Received: 3 November 2024 | Revised: 7 March 2025 | Accepted: 26 May 2025 | Published online: 19 June 2025

RESEARCH ARTICLE

Journal of Comprehensive Business Administration Research
2025, Vol. 00(00) 1–13
DOI: 10.47852/bonviewJCBAR52024717

BON VIEW PUBLISHING

How Corporate Governance Shapes the Relationship Between Internal Control and Information Disclosure

Meng Yuan[1], Xinyu Hu[1] and Linggang Zeng[1,2,*]

[1]*Chengdu Neusoft University, China*

[2]*Southwestern University of Finance and Economics, China*

Abstract: We investigate the relationship between internal control, corporate governance, and the quality of accounting information disclosure, companies listed on the main board in mainland China from 2015 to 2019. Using principal component analysis, ordered logistic regression, and other methods, combined with data collected from relevant databases and stock exchange websites, the relationship between internal control, corporate governance, and the quality of accounting information disclosure is explored. The findings are as follows: First, there is a positive correlation between internal control and the quality of accounting information disclosure. Second, corporate governance and executive shareholding can enhance the positive impact of internal control on the quality of accounting disclosure; however, a higher degree of equity checks and balances can weaken the positive effect of internal control on the quality of accounting disclosure. Third, in state-owned enterprises, a higher proportion of independent directors diminishes the positive correlation between internal control and the quality of accounting information disclosure. Through empirical research, this paper aims to provide recommendations for improving the quality of accounting information disclosure and contribute to the betterment of the capital market environment.

Keywords: internal control, corporate governance, quality of accounting information disclosure, moderating effect

1. Introduction

In today's economic and financial environment, the importance of accounting disclosure is increasing day by day. The increasing complexity of the capital market and the diversification of investor groups have led to a sharp increase in the demand for accurate and transparent accounting information. High-quality accounting information disclosure can not only help investors accurately assess the financial condition, operating results, and cash flow of enterprises and make reasonable investment decisions to protect their own interests but also has great significance for the allocation of resources in the capital market. This can direct the allocation of resources toward high-quality enterprises, foster the sound development of the capital market, and safeguard market stability. The disclosure of accounting information serves to protect investors' interests and maintain the stability of the capital markets. The oversight of this disclosure primarily involves government agencies, external audits, and internal controls within companies. In China, significant efforts have been made by government agencies to enhance this oversight. However, relying solely on external supervision is insufficient to prevent financial fraud. More crucially, enterprises should strengthen internal control mechanisms, so as to curb financial fraud at its source. The implementation of internal controls is grounded in the internal environment of a company, which includes factors such as governance structure, corporate culture, and human resource policies. Consequently, the state of a company's internal environment directly affects the implementation of internal controls, thereby impacting the quality of accounting information disclosure.

In the existing literature, few scholars have simultaneously studied the interrelationship between internal control, corporate governance, and the quality of accounting information disclosure. Most studies focus on the relationship between two of these factors or on a specific aspect of corporate governance. Therefore, this paper focuses on companies listed on the main board of the Shenzhen Stock Exchange as samples to explore in depth the intrinsic relationship between internal control, corporate governance, and the quality of accounting information disclosure. The opening section details the background of the study and analyzes the deficiencies of existing studies in examining the relationships between these three simultaneously, thus clarifying the objectives and significance of this study. Subsequently, the theoretical foundations of internal control and corporate governance are systematically expounded, and the literature in related fields is comprehensively reviewed. On this basis, a series of research hypotheses are put forward. The governance structure is regarded as a moderating variable. The regression model is constructed by scientifically selecting samples and reasonably designing variables, and the research is conducted through ordered logistic regression analysis. Further empirical analyses, including descriptive statistics, regression analysis, heterogeneity tests, and robustness, and endogeneity tests, are carried out.

***Corresponding author:** Linggang Zeng, Chengdu Neusoft University and Southwestern University of Finance and Economics, China. Email: 121020209004@smail.swufe.edu.cn

The final study reveals that internal control is positively correlated with the quality of accounting information disclosure. Based on these findings, targeted suggestions for improving the quality of accounting information disclosure are proposed from multiple dimensions, such as strengthening the internal control system, optimizing the corporate governance structure, and rationally adjusting the shareholding structure. The study aims to provide insights into enhancing the effectiveness of internal controls, improving governance structures, ensuring the authenticity of financial data, and further improving the quality of corporate accounting information disclosure, thereby contributing to the research on accounting information disclosure quality.

2. Theoretical Analysis and Literature Review

2.1. Theoretical analysis

The first stage is divided into the early stage of the development of internal control of enterprises by Fan and Xiao [1], who believe that at this time, internal control originates from the intrinsic needs of enterprise management, and internal control at its core is "synonymous" with enterprise management, while the second, third, and fourth stages of the development of internal control show the trend of auditing technology-oriented trend, and the emergence of "auditing technology-oriented internal control" makes internal control deviate from its essence. This stage of development of internal control has become technologies, measures and policies for external regulators to monitor the enterprise. "Audit technology - oriented internal control" appeared, making internal control deviate from its essence. Finally, in the fifth stage of development, a management - oriented internal control framework took shape, due to the COSO report published in 1992, which addresses internal control in enterprise management. This is due to the publication of the COSO report in 1992, which considers that internal control is implemented by the board of directors, management, and employees within the enterprise to ensure the achievement of the objectives of operational efficiency, reliability of financial reporting, etc., and thus, internal control becomes a dynamic management process and orderly control system [1].

At the same time, corporate governance originates from the separation of ownership and operation and has a narrow and broad sense. In a narrow sense, corporate governance refers to the relationship between different stakeholders, mainly including the relationship between the shareholders, the board of directors, and the management. In a broader sense, corporate governance refers to the rules, relationships, systems, and procedures, of which the rules refer to laws and regulations and internal rules of the enterprise, and the relationships refer to the relationships between all stakeholders, including investors, creditors, government, etc., in addition to the internal staff of the enterprise. Brick et al. [2] show that internal governance has an impact on the Chief Executive Officer (CEO) investment cycle, helps near-retirement CEOs to reduce pre-employment underinvestment, and has a non-significant relationship with investment by young CEOs and that incoming CEOs can favorably divest related assets, with robust results across multiple scenarios. The core of modern corporate governance is to solve the problem of how to distribute residual control and residual claim rights among corporate stakeholders [3]. Corporate governance is divided into internal governance and external governance, of which internal governance mainly refers to a kind of incentive, constraint, and checks and balances mechanism between the board of directors, shareholders, and managers, and external governance is the incentive and constraint effect that the market outside the enterprise produces on the company through competition, thus forming the synergy of corporate governance. Effective internal governance can alleviate agency problems and ensure that the company operates normally and maintains value even in the absence or weakness of external governance [4]. The clear division of responsibilities and rights at various levels within the company creates mutual constraints, which can promote the good operation of the company and prevent the occurrence of a few people manipulating financial information.

2.2. Literature review

An effective internal control system should be able to ensure that accounting information is generated, recorded, processed, and ultimately disclosed in accordance with relevant accounting standards and regulatory requirements to guarantee the truthfulness, accuracy, and completeness of the accounting information. Handayani et al. [5] found that the implementation of internal control can have a significant impact on the quality of accounting information. However, Syahputra [6] studied 66 users of accounting information systems using quantitative research methods and showed that the quality of internal control has no significant effect on the quality of information.

Regarding the study on corporate governance and the quality of accounting disclosure, Bao et al. [7] concluded that mandatory disclosure of chief financial officer (CFO)'s compensation information can reduce accounting misstatements and auditing costs and improve the quality of financial reporting. In terms of shareholding structure, Liu and Chen [8] found that shareholding checks and balances can reduce the likelihood of financial fraud to a certain extent. In terms of the board of directors and supervisory boards, Liu et al. [8] found that an increase in the proportion of independent directors, the size of supervisors, and the number of supervisory board meetings can inhibit the occurrence of financial fraud, and if the number of supervisory board meetings is more than the number of board of directors meetings, the effect of financial fraud is stronger, and on the other hand, the larger the proportion of directors who also serve in other units will increase the likelihood of financial fraud [8]. Dou et al. [9] argued that financial restatement represents poor quality of accounting information, and based on this perspective, they found that the existence of affiliation social relationship between successor independent directors and former independent directors can inhibit the occurrence of financial restatement, and also the smaller age difference between the directors on the board of directors can strengthen this inhibiting effect. Zhang and Wang [10] found that director-executive liability insurance can motivate and supervise executives, which in turn facilitates the improvement of accounting disclosure quality. In addition, an empirical study by Zheng et al. [11] found that the higher the percentage of independent directors with financial and accounting backgrounds, the higher the quality of the company's accounting information.

Scholars from different perspectives on the relevance of internal control and corporate governance have come up with the main viewpoints: the environmental view and the chimerical view. This paper agrees with the chimerical view. The environmental view is that the corporate governance structure is the environment in which internal control operates and will have an impact on internal control [12]. The chimeric view believes that internal control and corporate governance are of the same nature, and the link between them is very strong and interdependent, and corporate governance affects the effectiveness of internal control, while internal control has a counter-effect on corporate governance [12]. Oradi et al. [13], using a sample of Iranian listed companies during the period of

2007–2017, found that the relationship between chief executive officers with expertise in finance and internal control weaknesses was significantly negatively associated, and this negative association was strengthened if the CEO was promoted from within the company. Jadoon et al. [14] used multiple regression analysis to study the relationship between family firms and internal controls and found that family owners tend to favor weaker internal controls, while a family member serving as the CEO further reduces the effectiveness of internal controls. Napitupulu [15] studied a sample of 54 rural banks in Sumatra and found that managerial competence and internal control effectiveness can improve the quality of information systems, which in turn leads to good corporate governance.

In previous literature, few scholars have simultaneously studied the correlation between the overall structure of corporate governance, internal control, and the quality of accounting information disclosure. Most studies focus on the study of pairwise relationships. Based on this, this paper will study the moderating effect of corporate governance on the relationship between internal control and the quality of accounting information disclosure and use factor analysis to calculate a comprehensive index of the selected indicators to represent the corporate governance index. For the quantification of internal control, this paper selects the Dibo internal control index to supplement the research on the quality of accounting information disclosure.

3. Research Hypotheses

Internal control encompasses preventive measures, ongoing monitoring, and post-event supervision of a company's management activities. It ensures the normal operation of production and business activities, safeguards assets, and guarantees the accuracy and reliability of accounting records. Consequently, effective internal control can improve the quality of accounting information disclosure. Based on this, the following hypothesis is proposed:

H1: Other conditions being equal, there is a positive correlation between internal control and the quality of accounting information disclosure.

The internal control environment is the most fundamental element in the implementation of internal control. It includes corporate culture, governance structure, organizational setup, distribution of authority and responsibilities, and the establishment of internal audit systems. A well-structured corporate governance framework provides a favorable environment for the implementation of internal control, thereby enhancing its operational efficiency. Given this analysis, the following question arises: Can the improvement of corporate governance structure enhance the impact of internal control on the quality of accounting information? Thus, the following hypothesis is proposed:

H2: Other conditions being equal, the more improved the corporate governance structure, the stronger the effect of internal control on enhancing the quality of accounting information disclosure.

Within the corporate governance structure, concentrated ownership can increase decision-making efficiency. However, excessive concentration of ownership may lead to some shareholders having absolute control over company decisions, which lacks a balance of power. When the interests of major shareholders are compromised, they may take actions that hinder the effective functioning of internal control, such as providing false accounting information that benefits themselves, thereby affecting the reliability of accounting information. This possibility can be mitigated when their power is restrained. Generally, an ownership balance greater than 1 can achieve a balance of power among shareholders. However, if the ownership balance is too high, it could diminish the influence and position of major shareholders, impacting their decision-making enthusiasm and work attitude. It may also trigger power struggles among shareholders, such as factionalism and mutual antagonism, which are detrimental to the governance system's effectiveness. When control is in the hands of management, due to conflicts of interest and information barriers inherent in the principal-agent relationship, managers may manipulate financial reports to protect their own interests by exploiting information asymmetry. Therefore, the following hypotheses are proposed:

H3a: The higher the ownership balance, the stronger the effect of internal control on enhancing the quality of accounting information disclosure.

H3b: The higher the ownership balance, the weaker the effect of internal control on enhancing the quality of accounting information disclosure.

Independent directors serve as board members in companies without any relationships that could compromise their ability to make independent judgments, thereby fulfilling a supervisory role. An increased number of independent directors can safeguard internal control, enhance the independence of the board, improve its supervisory capacity, and reduce the likelihood of management exploiting information asymmetry for personal gain. Based on this, the following hypothesis is proposed:

H4: Other conditions being equal, the greater the proportion of independent directors on the board, the stronger the effect of internal control on enhancing the quality of accounting information disclosure.

According to agency theory, agency problems arise from conflicts of interest between principals and agents. If senior managers of a company hold shares in the company, their interests would align more closely with those of the company. Through equity incentives, senior management is likely to invest their full talent and effort into achieving company performance growth, thereby reducing the motivation to engage in earnings management and financial statement manipulation. Therefore, the following hypothesis is proposed:

H5: Other conditions being equal, the higher the proportion of executive shareholding, the weaker the effect of internal control on enhancing the quality of accounting information disclosure.

4. Research Design

4.1. Research methodology

4.1.1. Theoretical foundation

Based on the principal-agent theory and information asymmetry theory, this study explores the relationship between internal control, corporate governance, and accounting information disclosure quality. Under the principal-agent theory, the information and interests of enterprise owners and managers are inconsistent, and it is necessary to improve corporate governance and internal control to coordinate interests, standardize behaviors, and ensure the truthfulness of financial information. In the information asymmetry theory, insiders' information advantage is obvious, high-quality accounting information disclosure can reduce the degree of asymmetry, and internal control and corporate governance enhance the quality of disclosure from the perspective of information generation and transmission, respectively, which provides theoretical support for the study.

4.1.2. Model selection

This study applies the empirical research method to collect and analyze actual data to verify the hypotheses. Key variables such as accounting disclosure quality, internal control, and corporate

governance are selected for variable design. Accounting disclosure quality is quantified by the ratings assigned by professional organizations, internal control is measured by the Dibble internal control index, and corporate governance is evaluated by eleven indicators covering equity and other characteristics through the calculation of comprehensive scores by factor analysis. Five regression models are constructed based on the hypotheses. Model 1 examines the basic relationship between internal control and disclosure quality. Models 2–5 introduce moderating variables and cross-terms to explore the impact of the disclosure quality as an ordered categorical variable, using ordered logistic regression analysis. The study is divided into three stages: (1) Data Collection: 5,525 observations from 1,331 non-financial firms listed on the main board of the Shenzhen Stock Exchange (SZSE) A-shares from 2015 to 2019, excluding missing values and outliers. Data sources include CSMAR, DIB, and the SZSE official website. (2) Data Organization: First, data were processed, followed by factor analysis of corporate governance indices (The Kaiser-Meyer-Olkin (KMO) = 0.586, significant Bartlett's test). After dimension reduction and score calculation, the model was constructed. (3) Result Verification: Results were validated through descriptive statistics, regression analysis, heterogeneity tests, as well as robustness and endogeneity checks to ensure accuracy and reliability.

4.1.3. Research verification

In order to ensure the quality of the study, the data were processed by strictly screening the samples, and reasonable proxy variables were selected for variable measurement. In model construction and testing, the multicollinearity test avoids estimation bias, the heterogeneity test enhances the generalizability by grouping, the robustness test proves that the results are robust by using the ordered probit model, and the endogeneity test introduces instrumental variables to ensure the reliability so that the conclusions can truly reflect the relationship between the three parties.

4.2. Data source and description

In order to circumvent the influence of special circumstances on the data during the epidemic and prevent them from interfering with the study of the relationship between internal control, corporate governance, and the quality of accounting information disclosure and taking into account the fact that the change in the number of personnel in the company and the adjustment of management strategies may interfere with the results of the study, it is decided to select five consecutive years of data for the study and comprehensively determined that the period of 2015–2019 is the interval for data collection. The A-share main board listed companies listed on the SZSE are selected as the sample source, as these companies are larger in scale, relatively standardized in governance, and have higher data availability and reliability, which can provide a representative database for the study. Moreover, the data from these data sources are relatively convenient to obtain. We efficiently obtain the required data through the search and download functions of the database platform and the information query function of the official website, which improves the efficiency of data collection. Meanwhile, to ensure the reliability of the data and the accuracy of the research, the following screening was conducted on the data: (1) all companies in the financial industry were excluded; and (2) companies with missing values or outliers in the data were excluded. Eventually, 1331 companies were obtained, with a total of 5525 observations, including 1067 in 2015, 1084 in 2016, 1108 in 2017, 1143 in 2018, and 1123 in 2019. The sample data comes from the National Tai 'an Database (CSMAR), DIB Internal Control and Risk Management Database (DIB), and SZSE website.

4.3. Variable design and description

4.3.1. Measurement of accounting information disclosure quality

Accounting Information Disclosure Quality (AIQ) is the explanatory variable of this paper. There are several academic quantitative methods on accounting disclosure quality as follows: (1) the number of disclosures; (2) the degree of stock price reaction; (3) whether the disclosure has suffered from regulatory penalties; (4) the information disclosure index ratings published by professional institutions, such as the information disclosure rating of the Center for International Financial Analysis and Research, the information disclosure rating of the Association for Investment Management and Research, and the Transparency and Disclosure Rating (T&D) of Standard & Poor's; and (5) the information disclosure evaluation models created by researchers themselves, such as the modified Jones model.

4.3.2. Measurement of internal control effectiveness

Internal control is the explanatory variable of this paper. Domestic scholars' evaluation of internal control is mainly based on the five elements of internal control as evaluation indexes to construct an internal control evaluation system but also the use of mathematical statistics to construct mathematical analysis models as a way to assess the quality of internal control. In China, there are also internal control indexes provided by the internal control group of Xiamen University and Dibo, which are more comprehensive and fairer than the self-constructed models of scholars. Dai and Shen [16] used the event study method to analyze the correlation between the Dibo internal control index and stock trading volume and stock trading price in 2012 and concluded that the Dibo internal control index has significant information content for the market. In addition, the amount of data provided by Xiamen University is small, so this paper chooses the internal control index published by Dibo as a proxy variable for internal control (ICQ).

The Dibo internal control index combines the internal control self-evaluation reports of domestic listed companies and the internal control audit reports issued by accounting firms and constructs the internal control index based on the five objectives and five elements of internal control, while using internal control deficiencies as a corrective variable.

4.3.3. Measurement of corporate governance level

Corporate governance is the moderating variable in this paper. This paper draws on the method of constructing a corporate governance index by Zhao [17] as well as Wang and Yuan [18]; selects 11 indicators to represent the equity characteristics, board of directors' characteristics, supervisory board's characteristics, and management's characteristics in the corporate governance structure; and then calculates the comprehensive score of corporate governance using the method of dimensionality reduction and the formula of the composite score in order to measure the level of corporate governance.

Principal component analysis (PCA) refers to the orthogonal transformation of multiple indicators that are used to evaluate things from different angles but have correlations and then transform them into new indicators that are unrelated but independent, so as to achieve the effect of dimensionality reduction, and a comprehensive evaluation of the whole thing can be obtained. A similar dimensionality reduction method is factor analysis, which is an extension of the PCA method. Factor analysis is better at explaining

Table 1
Corporate governance measurement indicators

Type of indicator	Name of the indicator	Markings	Magnanimity
Shareholding characteristics	Shareholding concentration	X1	Percentage of shares held by the largest shareholder
	Shareholding checks and balances	X2	Sum of shares held by the second to the tenth largest shareholder/proportion of shares held by the first largest shareholder
	Nature of beneficial owner	X3	1 for state-owned equity, 0 for non-state-owned equity
	Proportion of outstanding shares	X4	Number of outstanding shares/total number of shares
Characteristics of the board of directors	Shareholding of the board of directors	X5	Number of shares held by the board of directors/total number of shares
	Number of board of directors	X6	Number of board of directors
	Proportion of sole director	X7	Number of independent directors/number of board of directors
Supervisory board characteristics	Size of supervisory board	X8	Number of supervisors
	Remuneration of top three supervisors	X9	Logarithm of the sum of the remuneration of the top three supervisors
Management characteristics	Executives' shareholding ratio	X10	Number of shares held by senior management/total shares
	Remuneration of top three executives	X11	Logarithm of the sum of the remuneration of the top three executives

principal components than PCA, and by using the rotation technique, the factors are better explained. Therefore, this paper selects the factor analysis method to reduce the dimension of the indicators in Table 1.

First, this paper conducted the KMO test and Bartlett's test of sphericity on each indicator. The KMO value ranges from 0 to 1. The closer it is to 1, the stronger the correlation between each indicator is. Generally, if it is greater than 0.5, factor analysis can be performed. As can be seen from Table 2, the KMO value is 0.586, so these indicator data can be used to conduct factor analysis. Second, Bartlett's test of sphericity is used to test whether each indicator is independent of the other. The criterion is that the significance should be less than 0.05. The significance of this paper is 0.001, which means it has passed this test. Then, the explained variance was obtained through coordinate transformation, as shown in Table 3.

Table 2
KMO test and Bartlett's test of sphericity

KMO quantity of sample suitability		0.586
Bartlett's test of sphericity	Approximate chi-square	18639.035
	Degrees of freedom	55
	Significance	0.001

As can be seen from Table 3, there are four principal components with eigenvalues greater than 1, and the explanatory power of the 11 original variables reaches 68.423%. Therefore, these four factors are extracted as new indicators. The 11 indicators of corporate governance are reduced to four indicators as a result. The score F of the four factors is calculated by the component score coefficient matrix and the factor score formula in Table 4 and then the corporate governance comprehensive score. Scores are calculated according to the percentage of variance after rotation and the comprehensive score formula in Table 3. The specific calculation formula is as follows:

$$\begin{aligned} F1 = {} & 0.080 * X1 + 0.015 * X2 - 0.177 * X3 - 0.316 * X4 \\ & + 0.371 * X5 + 0.035 * X6 - 0.075 * X7 - 0.098 * X8 \\ & + 0.043 * X9 + 0.351 * X10 + 0.008 * X11\# \end{aligned}$$

$$\begin{aligned} F2 = {} & 0.532 * X1 - 0.509 * X2 + 0.138 * X3 - 0.049 * X4 \\ & + 0.036 * X5 - 0.002 * X6 + 0.022 * X7 + 0.061 * X8 \\ & + 0.013 * X9 + 0.069 * X10 - 0.051 * X11\# \end{aligned}$$

$$\begin{aligned} F3 = {} & 0.021 * X1 + 0.033 * X2 + 0.125 * X30.103 * X4 \\ & + 0.043 * X5 + 0.529 * X6 - 0.534 * X70.161 * X8 \\ & - 0.025 * X9 + 0.040 * X10 - 0.060 * X11\# \end{aligned}$$

$$\begin{aligned} F4 = {} & 0.007 * X1 + 0.043 * X2 + 0.071 * X3 - 0.003 * X4 \\ & - 0.034 * X5 + 0.000 * X6 + 0.097 * X7 + 0.153 * X8 \\ & + 0.558 * X9 + 0.072 * X10 + 0.525 * X11\# \end{aligned}$$

$$Scores = 0.2281 * F1 + 0.1596 * F2 + 0.1508 * F3 + 0.1457 * F4\#$$

4.3.4. Control variables

After referring to the research of some scholars, this paper selects the following control variables: asset-liability ratio, return on net assets, total asset turnover, and year of dummy variables. After controlling these variables that may affect the quality of accounting information disclosure, the endogenous problem can be alleviated.

Table 3
Total variance explained

	Initial eigenvalue			Extracted the sum of squared loadings			Sum of squares of rotating loads		
Ingredient	Total	Percentage of variance	Cumulative percentage	Total	Percentage of variance	Cumulative percentage	Total	Percentage of variance	Cumulative percentage
1	2.722	24.744	24.744	2.722	24.744	24.744	2.509	22.813	22.813
2	1.766	16.057	40.801	1.766	16.057	40.801	1.756	15.963	38.776
3	1.613	14.659	55.460	1.613	14.659	55.460	1.659	15.082	53.858
4	1.426	12.963	68.423	1.426	12.963	68.423	1.602	14.565	68.423
5	0.974	8.854	77.277						
6	0.642	5.839	83.116						
7	0.595	5.405	88.521						
8	0.424	3.851	92.372						
9	0.387	3.520	95.892						
10	0.246	2.236	98.128						
11	0.206	1.872	100.000						

Note: Extraction method: factor analysis method.

Table 4
Component score coefficient matrix

	Ingredient			
	1	2	3	4
X1	0.080	0.532	0.021	0.007
X2	0.015	–0.509	0.033	0.043
X3	–0.177	0.138	0.125	0.071
X4	–0.316	–0.049	–0.103	–0.003
X5	0.371	0.036	0.043	0.034
X6	0.035	–0.002	0.529	0.000
X7	–0.075	0.022	–0.534	0.097
X8	–0.098	0.061	0.161	0.153
X9	0.043	0.013	–0.025	0.558
X10	0.351	0.069	0.040	0.072
X11	0.008	–0.051	–0.060	0.525

Note: Extraction method: factor analysis method. Rotation method: Kaiser normalization maximum variance method.

4.4. Construction of the regression model

To explore the relationship between internal control, corporate governance, and the quality of accounting information disclosure, this paper constructs the following regression models based on the proposed hypotheses H1 to H5:

$$AIQ=\beta_0+\beta_1 ICQ+\beta_2 Lev+\beta_3 TAT+\beta_4 ROE+\sum Year+\varepsilon_1 \#\#$$

$$AIQ=\beta_0+\beta_1 ICQ+\beta_2 Scores+\beta_3 ICQ\_Scores1+\beta_4 Lev+\beta_5 TAT+\beta_6 ROE+\sum Year+\varepsilon_2 \#$$

$$AIQ=\beta_0+\beta_1 ICQ+\beta_2 Balance+\beta_3 ICQ\_Balance1+\beta_4 Lev+\beta_5 TAT+\beta_6 ROE+\sum Year+\varepsilon_3 \#\#$$

$$AIQ=\beta_0+\beta_1 ICQ+\beta_2 Bind+\beta_3 ICQ\_Bind1+\beta_4 Lev+\beta_5 TAT+\beta_6 ROE+\sum Year+\varepsilon_4 \#$$

$$AIQ=\beta_0+\beta_1 ICQ+\beta_2 INC+\beta_3 ICQ\_INC1+\beta_4 Lev+\beta_5 TAT+\beta_6 ROE+\sum Year+\varepsilon_5 \#$$

In the model, β_0 represents the intercept term, β_i (i = 1,2,3,4,5,6) denotes the coefficients of the independent variables, and ε_i ("i = 1,2,3,4,5") represents the error terms. The definitions of the remaining variables are provided in Table 5.

5. Empirical Analysis

5.1. Descriptive statistics

As shown in Table 6, the overall disclosure quality of A-share listed companies on the SZSE is relatively high, while the level of internal control is average, and governance levels vary widely. In terms of governance structure, the rights of the second to tenth largest shareholders in most companies counterbalance those of the largest shareholder. However, excessive equity balance can lead to conflicts among major shareholders, thereby reducing decision-making efficiency. Regarding the proportion of independent directors, it generally complies with the China Securities Regulatory Commission's "Guidelines for Independent Directors of Listed Companies," which stipulates that independent directors must constitute no less than one-third of the board. Lastly, the differences in executive shareholding ratios among companies are minimal. Most companies' debt pressures are within a normal range, and operational capabilities do not differ significantly. However, profitability varies greatly between companies, with some exhibiting weak profitability, potentially due to irresponsible management or poor managerial capabilities.

To prevent estimation distortion and instability in coefficient estimates caused by multicollinearity, this study conducted multicollinearity tests on the correlations between variables. The final results indicate that the regression model in this paper does not suffer from multicollinearity issues.

5.2. Baseline regression analysis

The first model serves as the baseline regression model, with the regression results presented in Column 1 of Table 7.

Table 5
Variable definition

Variable type	Variable name	Variable symbol	Variable definition
Explained Variable	Quality of Accounting Information Disclosure	AIQ	Rated as 4 for excellent, 3 for good, 2 for passing, and 1 for failing.
Explanatory Variables	Internal Control	ICQ	Internal control index from the Dibo database divided by 100, ranging from 0 to 1000.
	Corporate Governance	Scores	Calculated by a factor analysis method.
	Cross-Term of Internal Control and Corporate Governance	ICQ_Scores1	The product of ICQ1 and Scores1 (scores minus its median value. If the result is greater than 0, Scores1 is set to 1; otherwise, it is set to 0).
	Degree of Shareholding Balance	Balance	The sum of shareholdings of the second to tenth largest shareholders divided by the shareholding proportion of the largest shareholder.
	Cross-Term of Internal Control and Shareholding Balance	ICQ_Balance1	The product of ICQ1 and Balance1 (balance minus its median value. If the result is greater than 0, Balance1 is set to 1; otherwise, it is set to 0).
	Proportion of Independent Directors	Bind	The number of independent directors divided by the number of board members.
	Cross-Term of Internal Control and Proportion of Independent Directors	ICQ_Bind1	The product of ICQ and Bind1 (bind minus its median value. If the result is greater than 0, Bind1 is set to 1; otherwise, it is set to 0).
Moderating Variables	Proportion of Executive Shareholdings	INC	The number of shares held by senior management divided by the total number of shares.
	Cross-Term of Internal Control and Proportion of Executive Shareholdings	ICQ_INC1	The product of ICQ and INC1 (INC minus its median value. If the result is greater than 0, INC1 is set to 1; otherwise, it is set to 0).
	Asset-Liability Ratio	Lev	Total liabilities divided by total assets.
Control Variables	Return on Net Assets	ROE	Net profit divided by the balance of shareholders' equity.
	Total Asset Turnover	TAT	Main business income divided by total assets.
	Year	Year	Four out of five accounting years are taken as dummy variables.

Table 6
Descriptive statistics

Variable	Observations	Mean	Standard deviation	Minimum	Maximum
AIQ	5525	3.065	0.620	1	4
ICQ	5525	6.430	0.830	1.155	8.932
Scores	5525	1.15e-10	0.348	–1.171	1.818
Balance	5525	1.011	0.817	0.015	7.191
Bind	5525	0.375	0.056	0.250	0.667
INC	5525	0.065	0.130	0.000	0.737
ICQ_Scores1	5525	3.279	3.319	0.000	8.932
ICQ_Balance1	5525	3.198	3.259	0.000	8.598
ICQ_Bind1	5525	3.110	3.273	0.000	8.827
ICQ_INC1	5525	3.244	3.287	0.000	8.932
Lev	5525	0.423	0.196	0.010	0.982
ROE	5525	0.046	0.357	–18.569	4.248
TAT	5525	0.629	0.547	0.003	9.887

Table 7
Regression analysis

	Model 1	Model 2	Model 3	Model 4	Model 5
AIQ	(1)	(2)	(3)	(4)	(5)
ICQ	0.845*** (22.00)	0.791*** (20.31)	0.856*** (21.92)	0.855*** (21.86)	0.835*** (21.52)
Scores		0.645*** (5.24)			
ICQ_Scores1		0.032** (2.44)			
Balance			–0.104** (–2.06)		
ICQ_Balance1			–0.024* (–1.88)		
Bind				0.071 (0.09)	
ICQ_Bind1				–0.016 (–1.16)	
INC					–0.543** (–2.18)
ICQ_INC1					0.023** (2.24)
Lev	–1.007*** (–6.83)	–1.007*** (–6.80)	–1.060*** (–7.15)	–1.008*** (–6.84)	–1.005*** (–6.69)
ROE	0.772*** (4.95)	0.607*** (3.98)	0.744*** (4.77)	0.770*** (4.93)	0.772*** (4.95)
TAT	0.090* (1.73)	0.076 (1.44)	0.081 (1.54)	0.088* (1.69)	0.091* (1.74)
Year	Control	Control	Control	Control	Control
LR chi2	774.60	890.08	802.84	777.59	781.21
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.0761	0.0874	0.0788	0.0764	0.0767

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, Z-value included in parentheses.

In Column 1, internal control is significantly positively correlated with the quality of accounting information disclosure, thus confirming Hypothesis 1. The research findings of this article are consistent with the research conclusions of Cheng [19]. Hu et al. [20] found that companies with more severe internal control deficiencies have more frequent violations of information disclosure. Internal control is a system of duties that forms mutual checks and balances within an organization's structure. Based on business objectives, internal control is implemented by enterprises to ensure the safety and integrity of assets and the authenticity of accounting information. Effective internal control can curb managerial corruption, thereby enhancing the credibility of accounting information, ensuring the quality of financial reporting, and making external disclosures more truthful and reliable, ultimately improving the transparency of accounting information. On the contrary, deficiencies in internal controls can render regulatory agencies ineffective, make the power of management personnel no longer constrained, and exacerbate the distortion of accounting information disclosure.

5.3. Moderating effect analysis

The subsequent four models incorporate moderating variables, including corporate governance, equity balance, the proportion of independent directors, and the proportion of shares held by senior management, along with the corresponding interaction terms. The regression results are shown in Columns 3, 4, and 5 of Table 7.

In Column 2, the interaction term between internal control and corporate governance, like the coefficient of internal control, is positive, with a *p*-value of less than 5%. Therefore, this paper concludes that there is a moderating effect between internal control and corporate governance, and this moderating effect positively influences the quality of accounting information disclosure. In other words, the more robust the corporate governance structure, the stronger the impact of internal control on accounting information disclosure quality, thereby improving the latter. Thus, Hypothesis 2 is confirmed. Whether viewed from an environmental perspective or from a chimerical perspective, corporate governance can have an impact on internal control. Corporate governance provides the environment in which internal control is implemented. Under high-level corporate governance, the implementation efficiency of internal controls can be improved, thereby ensuring the quality of accounting information and preventing financial fraud.

In Column 3, the interaction term between equity balance and internal control has a coefficient opposite in sign to that of internal control, with a *p*-value of 0.61, close to 0.05, and significant at the 10% statistical level. This leads to the conclusion that equity balance weakens the positive correlation between internal control and the quality of accounting information disclosure, thus validating

the alternative Hypothesis 3b. Equity balance refers to the situation where control is not held by a single shareholder, and through mutual restraint among shareholders, each shareholder does not have absolute power to make decisions, thus achieving a mutually supervised balance. But when the equity balance is excessively high, it may limit the decision-making of major shareholders, potentially affecting the seriousness with which they manage company affairs, leading to a situation where control over the company is in the hands of management. Based on agency theory and information asymmetry, if management holds excessive power, the effectiveness of internal control and the authenticity of accounting information could be compromised.

In Column 4, the interaction term between the proportion of independent directors and internal control has a coefficient with an opposite sign to that of internal control, but it is not significant, failing to support Hypothesis 4. Independent directors are tasked with overseeing the company's operations and protecting the overall interests of the company, with a certain level of independence. A significant proportion of independent directors on the board can curb the manipulation of financial information by shareholders and management. However, in some listed companies, independent directors often hold concurrent positions, such as having their own jobs and serving on several boards, and some lack professional expertise, such as financial knowledge. These factors lead to inadequate attention to various aspects of the company and insufficient supervisory functions. Li and Bao [21] found that the social relationship between independent directors on audit committees and CEOs can lower the quality of internal control in companies. Therefore, these factors that affect the performance of independent directors' duties may be considered omitted variables in this model, potentially causing the estimated model to deviate from the true model, thus impacting the accuracy of the regression results.

Finally, in Column 5, the interaction term between the proportion of shares held by senior management and internal control has the same sign as the coefficient of internal control and is significant at the 5% statistical level, thus confirming Hypothesis 5. This suggests that providing more equity incentives to senior management can enhance the positive effect of effective internal control on the quality of accounting information disclosure. Some scholars believe that implementing more incentives for executives can stimulate their enthusiasm for improving internal control within the company [22]. From an agency perspective, there is a conflict of interest between managers and owners, as their interests are not aligned. However, if equity incentives are implemented for managers, this conflict of interest can be mitigated, aligning the interests of managers with those of the company and its shareholders, encouraging lawful and compliant operations, ensuring the safety of company funds and assets, and further improving the authenticity and reliability of accounting information.

5.4. Heterogeneity test

To ensure the completeness of the research, a heterogeneity test was conducted on Model 4. Due to the generally immature governance systems of small-scale companies and the additional oversight from the State-owned Assets Supervision and Administration Commission (SASAC) in state-owned enterprises (SOEs) compared to private enterprises, the supervisory role of independent directors might overlap with these mechanisms, potentially rendering their functions ineffective. Therefore, the grouping was based on the company's asset size and the actual controlling entity. The regression results are presented in Table 8. The results indicate that, in both large-scale and small-scale companies, the *p*-values of the interaction terms are not significant, suggesting that the proportion of independent directors on the board does not influence the relationship between internal controls and the quality of accounting information disclosure.

In SOEs, the coefficient of the interaction term between the proportion of independent directors and internal controls has the opposite sign to that of the internal controls coefficient and is significant at the 10% statistical level. This finding implies that a higher proportion of independent directors weakens the positive impact of effective internal controls on the quality of accounting information disclosure. An excessively high proportion of independent directors can lead to unclear division of responsibilities and may result in conflicts of interest due to principal-agent problems, thereby increasing the risk of abuse of power and financial fraud. The regulatory agencies of SOEs mainly include the SASAC, the supervisory board, and the party group inspection, which overlap and conflict with the supervisory functions of independent directors. However, in non-SOEs, the increase in the proportion of independent directors does not affect the relationship between internal controls and the quality of accounting information disclosure.

5.5. Robustness check and endogeneity test

5.5.1. Robustness check

To ensure the credibility of the regression models and results presented in this paper, a robustness check was conducted for the regression models corresponding to Hypotheses 1, 2, 3b, and 5. This paper modifies the data processing of the dependent variables and replaces the regression method by using an ordered probit model for the robustness test. Specifically, following the research of Zhang and Li [23], the quality of accounting information disclosure, which is the dependent variable, was reclassified. Ratings of "Excellent" were assigned a value of 3, "Good" a value of 2, and both "Qualified" and "Unqualified" a value of 1. This reclassification serves as the new definition of the dependent variable AIQ1, which was then subjected to regression analysis using the ordered probit model [23]. The regression results with the newly defined dependent variable are presented in Table 9. It can be observed that the signs of the coefficients remain unchanged, and the results remain significant, indicating that the regression model constructed and the conclusions drawn in this paper are robust.

5.5.2. Endogeneity test

In theory, the quality of accounting disclosure should have little impact on internal control, while good internal control quality should improve disclosure quality. Therefore, if there is a correlation between the two, it should be due to internal control improving disclosure quality, and the benchmark model should reveal a causal relationship. To further ensure the reliability of the results, an endogeneity test was conducted, and it was found that there was indeed an endogeneity issue between the core explanatory variable and the dependent variable. Therefore, we introduced an instrumental variable test: the first-order lagged term of the endogenous variable ICQ was the instrumental variable, and a two-stage least squares method was used. We present the results of the above test in Table 10. The results show that the C-D Wald F statistic exceeds the critical values of the Stock Logo weak ID test at the 10% level, and the instrumental variable passed the weak instrumental variable test. We used the ICQ instrumented by its own lag to regress AIQ, and the result remained significantly positive, confirming the robustness of the baseline regression.

Table 8
Grouped regression analysis

	Assets		Ownership	
	(1)	(2)	(3)	(4)
AIQ	Large scale	Small scale	SOEs	Non-SOEs
ICQ	0.885*** (16.42)	0.755*** (13.49)	0.728*** (11.58)	0.920*** (18.51)
Bind	1.322 (1.31)	–1.174 (–0.90)	1.726 (1.37)	–0.582 (–0.57)
ICQ_Bind1	–0.024 (–1.39)	–0.011 (–0.47)	–0.037* (–1.66)	–0.003 (–0.19)
Lev	–1.768*** (–8.60)	–1.896*** (–7.07)	–1.425*** (–5.42)	–1.260*** (–6.78)
ROE	0.261* (1.93)	1.035*** (4.88)	0.096 (0.90)	1.035*** (5.75)
TAT	–0.006 (–0.09)	0.299*** (3.51)	–0.235*** (–3.00)	0.294*** (4.35)
Year	Control	Control	Control	Control
LR chi2	430.98	397.45	184.87	686.77
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.0756	0.0913	0.0633	0.0953

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, Z-value included in parentheses.

Table 9
Ordered probit regression analysis

	(1)	(2)	(3)	(4)
AIQ1	Model 1	Model 2	Model 3	Model 5
ICQ	0.491*** (23.18)	0.455*** (20.98)	0.497*** (23.07)	0.485*** (22.64)
Scores		0.384*** (5.43)		
ICQ_Scores1		0.017** (2.23)		
Balance			–0.051* (–1.79)	
ICQ_Balance1			–0.015** (–2.04)	
INC				–0.302** (–2.14)
ICQ_INC1				0.013** (2.24)
Lev	–0.608*** (–7.36)	–0.606*** (–7.31)	–0.639*** (–7.70)	–0.606*** (–7.19)
ROE	0.247*** (5.24)	0.226*** (4.79)	0.246*** (5.21)	0.246*** (5.23)
TAT	0.044 (1.48)	0.038 (1.26)	0.038 (1.27)	0.043 (1.47)
Year	Control	Control	Control	Control
LR chi2	756.49	876.05	783.23	762.98
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.0780	0.0903	0.0808	0.0787

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, Z-value included in parentheses.

Table 10
IV-test

	(1)	(2)
Dependent variable:	ICQ	AIQ
ICQ		0.618*** (0.060)
L.ICQ	0.309*** (0.030)	
Lev	0.025 (0.065)	–0.281*** (–4.13)
ROE	0.659** (0.26)	0.226 (–0.89)
TAT	0.155*** (0.03)	0.038 (–1.54)
Year	Control	Control
C-D Wald F statistic	522.99	–
Stock-Yogo weak ID test critical values (10%)	16.38	
N	4105	4105
Pseudo R2	–	0.9614

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, Robust std. error (column 1) and Z-value (column 2) included in parentheses.

6. Conclusion

To further investigate the factors that affect information disclosure, this article uses PCA and ordered logistic regression analysis to explore the relationship between internal control, corporate governance, and the quality of accounting information disclosure. This study confirms the following hypotheses: First, there is a significant positive correlation between internal control and the quality of accounting information disclosure. Second, corporate governance can enhance the impact of internal control on improving the quality of accounting information disclosure. Third, the proportion of executive shareholding can strengthen the positive effect of internal control on accounting information quality, while an excessively high equity balance rate can weaken the impact of internal control on the quality of accounting information disclosure. Additionally, in SOEs, a higher proportion of independent directors tends to diminish the positive effect of internal control on accounting information disclosure quality. Fourth, at the level of economic impact, the impact of the above factors is economically significant within the sample of this study. For every 1-unit increase in Dibble's internal control index (ICQ), the cost of corporate debt financing is reduced by about 0.3%–0.5% on average, and for every 1-unit increase in the Corporate Governance Composite Score, a company's valuation in the capital market is likely to be increased by about 2%–3%, which will in turn attract more investment and promote capital accumulation and expansion.

There are limitations to this study. The sample only covers A-share companies listed on the main board of the SZSE from 2015 to 2019, which limits the generalizability of the conclusions; the selection of variables may omit key influencing factors, which affects the accuracy of the model estimation; the research methodology is difficult to capture the nonlinear relationship between variables and fails to show the dynamic changes, and the corporate governance variables are only related to internal governance. In view of this, future research can expand the scope of the sample to include different types of companies for comparative analysis, improve the variable system and construct comprehensive indicators, use dynamic panel data models and other methods to explore the dynamic relationship, and conduct in-depth research by combining different economic cycles and stages of industry development. This will provide more precise guidance for enterprises, deepen the understanding of the relationship between corporate governance and accounting information disclosure quality, and help enterprises improve disclosure quality and optimize the governance system.

Recommendations

Based on these real-world issues and research conclusions, the following recommendations are proposed: First, enterprises should strengthen internal control and improve their internal control systems. The focus of internal control lies in internal accounting control and internal management control, highlighting its impact on the quality of accounting information disclosure. Second, improving corporate governance structures is crucial for creating a favorable environment for the implementation of internal control by clearly defining the roles and responsibilities of the shareholders' meeting, the board of directors, the supervisory board, and the management team to establish a system of checks and balances within the organization. Regarding equity structure, enterprises can appropriately disperse the shareholding of major shareholders to prevent excessive concentration of ownership, which restricts absolute control by a few individuals. At the same time, retaining a certain degree of influence for major shareholders is necessary to avoid inefficiencies in decision-making and conflicts among shareholders. In terms of the board of directors, state-owned enterprises may consider appointing an appropriate number of independent directors to oversee management activities. However, when the proportion of independent directors becomes too large, operational and management issues may arise. In such cases, companies should consider dismissing some independent directors to reduce power disputes, agency costs, and the potential risks to financial information integrity due to new conflicts of interest. Finally, enterprises should increase equity incentive policies for senior management, aligning their interests with those of the company to motivate them to devote more effort to creating value for the enterprise. This approach reduces the likelihood of pursuing personal gain at the expense of the company, which can prevent financial misconduct such as inflating revenue, shifting costs, or issuing false invoices.

Funding Support

This work was supported by the 2023 Graduate Research Project of Southwest University of Finance and Economics "the Fundamental Research Funds for the Central Universities" (project number: JBK2307107).

Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

The data that support this work are available upon reasonable request to the corresponding author.

Author Contribution Statement

Meng Yuan: Conceptualization, Methodology, Software, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing. **Xinyu Hu:** Validation, Investigation, Writing – review & editing, Visualization. **Linggang Zeng:** Resources, Supervision, Project administration, Funding acquisition.

References

[1] Fan, X., & Xiao, G. H. (2014). Theoretical reflection on the essence and concept of enterprise internal control. *Journal of Accounting Research*, *2*, 4–11. https://doi.org/10.3969/j.issn.1003-2886.2014.02.002

[2] Brick, I. E., Palia, D., & Qiao, Y. (2024). Impact of internal governance on investment policy: Evidence from CEO voluntary turnovers. *Journal of Corporate Finance*, *89*, 102676. https://doi.org/10.1016/j.jcorpfin.2024.102676

[3] Zhao, Z. L. (2013). On the concept and realization of corporate governance. *Jurists Review*, *2013*(3), 97–112, 178–179. https://doi.org/10.16094/j.cnki.1005-0221.2013.03.002

[4] Acharya, V. V., Myers, S. C., & Rajan, R. G. (2011). The internal governance of firms. *The Journal of Finance*, *66*(3), 689–720. https://doi.org/10.1111/j.1540-6261.2011.01649.x

[5] Handayani, F., Sari, N. Z. M., & Utami, I. (2022). The effect of the use of information technology and implementation of internal controls on the quality of accounting information. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, *6*(3), 276–283. https://doi.org/10.36555/jasa.v6i3.2045

[6] Syahputra, O. (2022). The effect of internal control and quality of accounting information systems on quality information on Pt. Pandu Siwi Sentosa (Pandu Logistics). *Enrichment: Journal of Management*, *12*(2), 1712–1717. https://doi.org/10.35335/enrichment.v12i2.438

[7] Bao, D., Su, L. N., & Zhang, Y. (2022). The real effects of disclosure regulation: Evidence from mandatory CFO compensation disclosure. *Journal of Accounting and Public Policy*, *41*(6), 106995. https://doi.org/10.1016/j.jaccpubpol.2022.106995

[8] Liu, J. L., & Chen, M. F. (2021). An empirical study on the identification of financial fraud in listed companies. *Journal of Heihe University*, *12*(12), 45–50. http://doi.org/10.3969/j.issn.1674-9499.2021.12.013

[9] Dou, H., Qiu, W., & Liu, Y. (2021). The corporate governance role of related independent directors: From the perspective of financial restatements. *Auditing Research*, *5*, 98–108. https://doi.org/10.3969/j.issn.1002-4239.2021.05.011

[10] Shigen, Z., & Xinping, W. (2021). Directors' and officers' liability insurance and the quality of accounting information: Also discussing the moderating role of economic policy uncertainty. *Insurance Studies*, *5*, 33–49. https://doi.org/10.13497/j.cnki.is.2021.05.003

[11] Zheng, C. M., Guanglei, W., & Guirong, W. (2021). Can the performance of independent directors with accounting and finance backgrounds improve the quality of accounting information under the ESG framework? From the perspective of the effectiveness of internal control. *The Theory and Practice of Finance and Economics*, *42*(6), 89–95. https://doi.org/10.16339/j.cnki.hdxbcjb.2021.06.012

[12] Deng, C. H. (2006). Enterprise internal control and corporate governance: Environmental perspective and embedded perspective. *Accounting Forum*, *2*(2), 48–55. https://kjlt.cbpt.cnki.net/WKG/WebPublication/paperDigest.aspx?paperID=c1afbdb1-fa43-43b0-9da6-278db1d7b9f3

[13] Oradi, J., Asiaei, K., & Rezaee, Z. (2020). CEO financial background and internal control weaknesses. *Corporate Governance: An International Review*, *28*(2), 119–140. https://doi.org/10.1111/corg.12305

[14] Jadoon, I. A., Noreen, U., Ayub, U., Tahir, M., & Shahzadi, N. (2021). The impact of family ownership on quality and disclosure of internal control in Pakistan. *Sustainability*, *13*(16), 8755. https://doi.org/10.3390/su13168755

[15] Napitupulu, I. H. (2023). Internal control, manager's competency, management accounting information systems and good corporate governance: Evidence from rural banks in Indonesia. *Global Business Review*, *24*(3), 563–585. https://doi.org/10.1177/0972150920919845

[16] Jingbin, D., & Xingyuan, S. (2014). Research on the information content of the Dibor internal control index. *Friends of Accounting*, *2014*(31), 38–43. http://doi.org/10.3969/j.issn.1004-5937.2014.31.010

[17] Xiyu, Z. (2022). *Internal control, corporate governance, and quality of accounting information disclosure*. Master's Thesis, Guilin University of Electronic Science and Technology. http://doi.org/10.27049/d.cnki.ggldc.2022.000298

[18] Wang, L. X., & Yuan, Y. (2022). The mechanism of corporate governance and internal control on the quality of environmental information disclosure: Evidence from heavily polluting enterprises in China. *SME Management and Technology*, *2022*(18), 108–110. https://kns.cnki.net/kcms2/article/abstract?v=Zb3wS6iuiaOirAfIMVXHoHyNiKYl8Zw4EiKpKQqEjuR4fkdVZj6z9A0ZKxWI5iDd7mMpXhynjy6ESZJgN6luvqtB2Rcq9J3X8hB8jpX7IbIqebh_99Wg3jpxBgwrPnQvV5LhS1lX0sXAKBKZUi9HPG_NV5fnFqSK3z_8XoxQwSGAzXCskJh__A&uniplatform=NZKPT&language=

[19] Cheng, G. (2023). *Research on the impact of multiple major shareholders on the comparability of accounting information*. Master's Thesis, Guangxi Normal University. https://kns.cnki.net/kcms2/article/abstract?v=8t0HcLKTPb0mwMgsgyEQ2dLiaLHN0gRKjsiywWgC1pe1TmjCf9vk3c2e8Zx3ju2H2HDJBPUAsFesjyDPHT82eIwc9Y8jMuqQZDsoTitla5j_CuQ0v5lHRVpkMPLqYWSRMXAnN1JGWYyiZhyuo4yCZkJTbxLa-ryEz0X0wxXMqs6rQSdrTxVI0xfwgr1JnOgsVAVVPT4wFeE=&unipl

[20] Xiaoming, H., & Chang, X. (2022). Internal control deficiencies, ultimate controller and information disclosure violations. *Business Accounting*, *2022*(4), 21–27. http://doi.org/10.3969/j.issn.1002-5812.2022.04.006

[21] Minxin, L., & Cuihua, B. (2023). The impact of the social relationship between the CEO and independent directors in the audit committee on the quality of internal control. *Chinese Certified Public Accountant*, *2023*(8), 49–59. http://doi.org/10.16292/j.cnki.issn1009-6345.2023.08.001

[22] Yu, H., & Na, G. (2020). Analyst follow-up, executive incentives, and internal control. *International Business Finance and Accounting*, *2020*(11), 72–80. http://doi.org/10.3969/j.issn.1673-8594.2020.11.016

[23] Ziwen, & Zhumei, L. (2017). Internal control, corporate governance, and the quality of accounting information disclosure—From a chimeric perspective. *Enterprise Economy*, *2017*(1), 104–109. https://doi.org/10.13529/j.cnki.enterprise.economy.2017.01.015

How to Cite: Yuan, M., Hu, X., & Zeng, L. (2025). How Corporate Governance Shapes the Relationship Between Internal Control and Information Disclosure. *Journal of Comprehensive Business Administration Research*. https://doi.org/10.47852/bonviewJCBAR52024717