



**THE IMPACT OF TOP MANAGEMENT TEAM ON THE
DISCLOSURE OF INTERNAL CONTROL DEFICIENCIES**



FU ZE
6617195719

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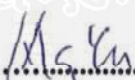
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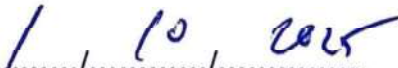
FU ZE

This Independent Study Has Been Approved as a Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration

Advisor.....
(Dr. Ma Yu)

Date:.....

.....
(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business

Date..........

Title: The Impact of Top Management Team on the Disclosure of Internal Control Deficiencies

Researcher: FU ZE

Degree: Master of Business Administration

Major: Accounting and Financial Management

Advisor:

Ma Yu

(Dr. Ma Yu)

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ABSTRACT

Internal control deficiencies affect the effectiveness of internal controls. The role of the company's top management team is crucial in promptly and accurately identifying risks, proposing and establishing effective and feasible internal control systems to address those risks, and ultimately ensuring the company's sustainable development. This study explored the impact of top management team on the disclosure of internal control deficiencies in companies. Using a quantitative method, it systematically examined relevant research findings and analyzed how the power of top management team, cognitive biases, and pay equity influenced the disclosure of internal control deficiencies.

This study surveyed 35 member companies of the Xiamen Listed Companies Association, and used an online questionnaire survey method, inviting a total of 325 executives from listed companies to participate. The questionnaire was distributed through WeChat platform to targeted respondents. 307 valid responses were ultimately obtained, with a high effective response rate of 94.5%. Power of the top management team, and cognitive biases showed a significant negative impact on internal control deficiency disclosures, while pay equity showed a significant positive impact.

To enhance corporate governance effectiveness, organizations should implement a comprehensive reform package that strengthens the disclosure standards for internal control deficiencies, establish a long-term executive learning mechanism to mitigate cognitive biases, and optimize top management team compensation systems to align managerial interests with robust internal control practices.

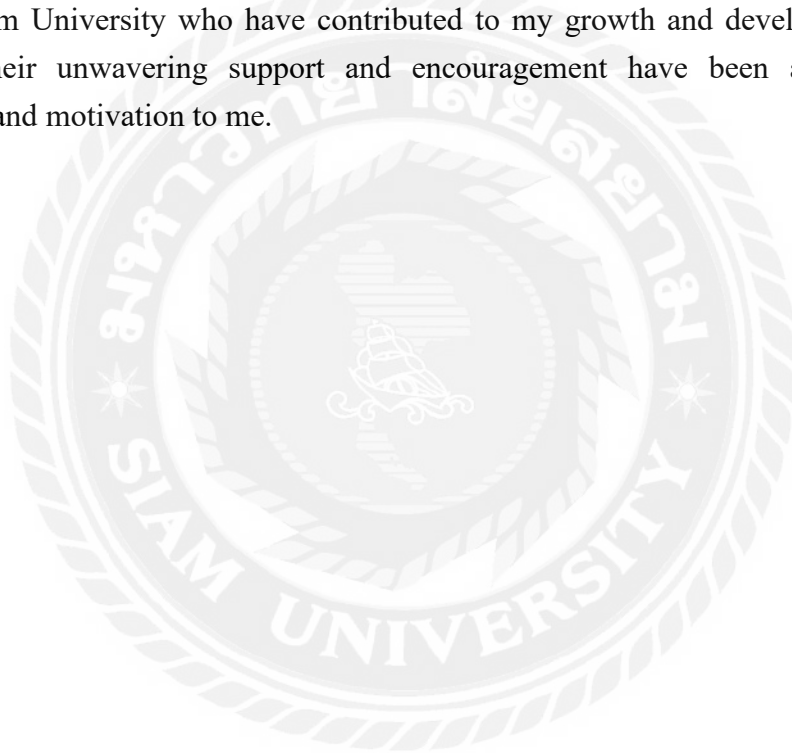
Keywords: power of top management team, disclosure of internal control deficiencies, cognitive biases, pay equity

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DECLARATION

I, Fu Ze, hereby declare that this Independent Study entitled “*The Impact of Top Management Team on the Disclosure of Internal Control Deficiencies*” is an original work and has never been submitted to any academic institution for a degree.

(Fu Ze)

Mar 30, 2025



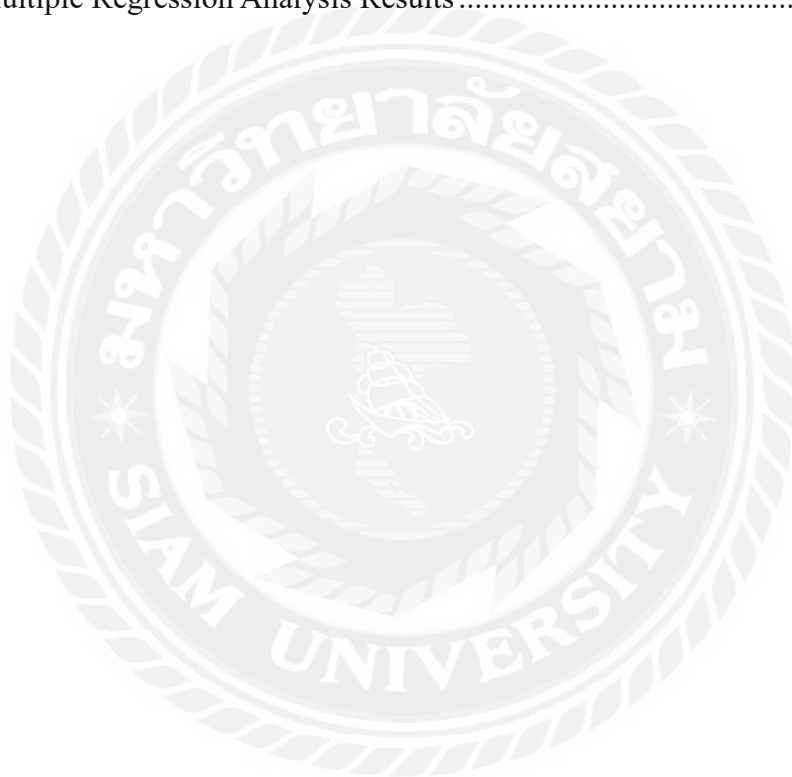
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Chapter 1 Introduction

1.1 Background of the Study

In the early 21st century, a series of large corporations—such as Xerox, Enron, and WorldCom—were involved in major financial scandals, causing significant disruptions in overseas capital markets and eroding investor confidence (He & Liu, 2019). Similarly, financial fraud cases involving listed companies in China, such as Yin Guangxia, Kangmei, and Luckin Coffee, have increased operational risks and destabilized capital markets. A series of financial fraud cases have emerged frequently both domestically and internationally, many of which involve internal control failures and non-compliant operations. A significant portion of these cases stem from senior corporate executives exploiting their authority for personal gain.

In general, one common characteristic of such violations is the frequent involvement of high-ranking corporate officials. This glaring issue highlights deficiencies in companies' internal control management systems and governance structures. It demonstrates the failure of internal control mechanisms, originally designed to enhance risk management, strengthen oversight, and safeguard investor interests, thereby drawing widespread attention to the need for ensuring effective internal control objectives and protecting investor rights. In response, the U.S. enacted the Sarbanes-Oxley Act in 2002, which imposed strict requirements on corporate internal management (Xiao et al., 2014). Following suit, China's auditing and regulatory bodies issued a series of laws and regulations aimed at strengthening internal control systems. And many listed companies in China have established internal control systems.

As the responsible party for a company's information disclosure, executives are accountable for the truthfulness, accuracy, and completeness of the disclosed information. In 2021, China issued the "Regulations on the Management of Information Disclosure by Listed Companies" (No. 182), which states that a company's directors, supervisors, and senior executives must fulfill their duties to ensure that disclosed information is truthful, accurate, complete, and disclosed in a timely and fair manner (Fan & Liu, 2021). At the same time, executives are responsible for the daily operation of the company's internal controls. The extent of their authority determines the degree to which their personal influence affects the company's decision-making (Yang & Liang, 2016). Therefore, executives inevitably impact the internal control system.

Internal control initially emerged to meet the internal needs of companies, with management organizing and overseeing its operation to reduce issues such as abuse of authority, fraud, embezzlement, and accounting errors (Ge & McVay, 2005). This was aimed at ensuring rational resource allocation and maintaining orderly and efficient operations in production and management. With the development of internal control, its ultimate purpose has gradually shifted toward utilizing effective internal controls to achieve comprehensive and efficient enterprise risk management.

1.2 Questions of the Study

Corporate governance structure is one of the key factors influencing the implementation and execution of internal control systems (Lun, 2020). As the core decision-makers determining the results of internal control self-assessment reports, the top management team holds absolute authority over the disclosure of internal control deficiencies. The disclosure of such deficiencies in internal control evaluation reports directly impacts stakeholders' understanding of the company's internal control framework, operational effectiveness, system maturity, and overall financial health (Li & Zhou, 2017). Therefore, the influence of senior management on the disclosure of internal control deficiencies requires comprehensive consideration.

Research has shown that the higher the management team's capability, the higher the quality of internal controls (Li et al., 2011). In this context, the role of the company's top management team is crucial in promptly and accurately identifying risks, proposing and establishing effective and feasible internal control systems to address those risks, and ultimately ensuring the company's sustainable development (Liu & Zheng, 2012). However, The frequent occurrence of corporate financial fraud cases and the exposure of some senior executives' negligence have not only caused losses to the market economy but also sounded an alarm for the development of internal control systems in China. This study raises the following four research problems:

- 1) Does the power of top management team affect the disclosure of internal control deficiencies?
- 2) Do the cognitive biases of top management team affect the disclosure of internal control deficiencies?

3) Does the pay equity of top management team affect the disclosure of internal control deficiencies?

1.3 Objectives of the Study

Deficiencies disclosed in internal control self-assessment reports reflect weaknesses and shortcomings in the design and implementation of a company's internal control systems (Sun et al., 2019). These deficiencies serve as one of the most critical references for stakeholders when making decisions. However, if the authenticity and accuracy of disclosed deficiencies cannot be ensured, due to information asymmetry between internal management and external investors, as well as inadequate regulatory oversight, the reliability and completeness of internal control reporting will inevitably be called into question.

Both China's "Basic Standards for Enterprise Internal Control" and the COSO ERM framework emphasize that top management bears primary responsibility and plays a pivotal role in internal control deficiency disclosures (Zheng et al., 2021). The level of executive commitment to deficiency disclosure directly determines the quality and transparency of information disclosure. A management team with professional competence and integrity awareness typically establishes robust disclosure mechanisms, ensuring both the accuracy of deficiency identification and the timeliness of disclosure. Such competent leadership not only enhances corporate credibility in capital markets but also enables the organization to maintain sustainable development amidst complex and volatile business environments. Therefore, the research objectives of this study are as follows:

1) To examine the effect of the power of top management team on the disclosure of internal control deficiencies.

2) To examine the effect of the cognitive biases of top management team on the disclosure of internal control deficiencies.

3) To examine the effect of the pay equity of top management team on the disclosure of internal control deficiencies.

1.4 Scope of the Study

This study reviewed the current situation of internal control information disclosure and examines relevant literature on the impact of top management teams on the disclosure of internal control deficiencies. By analyzing the factors that influence the disclosure of internal control deficiencies, it is found that top management teams play a crucial role in the process. Specifically, power, cognitive biases, and pay equity have a significant impact on the disclosure of internal control deficiencies. These factors work together to determine the extent and accuracy of the disclosure of internal control deficiencies in companies.

This study employed a quantitative questionnaire survey method to examine the impact of top management team characteristics, specifically power, cognitive biases, and pay equity, on the disclosure of internal control deficiencies in enterprises. This study surveyed 325 member companies of the Xiamen Listed Companies Association, covering executives (including CEOs, CFOs, and board members) from various sectors including manufacturing, finance, and technology.

Data were collected through an online survey platform (Questionnaire Star) targeting member companies of the Xiamen Listed Companies Association. The study aimed to provide empirical evidence for optimizing corporate internal control disclosure mechanisms and to offer policy recommendations to regulatory authorities for enhancing information disclosure requirements.

1.5 Significance of the Study

1.5.1 Theoretical Significance

This study explores the impact of top management team on the disclosure of internal control deficiencies from the perspective of internal control, aiming to enrich the relevant theories on top management teams and internal control. Although extensive research on top management teams has been conducted in academic circles, a review of the existing literature reveals that the impact of top management team on the disclosure of internal control deficiencies remains under explored, particularly in the context of China's national conditions and the specific circumstances of companies. Therefore, a deeper investigation into this relationship holds significant theoretical importance for improving the effectiveness of internal controls and optimizing corporate governance structures.

1.5.2 Practical Significance

First, this study provides recommendations for companies to establish outstanding top management teams. As a core organizational resource, the top management team has critical responsibility for corporate development. By examining how top management teams influence internal control deficiency disclosures, the study enables companies to capitalize on team strengths while mitigating weaknesses. This facilitated the formation of scientifically structured management teams that enhances organizational governance. In competitive environments, the research demonstrates that high-quality internal controls serves as essential prerequisites for sustainable competitive advantage.

Second, the study provides novel insights for improving corporate performance through internal control enhancement. It empirically validates that top management teams could elevate organizational outcomes by strengthening internal control systems, thereby reinforcing the strategic importance of internal controls within corporate governance frameworks.

1.6 Definition of Key Terms

1) Top management team refers to a group of top executives who bear the critical responsibilities of steering corporate long-term development, upholding organizational value missions, and maintaining direct accountability for enterprise performance.

2) Disclosure of internal control deficiencies refers to a company's public disclosure of weaknesses or deficiencies in its internal control system through its financial reports or regulatory filings.

3) The power of top management team refers to the ability of executives to implement their strategic objectives and exert influence beyond their formally delegated authority, driven by their expertise, positional advantages, and individual capabilities.

4) Cognitive bias refers to overconfidence during the information-processing stage.

5) Pay equity is defined as employees' perception of fairness in the compensation system and payment process, which is formed through such comparisons.

Chapter 2 Literature Review

2.1 Theoretical Foundation

2.1.1 Agency Theory

The modern agency theory proposed in 1932, advocating for the separation of ownership and control in a company, where ownership is transferred to management (Mei & Zhao, 2019). An agency relationship arises between two parties, wherein the agent acts on behalf of the principal and is entrusted with making certain decisions while safeguarding the principal's interests (Li et al., 2022). The separation of these two powers leads to conflicts of interest among company stakeholders. Shareholders, as principals, seek to minimize agency costs and encourage management, as agents, to work towards achieving the principals' goals and interests (Zheng et al., 2021).

Agency Theory posits that various stakeholders (including investors, creditors, senior management, employees, etc.) all seek to maximize their interests. Since each stakeholder has different objectives, conflicts of interest may arise in the pursuit of these goals. Under the agent framework, the senior management team not only bears risks and costs but also shares profit outcomes with shareholders. When the interests of shareholders and management diverge, the team may make decisions that prioritize their own benefits at the expense of shareholders. If shareholder interests are not adequately protected, they may withdraw capital support, ultimately leading the firm toward bankruptcy (Yu & Yang, 2019).

During this process, two classic agency problems, adverse selection and moral hazard, emerge due to the misalignment of interests between the principal and the agent, information asymmetry, and the presence of agency costs. Agency problems primarily arise from information asymmetry: pre-contractual asymmetry leads to adverse selection, while post-contractual asymmetry leads to moral hazard. Due to information asymmetry, the principal is at a disadvantage, making it difficult to fully supervise management (Zhao & Zhang, 2013). As a result, management may exploit this imbalance to appropriate the principal's interests and misuse corporate resources for personal gain, such as through high salaries, perquisites, and insider trading.

As a governance mechanism, internal control systems monitor and constrain managerial activities, such as production and sales decisions, investment and financing plans, and R&D expenditures, thereby reducing erroneous decisions and opportunistic behavior (Zhao & Zhang, 2013). However, when internal controls are

defective, their supervisory and disciplinary effects weaken, increasing the likelihood of earnings manipulation by management. Moreover, the severity of these defects correlates with diminished control effectiveness, further elevating the risk of aggressive earnings management practices.

Internal control, as an effective corporate governance mechanism, serves as a powerful oversight tool for principals and can effectively mitigate agency problems. High-quality and effective internal controls during the tenure of management can help build trust with shareholders. Strengthening internal controls is a shared need for both the principal and the diligent agent (Tian & Yu, 2012). For management with opportunistic behavior, there is a strong incentive to exploit and conceal internal control deficiencies for personal gain, leading to the phenomenon of insider control. Therefore, when principals detect and identify internal control deficiencies, they will actively urge management to address and repair these issues.

2.1.2 Information Asymmetry Theory

In the 1970s, American economist Akerlof proposed a seminal observation in his study of market economies. Akerlof argued that participants in capital markets differ significantly in methods of acquiring information and their degree of informational advantage (Li & Wang, 2020). Market participants with superior access to timely and comprehensive information gain a competitive edge, whereas those with limited or outdated information face inherent disadvantages. This information asymmetry can trigger moral hazard: once a principal-agent contractual relationship is established, the principal's inability to effectively monitor and constrain the agent's work efficiency and daily conduct may enable the agent to manipulate profits through excessive earnings management, ultimately harming the principal's interests.

Information asymmetry often leads to adverse selection and moral hazard problems, which are particularly pronounced in capital markets. As listed companies primarily aim to create wealth for shareholders, they may engage in self-serving behaviors (Li et al., 2017). To sustain value creation, some firms resort to fraudulent practices, including misleading investors and other stakeholders. When facing financial difficulties, these companies tend to manipulate their financial statements to present a distorted picture of their performance, potentially causing significant economic losses to stakeholders (Lu, 2018). Robust internal control systems play a critical role in addressing these issues by ensuring the reliability of internal control evaluation reports and audit reports provided to external stakeholders, thereby enhancing transparency and mitigating the adverse effects of information asymmetry

through enabling more informed decision-making by stakeholders. These dual mechanisms help alleviate both adverse selection and moral hazard problems, which can negatively impact corporate performance to varying degrees. The resulting performance deterioration may manifest through multiple channels, ultimately undermining the firm's overall competitiveness.

Deficiencies in internal controls exacerbate the information gap between owners and managers, enabling managerial opportunism in manipulating business operations and financial reporting to maximize personal gains. The severity of internal control weaknesses directly correlates with the degree of information asymmetry, which in turn expands both the likelihood and scope of earnings manipulation by management, ultimately leading to heightened levels of earnings management (Chen et al., 2016).

2.2 Disclosure of Internal Control Deficiencies

In 2007, the Public Company Accounting Oversight Board (PCAOB) in the United States issued Auditing Standards No. 5, which focuses on internal control deficiencies in financial reporting. These deficiencies are categorized into two types based on their severity: significant deficiencies and material weaknesses. Meanwhile, some scholars have also conducted research on the classification of internal control deficiencies, leading to a wealth of findings. Yu and Yang (2019), based on the types of business activities in corporate operations, classified material internal control deficiencies into nine categories, including accounting accounts, revenue recognition, and account reconciliation. Lun (2020), in his study on the factors influencing internal control deficiencies, divided them into company-level deficiencies and accounting-level deficiencies. Liu and Zheng (2012), in their research on the impact of internal control deficiencies and external audit characteristics, classified internal control deficiencies into general deficiencies and material deficiencies. Gu and Xie (2021), after examining the current situation and challenges of internal control deficiency identification in listed companies in China, proposed the need to clearly define and distinguish between financial reporting internal control deficiencies and company-level internal control deficiencies, and to use different standards to differentiate the severity of these two types of deficiencies.

With increasingly stringent regulatory oversight and enhanced compliance requirements, corporate internal control self-assessment reports are transitioning toward standardized disclosure practices. Mandatory disclosure policies for listed companies now facilitate more reliable authentication of information authenticity

(Zhang et al., 2011). Disclosure of internal control deficiencies refers to a company's public disclosure of weaknesses or deficiencies in its internal control system through its financial reports or regulatory filings.

Research on the disclosure of internal control deficiencies contributes significantly to understanding how such deficiencies directly affect stakeholders' perceptions of a company's internal control establishment and operational effectiveness (Li et al., 2017). These studies enrich the substantive content and conceptual significance of internal control systems. Academic research demonstrated that the characteristics and composition of senior management teams significantly influenced the disclosure of internal control deficiencies (Chen et al., 2016). As a critical component of corporate governance structures, the characteristics of senior management teams significantly impact internal control deficiencies, leading to varying disclosure outcomes.

2.3 Top Management Team

2.3.1 Definition of Top Management Team

A team is defined as a group collaboratively formed by both frontline employees and senior management, where members leverage their respective knowledge bases and professional expertise to collectively solve organizational problems and achieve shared objectives (Xu, 2019). In contemporary corporate management, increasing emphasis is being placed on the critical importance of teamwork, with particular focus on performance outcomes attained through collective effort.

Currently, there is no unified definition of the concept of a top management team (TMT) in the academic community. The main reason for the unclear definition of TMT lies in the significant political, economic, and cultural differences between countries, which lead to varying understandings of top management. Finkelstein and Hambrick (1990) defined TMT as including the CEO, COO, divisional heads, and senior-level managers. Scholars generally defined TMT based on their research focus. He and Liu (2019) defined TMT as the general manager, deputy general managers, board members, supervisory board members, board secretaries, CFOs, and managers of various functional departments. Xiao et al. (2014) considered TMT to include the general manager, deputy general managers, financial heads, and the board secretary. Fan and Liu (2021) argued that TMT included the directors, supervisors, and other senior executives disclosed in the financial report. Yang and Liang (2016) defined TMT as comprising the chairman, chairman of the supervisory board, general

manager, and other senior managers.

In this study, TMT refers to a group of top executives who bear the critical responsibilities of steering corporate long-term development, upholding organizational value missions, and maintaining direct accountability for enterprise performance. This team constitutes the core cohort that shapes a company's sustainable competitive advantage. Existing literature demonstrates multidimensional approaches to measuring TMTs.

2.3.2 Power of Top Management Team

Currently, there is no unified standard in academia for defining top management team power, which is commonly understood as the ability of executives to carry out their will and exert control beyond certain authorized limits based on their intentions and capabilities. In 1990, Finkelstein and Hambrick (1990) was the first to categorize top management team power into four dimensions: expert power, prestige power, structural power, and ownership power. Building on this framework, Lun (2020) further divided top management team power into ownership power, structural power, and personal ability power.

In China, the earliest quantification of executive power was proposed by Lu (2018), who measured executive power using three indicators: CEO duality, executive tenure, and the proportion of executive directors. Zhao and Zhang (2013) expanded this approach by selecting five indicators to measure managerial power, employing principal component analysis to compute and consolidate these indicators into a comprehensive executive power score, where a higher value indicates greater executive power. He and Liu (2019) further refined the measurement of executive power by incorporating internal and external uncertainties of the firm. They used eight indicators to assess CEO power intensity, resulting in a more comprehensive framework for evaluating executive power.

Top management team typically wield a certain degree of power, and the extent of power is often commensurate with their ability to access resources and information. The greater an executive's power, the stronger their capacity to obtain information. The level of power held by the top management team directly affects their decision-making autonomy, creating differences in motivation and disclosure willingness, which in turn influences the perceived severity of internal control deficiency disclosures (Li, 2013). Although relevant regulations provide clear requirements for internal control development within companies, in practice, it largely

remains a matter of self-regulation and inclination. Under the mandatory internal control reporting requirements for publicly listed companies, executives may exercise discretion in their actions, sometimes intentionally downplaying the severity of disclosed deficiencies.

2.4 Cognitive Biases

Human decision-making exhibits irrational behaviors, which fundamentally stem from the inherent limitations of cognitive capacity. Under such constraints, individuals inevitably accept the existence of cognitive biases and proceed to make decisions under these biased conditions (Ren & Xi, 2014). Cognitive biases is defined as the degree of deviation between perception and objective reality.

The classification of cognitive biases varies depending on the analytical perspective. Based on cognitive processing stages: in the pre-processing stage (early cognition), biases include anchoring bias, availability bias, and heuristic bias; during the information-processing stage (mid-cognition), self-attribution bias and overconfidence emerge; in the post-processing stage (cognitive feedback), hindsight bias and confirmation bias occur (Yan & Chen, 2013).

Overconfidence stems from management's past experiences, only when executives have tasted success do they develop the cognitive soil for overconfidence to take root. Within the bounds of bounded rationality, these experiences foster overconfidence, inevitably leading management to develop the "bad habit" of path dependence. This manifests when managers subconsciously rely on past personal experiences to guide current decisions, a phenomenon known as "heuristic bias."

Specifically, heuristic bias describes how individuals disproportionately weigh familiar knowledge or experiences over other information, using established mental frameworks to interpret new situations (Ren & Xi, 2014). In high-pressure corporate environments where executives face information overload, resorting to such cognitive shortcuts is often a survival mechanism.

This study limits cognitive bias to the mid-cognition (processing) stage, specifically examining self-attribution and overconfidence. Furthermore, because overconfidence more distinctly reflects individual heterogeneity, and since self-attribution can be viewed as a behavioral manifestation of overconfidence, this study defines cognitive bias as overconfidence during the information-processing

stage.

2.5 Pay Equity

The equity of top management team compensation has a significant impact on both individual executive behavior and corporate operations. Adams' Equity Theory, proposed in 1963, posits that equity is a psychological perception formed when organizational members compare their own input-output ratio (work contributions versus rewards) with that of other reference points (Zhang et al., 2018). Specifically, individuals assess equity by comparing whether their reward-to-effort ratio is equitable relative to others (Zhang et al., 2018). Therefore, pay equity can be defined as employees' perception of fairness in the compensation system and payment process, which is formed through such comparisons.

Pay equity is inherently a form of relative fairness. Due to varying levels of contribution among employees at different organizational tiers, compensation disparities naturally arise, between executives and rank-and-file employees, as well as between core and non-core executives (Chang, 2016). These differentials fundamentally reflect internal pay equity.

As rational economic agents, executives evaluate their compensation not only against internal peers but also against industry counterparts at similar levels (Xu & Tan, 2018). Equity preference theory suggests that the motivational effect of compensation is moderated by psychological comparisons between one's own input-reward ratio and that of reference others (Wang et al., 2016). Perceptions of fairness influence decision-making, thereby altering real-world economic outcomes. When individuals perceive an imbalance between their contributions and rewards, they may experience negative psychological reactions and attempt to restore equity through behavioral adjustments, such as reducing effort or seeking alternative compensation. The degree of equity in top management team compensation affects executives' assessment of whether their compensation satisfies their expectations, consequently impacting their decision-making behaviors, particularly regarding the commission of asset appropriation offenses (Gu & Xie, 2021).

According to Agency Theory, the dual mechanisms for constraining and incentivizing managerial behavior include compensation incentives, external audits, and internal controls (Xu & Tan, 2018). Effective internal controls and well-designed incentive mechanisms can mitigate conflicts arising from agency problems, thereby

reducing the likelihood of corruption. When internal controls are weak, top management team face greater opportunities for corrupt behavior.

Competitive compensation helps align the interests of managers and shareholders, creating incentive compatibility. When top management receive appropriate and effective incentives, their personal interests become consistent with the economic outcomes of sound internal controls (Chen et al., 2009). This alignment enhances managerial efficiency and discourages self-serving motives.

2.6 Conceptual Framework

The conceptual framework of this study is based in Agency Theory and Information Asymmetry Theory, which examine how top management team influences the disclosure of internal control deficiencies. This framework incorporates three independent variables: power of top management team, cognitive biases, and pay equity. The study investigates the impact of these variables on the dependent variable, disclosure of internal control deficiencies.

The conceptual framework of this study, as shown in the Figure 2.1, formulates the logical relationships between the variables. It aims to clearly present the potential impact of top management team characteristics on the disclosure of internal control deficiencies.

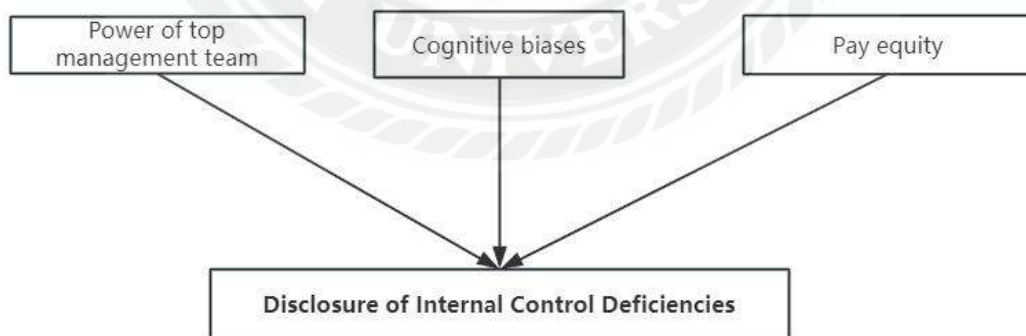


Figure 2.1 Conceptual Framework

Chapter 3 Research Methodology

3.1 Research Design

This study employed a quantitative questionnaire survey method to examine the impact of top management team characteristics, specifically power, cognitive biases, and pay equity, on the disclosure of internal control deficiencies in enterprises. The questionnaire was designed based on Agency Theory and Information Asymmetry Theory, utilizing a 5-point Likert scale to measure executive team attributes.

Data were collected through an online survey platform (Questionnaire Star) targeting member companies of the Xiamen Listed Companies Association. The study aimed to provide empirical evidence for optimizing corporate internal control disclosure mechanisms and to offer policy recommendations to regulatory authorities for enhancing information disclosure requirements.

3.2 Population and Sample

This study surveyed 325 member companies of the Xiamen Listed Companies Association, covering executives (including CEOs, CFOs, and board members) from various sectors including manufacturing, finance, and technology. As core members of the association, these listed companies play a vital role in regional economic development.

The manufacturing enterprises (accounting for 45%) serve as the backbone of Nanjing's real economy, with their corporate governance standards directly impacting the stability of local industrial chains. Financial sector members (18%) demonstrate exemplary practices in capital allocation and risk management, while technology innovation firms (25%) represent the direction of Xiamen's economic transformation and upgrading.

The top management teams of these companies (including CEOs, CFOs, and board members) not only demonstrate professional management capabilities in business operations but also actively participate in regional economic policy formulation and industry standard development through the association platform. Through questionnaire surveys with these executives, this study gained in-depth understanding of critical issues in listed companies' governance practices, providing

industry-representative empirical evidence for optimizing corporate internal control mechanisms.

3.3 Hypothesis

H₁: Power of top management team has a negative impact on the disclosure of internal control deficiencies.

H₂: Cognitive biases have a negative impact on the disclosure of internal control deficiencies.

H₃: Pay equity has a positive impact on the disclosure of internal control deficiencies.

3.4 Research Instrument

Based on the objectives of this study, a structured questionnaire was designed to systematically examine the impact of executive team power, cognitive biases, and pay equity on disclosure of internal control deficiencies behaviors. The questionnaire was administered online through the professional survey platform "Questionnaire Star."

This standardized questionnaire consists of 28 items, including:

4 items examining the basic characteristics of top management team, covering: gender, position level, tenure duration, professional background, company size

6 items measuring the power of top management team

6 items measuring cognitive biases

7 items measuring pay equity

5 items measuring disclosure of internal control deficiencies

All items used a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

3.4.1 Power of Top Management Team Scale

Power may lead managers to pursue improper personal gains while disregarding internal control regulations, thereby significantly compromising the authenticity and reliability of internal control information (Sun et al., 2019). Consequently, the validity and credibility of internal control reports could be called into question.

However, the fundamental principle underlying the establishment and implementation of internal control systems is to ensure checks and balances within corporate governance structures, clear delineation of responsibilities, and operational processes (Li et al., 2011). Excessive executive power disrupts this balance of power, enabling senior managers to create more asymmetric and opaque information environments. This undermines the effectiveness of internal control mechanisms and ultimately weakens corporate governance outcomes. The magnitude of top management team power may influence how senior managers perceive and report the authenticity and severity of existing control deficiencies (Li et al., 2011).

Table 3.1 Power of Top Management Team Scale

Power of Top Management Team Scale	
Q1	The top management team retains exclusive authority for final decisions on strategic business matters, with limited involvement from middle management.
Q2	The top management team exerts substantial influence over board decision-making processes while experiencing minimal constraints from independent directors or major shareholders.
Q3	The top management team exercises complete discretion in allocating critical organizational resources (including budgetary funds and key personnel assignments).
Q4	Senior executives possess autonomous authority to formulate compensation incentive structures without substantive external oversight.
Q5	The top management team maintains unilateral control over both the timing and substantive content of internal information disclosures.
Q6	When the top management team engages in misconduct, the company's internal mechanisms (e.g., the audit committee) can intervene promptly.

3.4.2 Cognitive Biases Scale

Internal control information, as one of the most judgment-intensive professional disclosures, can hardly be recognized by management in a completely comprehensive and objective manner (Zheng et al., 2021). Even if management possesses such capability, prioritizing information disclosure among numerous competing obligations would prove economically inefficient for individual executives. Divergent perceptions may lead to identical outcomes, while identical outcomes do not necessarily imply consistent intentions.

Cognitive biases influence managerial cognition by predisposing executives to

employ heuristic-based strategies when generating internal control information (Sun et al., 2019). Simultaneously, these biases affect the constraints on managerial capability and opportunity, leading to unintentional selective disclosure behaviors. The top management team's assessment of internal controls may consequently distort control-related information disclosures.

Table 3.2 Cognitive Biases Scale

Cognitive Biases Scale	
Q7	Even when signs of internal control deficiencies exist, the top management team remains convinced that current control measures are sufficiently effective, requiring no additional disclosure.
Q8	The top management team believes industry experience alone is adequate to assess the severity of control deficiencies, seldom seeking external audit opinions.
Q9	When internal control weaknesses implicate management's own responsibilities, disclosure content tends to be deliberately obfuscated or delayed.
Q10	Regarding control deficiencies in innovative business areas (e.g., digital transformation gaps), the TMT prefers internal resolution.
Q11	The framing of control deficiencies (e.g., "system vulnerability" vs. "operational error") influences management's disclosure decisions.
Q12	Recent negative events in capital markets (e.g., peer companies penalized for control issues) significantly increase executives' sensitivity to disclosing similar deficiencies.

3.4.3 Pay Equity Scale

The impact of pay disparity on organizational outcomes presents a theoretical paradox. When pay gaps exist, whether within the top management team or between executives and employees, moderate disparity can effectively incentivize agent effort, reduce monitoring costs, and enhance managerial motivation, thereby improving firm performance proportionally with increasing pay differentials (Chang, 2016). However, contradicting this perspective, excessive pay disparity may trigger executive dissatisfaction, decrease work efficiency, and impair collaboration within the TMT, ultimately undermining organizational objectives and deteriorating firm performance.

From a fairness theory perspective (grounded in equity theory), both external pay equity (market competitiveness) and internal pay equity (organizational justice)

significantly influence executive behavior. Lower fairness levels, whether internal or external, indicate suboptimal compensation structures that may: create psychological imbalance among executives, and adversely affect the disclosure of internal control deficiencies (Xu & Tan, 2018).

Table 3.3 Pay Equity Scale

Pay Equity Scale	
Q13	When there is a significant pay disparity between executives and ordinary employees, I may choose to remain silent about identified internal control issues.
Q14	Under conditions of pay inequity, I tend to prioritize short-term performance outcomes.
Q15	When peer companies face penalties for internal control failures, I exercise greater caution in disclosure decisions.
Q16	When executive compensation is explicitly tied to internal control quality (e.g., through clawback provisions).
Q17	The management team demonstrates greater initiative in disclosing control deficiencies.
Q18	The proportion of equity-based incentives positively correlates with executives' willingness to disclose material internal control weaknesses.
Q19	Transparent compensation disclosure policies effectively reduce executives' tendency to manipulate internal control reporting due to perceived unfairness.

3.4.4 Disclosure of Internal Control Deficiencies Scale

Internal control deficiency information may be exploited by executives as a tool to pursue personal wealth, material benefits, and external reputation. To reach favorable conclusions about control effectiveness, management may deliberately withhold disclosures or lower reporting standards (Li et al., 2017).

Table 3.4 Disclosure of Internal Control Deficiencies Scale

Disclosure of Internal Control Deficiencies Scale	
Q20	Our company typically discloses identified internal control deficiencies promptly upon discovery, without intentional delay.
Q21	For internal control deficiencies that may significantly impact stock price, the company may stagger disclosures to select appropriate timing.
Q22	Our organization provides specific and unambiguous descriptions of internal control deficiencies, avoiding vague or generalized characterizations.

Q23	When peer companies face regulatory penalties for similar control issues, this motivates our firm to enhance the rigor of our own deficiency disclosures.
Q24	Our company demonstrates a proactive approach by voluntarily disclosing all material internal control deficiencies, even when such disclosures may trigger adverse market reactions.

3.5 Reliability and Validity Analysis of the Scale

3.5.1 Questionnaire Reliability Analysis

Reliability analysis assesses the consistency and precision of attitudinal scale measurements. The evaluation is conducted through Cronbach's alpha coefficient analysis, with the following interpretive thresholds:

Values below 0.6 indicate poor reliability

Values between 0.6 and 0.7 suggest acceptable reliability

Values ranging from 0.7 to 0.8 demonstrate good reliability

Values exceeding 0.8 signify high reliability

Table 3.5 Reliability Analysis

Scale	Items	Cronbach's α
Power of the top management team	6	0.824
Cognitive biases	6	0.781
Pay equity	7	0.814
Disclosure of internal control deficiencies	5	0.772

As demonstrated in Table 3.5, the reliability test results indicate that all variables achieved Cronbach's alpha values exceeding 0.7, confirming satisfactory overall questionnaire reliability.

3.5.2 Questionnaire Validity Analysis

Validity analysis evaluates the effectiveness and appropriateness of questionnaire design. Generally, higher validity indicates more rational questionnaire construction and greater capacity to reflect true conditions. The study used both the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity to verify validity.

In Table 3.6, the Kaiser-Meyer-Olkin (KMO) measure yielded a value of 0.842,

exceeding the threshold of 0.8, which indicates excellent questionnaire validity.

Table 3.6 Validity Analysis

KMO and the Bartlett's Sphericity Test		
KMO		0.842
Bartlett Test	Approximate chi-square	732.154
	df	219
	Sig.	0.000

3.6 Data Collection

This study used an online questionnaire survey methodology, inviting a total of 325 executives from listed companies to participate. The questionnaire was distributed through WeChat platform to targeted respondents. After data cleaning and validity verification, 307 valid responses were ultimately obtained, yielding a high effective response rate of 94.5%.

The exceptional response rate not only reflects respondents' strong engagement with the research topic, but also demonstrates the efficiency and convenience of WeChat as an academic survey platform. This successful data collection has established a reliable sample foundation for subsequent statistical analysis.

3.7 Data Analysis

This study conducted reliability and validity tests to verify the measurement quality of the research instrument. Using SPSS software, this study examined the internal consistency (Cronbach's alpha) and construct validity (KMO and Bartlett's test) of all measurement scales, including power, cognitive biases, pay equity, and internal control deficiency disclosure dimensions.

Correlation analysis was performed to identify potential relationships between key variables. These preliminary findings informed regression analysis.

Chapter 4 Findings

4.1 Demographics

Table 4.1 Demographic Analysis Results

Demographic Characteristic	Category	Frequency	Percentage (%)
Gender	Male	198	64.5
	Female	109	35.5
Position Level	CEO/General Manager	45	14.7
	CFO/Financial Director	62	20.2
	Other Executive Officer	78	25.4
	Board Member	92	30.0
	Supervisory Board Member	30	9.8
Tenure duration	Less than 1 year	37	12.1
	1-3 years	112	36.5
	3-5 years	98	31.9
	More than 5 years	60	19.5
Professional background	Finance/Accounting	89	29.0
	Legal/Compliance	46	15.0
	Engineering/Technology	52	16.9
	Management	64	20.8
	Finance/Investment	31	10.1
	Information Technology	18	5.9
	Other	7	2.3
Compony size (total assets)	Under ¥5 billion	103	33.6
	¥5-10 billion	128	41.7
	Over ¥10 billion	76	24.7

1) **Gender Composition:** Male executives accounted for 64.5% (n=198) of respondents, while female executives comprised 35.5% (n=109).

2) **Position Distribution:** Board members represented the largest proportion (30.0%, n=92), followed by other executive officers (25.4%, n=78). The significant representation of CFOs (20.2%, n=62) underscores the pivotal role of financial leadership in internal control systems.

3) **Tenure Duration:** Executives with tenure exceeding 5 years constituted 19.5% (n=60) of the sample, reflecting the current turnover dynamics among listed company executives.

4) **Professional Background:** Finance/Accounting (29.0%) and Management (20.8%) backgrounds collectively accounted for nearly 50% of respondents, forming the core decision-making group. Legal/Compliance (15.0%) and Engineering/Technology (16.9%) professionals served as complementary roles. The limited representation of IT specialists (5.9%, n=18) highlights the talent gap in digital transformation among traditional industries.

5) **Company Size:** Firms with assets between ¥5-10 billion represented the largest segment (41.7%, n=128), followed by: Companies under ¥5 billion: 33.6% (n=103) and companies over ¥10 billion: 24.7% (n=76).

4.2 Correlation Analysis

Table 4.2 Correlation Analysis Results

Dimension	Power of top management team	Cognitive biases	Pay equity	Disclosure of internal control deficiencies
Power of top management team	1			
Cognitive biases	0.486**	1		
Pay equity	-0.374**	-0.341**	1	
Disclosure of internal control deficiencies	-0.423**	-0.369**	0.476**	1

The analysis demonstrates statistically significant correlations between key variables at the 0.01 level. Specifically, both power of top management team ($r = -0.423$, $p < 0.01$) and cognitive biases ($r = -0.369$, $p < 0.01$) show significant negative correlations with disclosure of internal control deficiencies, while pay equity exhibits a significant positive correlation with disclosure of internal control deficiencies ($r = 0.476$, $p < 0.01$). These results indicate that greater power concentration and stronger cognitive biases are associated with poorer disclosure practices, whereas more equitable compensation structures correlate with enhanced transparency in reporting internal control weaknesses.

4.3 Multiple Regression Analysis

Table 4.3 Multiple Regression Analysis Results

	Standardized coefficient	t	p
	Beta		
Power of top management team	-0.32	-5.77	< 0.01
Cognitive biases	-0.43	-4.12	< 0.01
Pay equity	0.47	3.92	< 0.01
R ²	0.47		
Adjusting R ²	0.52		
DW	1.864		

In Table 4.3, the regression analysis yielded the following statistically significant results:

Power of top management team showed a significant negative impact on internal control deficiency disclosures ($\beta = -0.32$, $t = -5.77$, $p < 0.01$), thereby supporting Hypothesis 1.

Cognitive Biases showed the strongest negative effect ($\beta = -0.43$, $t = -4.12$, $p < 0.01$), confirming Hypothesis 2.

Pay Equity showed a significant positive influence ($\beta = 0.47$, $t = 3.92$, $p < 0.01$), providing support for Hypothesis 3.

The model demonstrated good explanatory power with an adjusted R² of 0.52. The Durbin-Watson statistic of 1.864 indicated no autocorrelation in the residuals.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

5.1.1 Power of Top Management Team Has a Negative Impact on the Disclosure of Internal Control Deficiencies.

There exists a significant negative correlation between executive team power and the disclosure of internal control deficiencies. The greater the executive team's authority, the higher the likelihood of concealing reported internal control weaknesses. This suggests that executives may leverage their influence to suppress disclosure or downplay the severity of such deficiencies.

These findings support the "economic man" hypothesis in analyzing executive behavior. When granted excessive residual control rights, executives tend to prioritize self-interest, allowing their power to supersede internal control requirements. Consequently, internal control systems fail to fulfill their fundamental purposes: improving corporate governance, standardizing business practices, safeguarding external investor interests, and ensuring efficient market operation.

5.1.2 Cognitive Biases Have a Negative Impact on the Disclosure of Internal Control Deficiencies

There exists a significant negative correlation between cognitive biases within executive teams and the quality of internal control deficiency disclosure. Systematic cognitive limitations in managerial decision-making processes substantially undermine the transparency of internal control reporting. Cognitive biases create a selective information filter that systematically admits only data confirming preexisting beliefs while instinctively rejecting contradictory evidence, resulting in fundamentally distorted perceptions of organizational risks.

This phenomenon manifests most prominently through pervasive executive overconfidence. When processing complex information under typical operational constraints, management teams consistently default to rapid, intuitive judgments rather than engaging in more deliberate analytical processes. This tendency is particularly pronounced in disclosure decisions due to three reinforcing factors: first, the absence of direct economic benefits from transparent reporting creates weak internal incentives; second, regulatory frameworks primarily emphasize prohibitions against false statements rather than positively reinforcing comprehensive disclosure;

third, the inherent complexity of operational priorities often relegates disclosure obligations to secondary status. Consequently, when executive attention is divided among competing demands, cognitive biases inevitably dominate disclosure decisions, leading to systematic underreporting of material weaknesses and minimization of identified control deficiencies.

5.1.3 Pay Equity Has a Positive Impact on the Disclosure of Internal Control Deficiencies

A significant positive correlation exists between pay equity within executive teams and the completeness of internal control deficiency disclosures. Specifically, as compensation distribution among top management becomes more equitable, companies demonstrate more comprehensive disclosure of internal control weaknesses.

Enhanced pay equity within executive teams effectively curbs the motivation to conceal internal control deficiencies by reinforcing self-worth realization among top management.

5.2 Recommendation

5.2.1 Strengthening the Disclosure Standards for Internal Control Deficiencies

Current regulations on internal control information disclosure remain insufficient despite their multiplicity, characterized by inadequate enforcement mechanisms. Regulatory authorities must substantially strengthen penalties for nondisclosure of internal control deficiencies to ensure the authenticity, legality and reliability of corporate disclosures. The content, severity and remediation status of internal control deficiencies disclosed in listed companies' self-assessment reports reflect critical risk exposures that directly influence external auditors' engagement decisions and audit pricing. However, analysis reveals pervasive incompleteness in these reports, attributable primarily to the existing regulatory framework's indeterminate disclosure standards and ambiguous classification criteria for control weaknesses. To rectify this situation, regulatory bodies should implement mandatory standardization of both the format and substantive content of internal control self-assessment reports, thereby enhancing the authenticity and credibility of disclosed information while providing investors with more dependable decision-making references. This regulatory enhancement would serve to align corporate reporting practices with the fundamental objectives of internal control systems in safeguarding investor interests and

maintaining market integrity.

5.2.2 Establishing a Long-term Executive Learning Mechanism

The establishment of a sustained learning system for the top management team functions as a vital organizational mechanism to address cognitive rigidities in strategic leadership. This institutionalized approach ensures continuous exposure to novel information inputs, enabling systematic recalibration of executive mental models that otherwise tend to become constrained when leaders overestimate the adequacy of their current knowledge base. The framework's efficacy fundamentally relies on implementing secure tenure structures, as only when the senior leadership team operates with extended temporal horizons do they fully commit to developing specialized human capital and embracing genuinely long-term strategic orientations.

This learning architecture operates through an integrated set of dynamics: it diminishes the distorting effects of short-term performance myopia, creates capacity for multifaceted analysis of organizational challenges, and fosters what may be characterized as "strategic humility" - a disciplined practice of periodically elevating beyond immediate operational demands to engage in deliberate contemplation of sustainable value creation. When properly embedded within the organization, such learning systems transform executive cognition from a potential governance vulnerability into a strategic capability that enhances both decision-making quality and organizational resilience.

The transition from overconfident, experience-constrained judgment to evidence-informed, forward-looking leadership represents the most consequential benefit of these learning mechanisms. This cognitive shift carries particularly significant implications for organizational adaptability in today's volatile business environments, where conventional leadership paradigms often prove inadequate. The top management team's enhanced learning capacity enables more nuanced interpretation of environmental signals, more creative solution generation, and more effective balancing of competing stakeholder demands over extended time horizons.

5.2.3 Optimizing Top Management Team Compensation Systems

Corporate compensation committees should design executive pay structures by comprehensively considering organizational specifics, adhering to a "performance-driven with equitable balance" principle while accounting for the psychological impact of external pay benchmarks. Enhancing the independence of

compensation committees is crucial to dynamically adjust incentive ratios based on rigorous performance evaluation metrics, with particular attention to incorporating executive perquisites into the assessment framework to effectively curb excessive benefits.

Transparency reforms should focus on improving disclosure mechanisms and implementing regular pay satisfaction surveys. These measures provide objective benchmarks for effort-reward evaluations, helping to mitigate cognitive biases in self-assessment of contributions while reducing conflicts arising from pay disparity perceptions.

For long-term alignment, equity-based compensation with structured vesting schedules should be implemented to synchronize executive interests with sustainable corporate value creation, simultaneously addressing hidden agency risks.

In state-owned enterprises (SOEs), where unique institutional constraints like pay regulations and ownership structures exist, tailored reforms should combine enhanced regulatory oversight with market-oriented talent management. This includes developing alternative incentive channels such as political career progression pathways while maintaining competitive positioning in executive talent markets. The dual emphasis on compliance and retention addresses SOEs' distinctive governance challenges while promoting organizational vitality.

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Appendix

Dear Participant,

Thank you for taking the time to complete this questionnaire amidst your busy schedule. We sincerely appreciate your participation.

This is an anonymous survey, and all responses will be used solely for academic research purposes. The data collected will not affect you or your organization in any way. There are no right or wrong answers, your honest feedback is invaluable to our study.

Your thoughtful responses will significantly contribute to our research findings. We kindly request you to answer as accurately as possible. Thank you for your support.

Wishing you all the best in your work and personal life!

1. Basic Information

- 1) Your gender:
☐ Male ☐ Female
- 2) Your position level:
☐ CEO/General Manager
☐ CFO/Financial Director
☐ Other Executive Officer
☐ Board Member
☐ Supervisory Board Member
- 3) Your tenure duration:
☐ Less than 1 year
☐ 1-3 years
☐ 3-5 years
☐ More than 5 years
- 4) Your professional background:
☐ Finance/Accounting
☐ Legal/Compliance
☐ Engineering/Technology
☐ Management
☐ Finance/Investment
☐ Information Technology
☐ Other
- 5) Your company size (total assets):
☐ Under ¥5 billion

- ☐ ¥5-10 billion
- ☐ Over ¥10 billion

2. Please mark “√” on the corresponding number, and you may select only one option.

1 = Strongly Disagree,

2 = Disagree,

3 = Not Sure,

4 = Agree,

5 = Strongly Agree

Power of the Top Management Team		5	4	3	2	1
Q1	The top management team retains exclusive authority for final decisions on strategic business matters, with limited involvement from middle management.					
Q2	The top management team exerts substantial influence over board decision-making processes while experiencing minimal constraints from independent directors or major shareholders.					
Q3	The top management team exercises complete discretion in allocating critical organizational resources (including budgetary funds and key personnel assignments).					
Q4	Senior executives possess autonomous authority to formulate compensation incentive structures without substantive external oversight.					
Q5	The top management team maintains unilateral control over both the timing and substantive content of internal information disclosures.					
Q6	When the top management team engages in misconduct, the company's internal mechanisms (e.g., the audit committee) can intervene promptly.					
Cognitive Biases		5	4	3	2	1
Q7	Even when signs of internal control deficiencies exist, the top management team remains convinced that current control measures are sufficiently effective, requiring no additional disclosure.					
Q8	The top management team believes industry experience alone is adequate to assess the severity of control deficiencies, seldom seeking external audit opinions.					
Q9	When internal control weaknesses implicate management's					

	own responsibilities, disclosure content tends to be deliberately obfuscated or delayed.					
Q10	Regarding control deficiencies in innovative business areas (e.g., digital transformation gaps), the TMT prefers internal resolution.					
Q11	The framing of control deficiencies (e.g., "system vulnerability" vs. "operational error") influences management's disclosure decisions.					
Q12	Recent negative events in capital markets (e.g., peer companies penalized for control issues) significantly increase executives' sensitivity to disclosing similar deficiencies.					
Pay Equity		5	4	3	2	1
Q13	When there is a significant pay disparity between executives and ordinary employees, I may choose to remain silent about identified internal control issues.					
Q14	Under conditions of pay inequity, I tend to prioritize short-term performance outcomes.					
Q15	When peer companies face penalties for internal control failures, I exercise greater caution in disclosure decisions.					
Q16	When executive compensation is explicitly tied to internal control quality (e.g., through clawback provisions).					
Q17	The management team demonstrates greater initiative in disclosing control deficiencies.					
Q18	The proportion of equity-based incentives positively correlates with executives' willingness to disclose material internal control weaknesses.					
Q19	Transparent compensation disclosure policies effectively reduce executives' tendency to manipulate internal control reporting due to perceived unfairness.					
Disclosure of Internal Control Deficiencies		5	4	3	2	1
Q20	Our company typically discloses identified internal control deficiencies promptly upon discovery, without intentional delay.					
Q21	For internal control deficiencies that may significantly impact stock price, the company may stagger disclosures to select appropriate timing.					
Q22	Our organization provides specific and unambiguous descriptions of internal control deficiencies, avoiding vague					

	or generalized characterizations.					
Q23	When peer companies face regulatory penalties for similar control issues, this motivates our firm to enhance the rigor of our own deficiency disclosures.					
Q24	Our company demonstrates a proactive approach by voluntarily disclosing all material internal control deficiencies, even when such disclosures may trigger adverse market reactions.					

