAT), significantly reduce tax avoidance. Among these dimensions, blockchain exhibits the strongest constraining effect, highlighting the importance of transparency, traceability, and information immutability in promoting tax compliance and limiting aggressive tax-planning practices.

Table 5. Baseline Regression Results

Variables	**TA**	**Digital Transformation Metrics System**				
	TA	TA	TA	TA	TA	TA
DITR	-0.012*** (-2.63)					
AI		-0.001** (-2.03)				
BC			-0.004** (-1.98)			
CC				-0.001** (-2.00)		
BD					-0.001** (-1.97)	
PAT						-0.001*** (-2.62)
SIZE	0.005*** (4.20)	0.003 (0.26)	0.001 (0.55)	0.001 (0.18)	0.002 (0.33)	0.002 (0.21)
FIRS	0.004 (0.79)	0.001 (0.14)	0.002 (0.72)	0.003 (0.38)	0.002 (0.47)	0.004 (0.10)
WCGR	0.412 (0.20)	0.927 (0.45)	0.932 (1.30)	0.949 (0.46)	0.922 (1.22)	0.905 (0.44)
CAIN	-0.002 (-0.73)	-0.001 (-0.19)	-0.001 (-0.48)	-0.001 (-0.19)	-0.002 (-0.92)	-0.004 (-0.15)
NPR	-0.002 (-0.04)	-0.001 (-0.50)	-0.003 (-1.08)	-0.001 (-0.53)	-0.002 (-0.62)	-0.001 (-0.60)
EBD	0.002 (0.18)	0.001 (0.66)	0.003 (-0.54)	0.001 (0.67)	0.002 (0.45)	0.001 (0.67)
DU	-0.004 (-0.42)	-0.001 (-0.11)	-0.002 (-0.29)	-0.001 (-0.19)	-0.002 (-0.33)	-0.001 (-0.11)
B/M	0.001 (0.18)	0.001 (0.37)	0.002 (0.42)	0.001 (0.30)	0.002 (0.52)	0.001 (0.28)
Ind	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
cons	-0.094*** (-3.10)	0.113*** (4.08)	0.130*** (3.29)	0.013 (0.48)	0.001 (0.67)	0.011 (0.41)

Variables	TA	Digital Transformation Metrics System				
N	**9009**	**9009**	**9009**	**9009**	**9009**	**9009**
R^2	**4.72%**	**3.10%**	**5.36%**	**3.10%**	**5.48%**	**3.15%**
F statistics	**9.79***	**8.05***	**12.53***	**8.05***	**16.63***	**8.18***
B-P test	**9267.01***	**8933.71***	**3993.91***	**8982.24***	**4389.50***	**9155.60***
Hausman test	**119.59***	**178.02***	**102.09***	**175.45***	**61.05***	**165.82***

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

3.3. Robustness Tests

3.3.1. Endogeneity Test

To address potential endogeneity concerns, a Difference-in-Differences (DID) model was estimated as follows:

$$TA_{it} = \gamma^0 + \gamma^1 TREATED_{it} + \gamma^2 TIME_{it} + \gamma^3 (TREATED_{it} \times TIME_{it}) + \theta' \Sigma Controls_{it} + \Sigma Ind + \Sigma Year + \varphi_i + \mu_{it} \quad (3)$$

where TREATED equals 1 for firms with above-average digital transformation and 0 otherwise, while TIME equals 1 for observations after 2017 and 0 otherwise.

The results reported in Table 6 indicate that the interaction coefficient remains significantly negative, suggesting that digital transformation continues to reduce tax avoidance even after controlling for potential endogeneity. These findings confirm that the baseline results are not driven by reverse causality or selection bias. Moreover, the use of a two-way fixed-effects specification controls for both industry-specific and time-specific heterogeneity, further strengthening the validity of the empirical findings.

Table 6. Endogeneity Test Results

Variables	TA	Digital Transformation Metrics System				
	TA	TA	TA	TA	TA	TA
TREATED	0.001 (0.43)					
TIME	0.002 (0.10)	-0.002 (-0.17)	-0.004 (-0.28)	-0.001 (-0.64)	-0.001 (-0.85)	-0.003** (-1.96)
TREATED × TIME	-0.006** (-2.07)					
TREATED_AI		0.001 (0.20)				
TREATED_AI × TIME		-0.009** (-2.01)				
TREATED_BC			-0.003 (-0.41)			

Variables	**TA**		**Digital Transformation Metrics System**			
TREATED_BC × TIME			-0.014** (-2.04)			
TREATED_CC				-0.006** (-2.28)		
TREATED_CC × TIME				-0.006** (-2.15)		
TREATED_BD					0.002 (0.74)	
TREATED_BD × TIME					-0.006** (-2.01)	
TREATED_PAT						0.002 (0.91)
TREATED_PAT × TIME						-0.006** (-2.08)
cons	-0.193*** (-23.15)	-0.005** (-2.18)	-0.087*** (-8.56)	-0.027*** (-3.60)	-0.183*** (-19.70)	-0.070*** (-6.72)
Controls, Ind, and Year	Yes	Yes	Yes	Yes	Yes	Yes
N	**9009**	**9009**	**9009**	**9009**	**9009**	**9009**
R^2	**12.10%**	**10.32%**	**10.77%**	**3.38%**	**16.01%**	**6.69%**
Adjusted R^2	**11.97%**	**10.07%**	**10.62%**	**3.21%**	**15.73%**	**6.29%**
F statistics	**98.42***	**36.85***	**40.98***	**26.40***	**53.13***	**13.57***

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

3.3.2. Alternative Measure of Digital Transformation

To further verify the robustness of the results, an alternative proxy for digital transformation (DEDI) was constructed using the frequency of digitalization-related keywords appearing in the Management Discussion and Analysis (MD&A) section of annual reports. Following a machine-learning-based textual analysis approach, the total frequency of digital-related vocabulary was normalized by the length of the MD&A section.

The results reveal that the alternative measure continues to exhibit a significant negative relationship with tax avoidance. This finding indicates that the negative effect of digital transformation on tax avoidance is not sensitive to the measurement approach employed and confirms the robustness and stability of the baseline results.

Table 7. Alternative Measure Test Results

Variables	**TA**
DEDI	-0.001** (-2.26)
cons	-0.085*** (-2.79)

Variables	TA
Controls, Ind, and Year	Yes
N	**9009**
R^2	**5.24%**
F statistics	**10.46**
B-P test	**7684.99***
Hausman test	**158.55***

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

3.3.3. Industry Heterogeneity Analysis

To investigate whether the effect of digital transformation varies across industries, the sample was divided into high-technology and non-high-technology firms according to China's national industry classification standards.

The results indicate that digital transformation significantly reduces tax avoidance in both groups. However, the magnitude of the effect is considerably stronger among high-technology firms. This finding suggests that firms possessing more advanced technological capabilities are better positioned to leverage digital technologies to improve governance quality, strengthen information transparency, and standardize managerial decision-making processes. Consequently, digital transformation contributes more effectively to reducing opportunistic tax behavior in high-technology industries than in traditional sectors.

Table 8. Industry Heterogeneity Results

Variables	High-tech Enterprises (TA)	Non-high-tech Enterprises (TA)
DITR	-0.036*** (-10.20)	-0.012*** (-3.03)
cons	0.006 (0.60)	-0.122*** (-15.94)
Controls and Year	Yes	Yes
N	**2416**	**6593**
R^2	**14.87%**	**9.64%**
F statistics	**28.71***	**50.11***

3.4. Mechanism Analysis

To further explore the internal transmission mechanisms underlying the relationship between digital transformation and tax avoidance, this study follows the mediation analysis framework proposed by Baron and Kenny (1986). Specifically, three mediating variables are examined: downside risk (DSR), managerial emotional tone (ETM), and political cost (POCO). These variables capture distinct channels through which digital transformation may influence corporate tax-planning behavior.

The mediation models are specified as follows:

$$MEDI\_it = \beta_0 + \beta_2 DITR\_(i,t-1) + \theta' \Sigma Controls\_it + \Sigma Ind + \Sigma Year + \varphi\_i + \mu\_it \quad (4)$$

$$TA\_it = \beta_0 + \beta_1 DITR\_(i,t-1) + \beta_3 MEDI\_it + \theta' \Sigma Controls\_it + \Sigma Ind + \Sigma Year + \varphi\_i + \mu\_it \quad (5)$$

where MEDI represents downside risk (DSR), managerial emotional tone (ETM), and political cost (POCO).

3.4.1. Downside Risk (DSR)

Following Miller and Leiblein (1996), downside risk was employed to capture the potential deterioration of firm performance and future growth prospects. The measure is calculated as follows:

$$DSR\_it = \sqrt{[(1/7)\,\Sigma(ROA\_(i,t-1) - iROA\_(i,t-1))^2]} \quad (6)$$

where iROA represents industry-average performance and ROA represents firm-level performance.

The results indicate that digital transformation significantly reduces downside risk, with a marginal contribution of approximately 3.2%. Firms undergoing digital transformation are better able to process information, anticipate market fluctuations, and respond to environmental uncertainty, thereby reducing their exposure to adverse performance outcomes. Furthermore, downside risk is positively associated with tax avoidance, suggesting that firms facing greater uncertainty are more likely to engage in aggressive tax-planning activities.

The Sobel test confirms a significant mediation effect, indicating that digital transformation indirectly reduces tax avoidance through its ability to mitigate downside risk. Therefore, downside risk constitutes an important mechanism through which digital transformation influences corporate tax behavior.

3.4.2. Managerial Emotional Tone (ETM)

Consistent with the high-context communication perspective proposed by Hall (1976), textual disclosures contain substantial qualitative information regarding managerial perceptions, expectations, and future strategic intentions. Compared with standardized financial information, narrative disclosures provide richer contextual insights and often reveal managerial attitudes that are difficult to capture through quantitative indicators alone.

Following the sentiment analysis approach developed by Davis et al. (2015), this study evaluates managerial emotional tone through the linguistic characteristics of corporate disclosures. Prior studies suggest that managerial sentiment conveys important signals regarding future corporate prospects and significantly influences stakeholder perceptions and market reactions (Brown & Tucker, 2011; Ferris et al., 2013).

Managerial emotional tone is calculated as:

ETM = (Positive Words − Negative Words) / Total Words

The findings indicate that digital transformation significantly improves managerial emotional tone, increasing positive sentiment among corporate managers. This result suggests that firms undergoing digital transformation tend to communicate more optimistic expectations regarding future prospects and strategic development.

However, the mediation analysis further reveals that a more positive managerial tone is associated with higher levels of tax avoidance. The Sobel test confirms a significant indirect effect, indicating that managerial optimism may encourage greater risk-taking behavior and more aggressive tax-planning strategies. Consequently, managerial emotional tone serves as a significant but adverse transmission channel linking digital transformation and tax avoidance.

3.4.3. Political Cost (POCO)

The concept of political cost is grounded in the political cost hypothesis and agency theory, which suggest that firms may alter their behavior in response to government intervention, regulatory pressure, and political incentives (Watts & Zimmerman, 1978; Jensen & Meckling, 1976). Political costs include expenditures associated with rent-

seeking activities, regulatory compliance, employment obligations, and other government-related interventions.

In emerging economies such as China, firms often face substantial political pressures due to government involvement in economic activities. Consequently, political costs may influence managerial decisions, including tax-planning strategies. Following the excess-employment approach proposed by Berger et al. (1997), this study uses redundant labor as a proxy for political cost.

Political cost is estimated using the following model:

$$STAFF\_it = \gamma_0 + \theta' \Sigma Controls\_it + \Sigma Ind + \Sigma Year + \varepsilon\_it \quad (7)$$

The residual component of STAFF is used as a proxy for political cost (POCO).

The results indicate that digital transformation significantly reduces political costs. Enhanced information transparency and improved governance structures reduce opportunities for rent-seeking behavior and facilitate more efficient resource allocation. Lower political costs subsequently reduce firms' incentives to engage in tax avoidance.

The Sobel test further confirms a significant indirect effect, indicating that digital transformation contributes to lower tax avoidance by alleviating the burden of politically motivated expenditures and improving organizational efficiency.

Table 9. Mediation Analysis Results

Variables	**Downside Risk (DSR)**		**Emotional Tone of Management (ETM)**		**Political Cost (POCO)**	
DITR	DSR -0.032*** (-5.85)	TA -0.016*** (-3.59)	ETM 0.086*** (5.01)	TA -0.012*** (-2.75)	POCO -0.001*** (-3.63)	TA -0.010** (-2.36)
DSR		0.055*** (5.18)				
ETM				0.008** (2.17)		
POCO						1.124*** (6.16)
cons	0.714*** (20.52)	0.063** (2.21)	-0.527*** (-4.50)	-0.088*** (-2.87)	-0.015*** (-6.97)	-0.096*** (-3.34)
Controls, Ind, and Year	Yes	Yes	Yes	Yes	Yes	Yes
N	**9009**	**9009**	**9009**	**9009**	**9009**	**9009**
Sobel test	**2.33**		**4.22***		**4.43***	
Mechanism	Effective mechanisms: positive transfer		Effective mechanisms: negative transfer		Effective mechanisms: positive transfer	
Mediation value	**-0.00176***		**0.00067***		**-0.00124***	
R^2	**13.30%**	**6.99%**	**14.15%**	**4.84%**	**3.25%**	**7.23%**
F statistics	**38.61***	**18.08***	**32.09***	**9.56***	**6.63***	**18.74***

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

Table 10. Political Cost Estimation Results

Variables	STAFF
cons	0.031*** (14.27)
Controls, Ind, and Year	Yes
N	**9009**
R^2	**24.77%**
F statistics	**67.36***
B-P test	**13688.79***
Hausman test	**78.05***
RSS	**0.0117**
MSS	**0.0015**

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

3.5. Moderating Effect and Heterogeneity Analysis

To examine whether firm growth influences the relationship between digital transformation and tax avoidance, the following moderation model is estimated:

$$TA\_it = \beta_0 + \beta_1 DITR\_(i,t-1) + \beta_2 GRTR\_it + \beta_3 (GRTR\_it \times DITR\_(i,t-1)) + \theta' \Sigma Controls\_it + \Sigma Ind + \Sigma Year + \varepsilon\_it \quad (8)$$

where GRTR denotes the growth rate of total assets and reflects firms' future growth prospects.

The results indicate that growth trend significantly moderates the relationship between digital transformation and tax avoidance. Specifically, the inhibitory effect of digital transformation becomes stronger among firms experiencing higher growth rates. These findings suggest that growing firms derive greater governance and informational benefits from digital transformation initiatives.

Further heterogeneity analyses reveal that the negative relationship between digital transformation and tax avoidance is more pronounced among small and medium-sized enterprises than among large firms. Smaller firms generally face greater informational constraints and governance challenges; therefore, the benefits generated by digital transformation become more substantial.

In addition, the analysis based on ownership structure shows that the impact of digital transformation is stronger among non-state-owned enterprises than among state-owned enterprises. This finding suggests that market-oriented firms are more likely to utilize digital technologies to improve governance quality, strengthen transparency, and reduce opportunistic financial behavior.

Overall, the moderating and heterogeneity analyses provide additional evidence that the effectiveness of digital transformation in reducing tax avoidance depends on firm-specific characteristics and growth conditions.

Table 11. Moderating and Heterogeneity Analysis Results

Variables	Moderating Effect	Large Enterprises	Small and Medium Enterprises	State Holding Enterprises	Non-State Holding Enterprises
DITR	TA -0.012*** (-2.83)	TA -0.016*** (-4.01)	TA -0.017* (-1.86)	TA -0.017*** (-3.46)	TA -0.011* (-1.88)

Variables	Moderating Effect	Large Enterprises	Small and Medium Enterprises	State Holding Enterprises	Non-State Holding Enterprises
GRTR	-0.003** (-2.75)	-0.005*** (-4.81)	-0.005*** (-2.03)	-0.001 (-0.79)	-0.005*** (-3.22)
GRTR × DITR	-0.017** (-2.64)	-0.020*** (-3.61)	-0.031** (-1.98)	-0.006 (-0.76)	-0.030*** (-2.99)
cons	-0.106*** (-3.46)	0.061*** (2.66)	-0.064 (-1.04)	-0.159*** (-5.29)	-0.068 (-1.38)
Controls, Ind, and Year	Yes	Yes	Yes	Yes	Yes
N	**9009**	**6255**	**2754**	**5448**	**3561**
R^2	**4.86%**	**3.53%**	**36.26%**	**4.63%**	**11.19%**
F statistics	**9.41***	**5.94***	**45.12***	**5.42***	**10.44***

Note: *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. T statistics are presented in parentheses. The variables are defined as indicated in Table 1.

4. Discussion

The findings of this study reveal that tax avoidance remains a prevalent practice among Chinese listed companies, even after controlling for the effects of accrued profits and fluctuations in operating income. The existence of substantial variation in tax avoidance levels indicates that firms adopt different tax-planning strategies based on their operational characteristics, governance structures, and strategic objectives. Furthermore, under China's current tax administration system, corporate tax return information is not publicly disclosed, making it difficult for external stakeholders to fully assess firms' tax-paying behavior based solely on financial statements. This limitation contributes to information asymmetry between firms and information users. As digital transformation advances, the increasing integration of financial and tax-related information further complicates the relationship between corporate activities and tax outcomes, creating new challenges for monitoring and evaluating tax avoidance practices.

The results also demonstrate that digital transformation significantly reduces corporate tax avoidance. This finding supports the argument that digital technologies improve information transparency, strengthen internal control systems, and enhance corporate governance effectiveness. As digital technologies become increasingly embedded within business operations, traditional information barriers are gradually eliminated, enabling more efficient information sharing among stakeholders. Enhanced transparency reduces managerial opportunities to exploit informational advantages for personal benefit, thereby mitigating agency conflicts and lowering information asymmetry. Consequently, managers face greater accountability and monitoring, reducing their incentives to engage in aggressive tax-planning activities. These findings are consistent with prior studies highlighting the governance and monitoring benefits of digital transformation (Li et al., 2021; Plekhanov et al., 2023; Verhoef et al., 2021).

The mechanism analysis provides additional insights into how digital transformation influences tax avoidance. First, downside risk serves as an important mediating channel. Digital transformation enhances operational efficiency, organizational resilience, and decision-making quality through the adoption of advanced technologies and data-driven processes. These improvements enable firms to better anticipate market changes, manage uncertainty, and respond effectively to economic shocks. As a result, firms experience lower downside risk and become less dependent on tax avoidance strategies as a means of maintaining profitability during periods of uncertainty. Rather than relying on

aggressive tax planning to generate short-term financial gains, digitally transformed firms can achieve sustainable performance through operational improvements and innovation.

Second, managerial emotional tone plays a significant mediating role. Digital transformation expands access to information, improves analytical capabilities, and enhances managers' ability to evaluate future market opportunities. Consequently, managers tend to communicate more optimistic expectations regarding corporate prospects. While positive managerial sentiment may strengthen stakeholder confidence, the findings indicate that excessive optimism can also encourage more aggressive tax-planning behavior. The increasing complexity of digital business models and transaction structures may provide managers with greater opportunities to exploit tax-planning mechanisms, thereby increasing tax avoidance. This result suggests that digital transformation may generate unintended consequences when managerial optimism is not accompanied by adequate governance and monitoring mechanisms.

Third, political cost constitutes another important transmission mechanism. Digital transformation contributes to the optimization of production processes, resource allocation, and organizational efficiency, thereby facilitating firm growth and expansion. As firms become more productive and competitive, they are better positioned to generate employment opportunities and support local economic development. This reduces the need for firms to maintain redundant labor for political purposes and lowers the political costs associated with government intervention and rent-seeking activities. The reduction in political costs subsequently decreases firms' dependence on political connections and opportunistic strategies, contributing to lower levels of tax avoidance and a more transparent business environment.

The moderating analysis further reveals that the effectiveness of digital transformation in reducing tax avoidance varies across firm characteristics. Specifically, the negative relationship between digital transformation and tax avoidance becomes stronger as firms experience higher growth rates. Growing firms are more likely to benefit from the governance, information-processing, and operational advantages associated with digital technologies. Moreover, the heterogeneity analysis indicates that digital transformation exerts a stronger inhibitory effect on tax avoidance among small and medium-sized enterprises and non-state-owned enterprises. These firms generally face greater resource constraints and higher levels of information asymmetry than large firms and state-owned enterprises. Consequently, improvements in information transparency and governance resulting from digital transformation generate more substantial benefits. By enhancing monitoring mechanisms, facilitating information sharing, and optimizing resource allocation, digital transformation enables these firms to strengthen competitiveness, improve operational efficiency, and pursue sustainable growth while reducing reliance on aggressive tax-planning practices.

5. Conclusions

This study investigates the relationship between digital transformation and corporate tax avoidance among Chinese listed companies during the period 2016–2022. The empirical findings demonstrate that digital transformation significantly reduces tax avoidance practices, indicating that the adoption of digital technologies contributes to greater transparency, improved governance mechanisms, and enhanced tax compliance. Among the dimensions of digital transformation, blockchain technology exhibits the strongest constraining effect on tax avoidance due to its ability to improve traceability, information transparency, and transaction reliability. Furthermore, the findings reveal that downside risk, managerial emotional tone, and political cost serve as important mediating mechanisms through which digital transformation influences tax avoidance behavior. The moderating analysis also shows that the tax-reducing effect of digital transformation becomes stronger under higher growth conditions and is particularly pronounced among small and medium-sized enterprises and non-state-owned firms.

This study contributes to the literature by extending the understanding of how digital transformation affects corporate financial behavior, particularly tax-planning activities. The findings provide evidence that digital technologies not only improve operational efficiency but also strengthen governance structures that discourage opportunistic managerial actions. In addition, the results offer practical implications for policymakers, regulators, and business organizations seeking to improve tax compliance and corporate transparency in the digital era.

Based on the empirical evidence, several policy implications can be highlighted. Governments should continue promoting digital transformation through supportive policies, including fiscal incentives, technology subsidies, and digital infrastructure development, particularly for small and medium-sized enterprises. Regulatory authorities are encouraged to modernize tax administration systems by integrating advanced digital technologies and improving data governance frameworks to enhance monitoring effectiveness and reduce information asymmetry. At the organizational level, firms should accelerate the adoption of digital technologies, strengthen governance mechanisms, and improve managerial awareness of the strategic relationship between digital transformation and tax compliance. Particular attention should be given to blockchain implementation, as its transparency and immutability characteristics can significantly enhance the reliability of financial information and limit aggressive tax-planning opportunities. Collectively, these efforts can support sustainable corporate development while fostering a more transparent and efficient taxation environment.

.

References

Anderson, M. C., Banker, R. D., & Janakiraman, S. N. (2003). Are Selling, General, And Administrative Costs "Sticky"? *Journal Of Accounting Research, 41*(1), 47–63.

Badertscher, B. A., Katz, S. P., & Rego, S. O. (2013). The Separation Of Ownership And Control And Corporate Tax Avoidance. *Journal Of Accounting And Economics, 56*(2–3), 228–250.

Baron, R. M., & Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction In Social Psychological Research: Conceptual, Strategic, And Statistical Considerations. *Journal Of Personality And Social Psychology, 51*(6), 1173–1182.

Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial Entrenchment And Capital Structure Decisions. *The Journal Of Finance, 52*(4), 1411–1438.

Blaufus, K., Bob, J., Hundsdoerfer, J., Kiesewetter, D., & Weimann, J. (2013). Decision Heuristics And Tax Perception: An Analysis Of A Tax-Cut-Cum-Base-Broadening Policy. *Journal Of Economic Psychology, 35*, 1–16.

Brown, S. V., & Tucker, J. W. (2011). Large-Sample Evidence On Firms' Year-Over-Year MD&A Modifications. *Journal Of Accounting Research, 49*(2), 309–346.

Chen, L., & He, R. (2024). Does Digital Tax Enforcement Drive Corporate Digitalization? Evidence From The Golden Tax Project III In China: A Pre-Registered Report. *Pacific-Basin Finance Journal, 83*, Article 102242.

Chen, M., Zhao, K., & Jin, W. (2024). Corporate Digital Transformation And Tax Avoidance: Evidence From China. *Pacific-Basin Finance Journal, 85*, Article 102400.

Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The Effect Of Manager-Specific Optimism On The Tone Of Earnings Conference Calls. *Review Of Accounting Studies, 20*(2), 639–673.

Desai, M. A., & Dharmapala, D. (2006). Corporate Tax Avoidance And High-Powered Incentives. *Journal Of Financial Economics, 79*(1), 145–179.

Desai, M. A., & Dharmapala, D. (2009). Corporate Tax Avoidance And Firm Value. *Review Of Economics And Statistics, 91*(3), 537–546.

Ferris, S. P., Hao, Q., & Liao, M. Y. (2013). The Effect Of Issuer Conservatism On IPO Pricing And Performance. *Review Of Finance, 17*(3), 993–1027.

Gorodnichenko, Y., & Weber, M. (2016). Are Sticky Prices Costly? Evidence From The Stock Market. *American Economic Review, 106*(1), 165–199.

Guo, T., Chen, H., Xiao, Z., Ai, S., & Wang, S. (2023). Does Corporate Digital Transformation Affect The Level Of Corporate Tax Avoidance? Empirical Evidence From Chinese Listed Tourism Companies. *Finance Research Letters, 57*, Article 104271.

Hall, E. T. (1976). *Beyond Culture*. Anchor Press.

Hanlon, M., & Heitzman, S. (2010). A Review Of Tax Research. *Journal Of Accounting And Economics, 50*(2–3), 127–178.

Jensen, M. C., & Meckling, W. H. (1976). Theory Of The Firm: Managerial Behavior, Agency Costs And Ownership Structure. *Journal Of Financial Economics, 3*(4), 305–360.

Kim, J. B., Li, Y., & Zhang, L. (2011). Corporate Tax Avoidance And Stock Price Crash Risk: Firm-Level Analysis. *Journal Of Financial Economics, 100*(3), 639–662.

Lanis, R., & Richardson, G. (2015). Is Corporate Social Responsibility Performance Associated With Tax Avoidance? *Journal Of Business Ethics, 127*(2), 439–457.

Li, H., Wu, Y., Cao, D., & Wang, Y. (2021). Organizational Mindfulness Towards Digital Transformation As A Prerequisite Of Information Processing Capability To Achieve Market Agility. *Journal Of Business Research, 122*, 700–712.

Liu, D. Y., Chen, S. W., & Chou, T. C. (2011). Resource Fit In Digital Transformation: Lessons Learned From The CBC Bank Global E-Banking Project. *Management Decision, 49*(10), 1728–1742.

Miller, K. D., & Leiblein, M. J. (1996). Corporate Risk-Return Relations: Returns Variability Versus Downside Risk. *Academy Of Management Journal, 39*(1), 91–122.

Plekhanov, D., Franke, H., & Netland, T. H. (2023). Digital Transformation: A Review And Research Agenda. *European Management Journal, 41*(6), 821–844.

Ramanna, K., & Roychowdhury, S. (2010). Elections And Discretionary Accruals: Evidence From 2004. *Journal Of Accounting Research, 48*(2), 445–475.

Rego, S. O., & Wilson, R. (2012). Equity Risk Incentives And Corporate Tax Aggressiveness. *Journal Of Accounting Research, 50*(3), 775–810.

Sun, X., & Peng, H. (2024). Overall Tax Avoidance And Overall Tax Burden Stickiness: The Suppressing Effect Of R&D Investment In China. *Technology Analysis & Strategic Management, 36*(11), 3279–3293.

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital Transformation: A Multidisciplinary Reflection And Research Agenda. *Journal Of Business Research, 122*, 889–901.

Wang, Y., & Hajli, N. (2017). Exploring The Path To Big Data Analytics Success In Healthcare. *Journal Of Business Research, 70*, 287–299.

Watts, R. L., & Zimmerman, J. L. (1978). Towards A Positive Theory Of The Determination Of Accounting Standards. *The Accounting Review, 53*(1), 112–134.

Yang, Y., & Yee, R. W. (2022). The Effect Of Process Digitalization Initiative On Firm Performance: A Dynamic Capability Development Perspective. *International Journal Of Production Economics, 254*, Article 108654.

Zhou, D., Kautonen, M., Dai, W., & Zhang, H. (2021). Exploring How Digitalization Influences Incumbents In Financial Services: The Role Of Entrepreneurial Orientation, Firm Assets, And Organizational Legitimacy. *Technological Forecasting And Social Change, 173*, Article 121120.

Zhou, S., Zhou, P., & Ji, H. (2022). Can Digital Transformation Alleviate Corporate Tax Stickiness? The Mediation Effect Of Tax Avoidance. *Technological Forecasting And Social Change, 184*, Article 122028.