

# Research on the Collaborative Development Path of Enterprise Internal Control and Risk Management

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## Abstract

Grounded in the fraud triangle theory, this case study systematically examines the motives, opportunities, and self-justification mechanisms behind Taiyuan Heavy Industry's financial fraud. It reveals how the company, driven by performance pressures and governance deficiencies, systematically engaged in long-term fraudulent practices through methods such as premature revenue recognition, manipulation of completion percentages, and underreporting of expenses. The research further highlights ethical misconduct by management and the board under the frameworks of expectation theory and stakeholder theory, as well as the severe negligence of auditing institutions in maintaining integrity, objectivity, and professionalism. The case demonstrates that financial fraud is not merely a technical violation but a comprehensive outcome of governance failure, supervisory gaps, and ethical collapse. Finally, the paper proposes governance recommendations from multiple dimensions including corporate governance, industry regulation, and audit quality improvement, providing insights for building a credible capital market system.

**Keywords:** Taiyuan Heavy Industry; Fraud Triangle Theory; Internal Control Improvement; Capital Market Integrity

## 1. Introduction

Financial fraud remains a persistent challenge in capital markets, with state-owned enterprises (SOEs) being particularly vulnerable, as their involvement often triggers far-reaching trust crises and systemic risks. Taiyuan Heavy Industry, a state-controlled listed company with significant industry influence, engaged in sustained financial misconduct from 2014 to 2021. The violations included inflated revenue, manipulated profits, and concealed expenses, demonstrating prolonged duration, massive sums, and sophisticated concealment. These practices exposed deep-seated flaws in SOEs' governance mechanisms, internal controls, and external oversight systems.

In recent years, as China's capital market regulation has intensified, numerous financial fraud cases involving listed companies have been exposed. However, financial misconduct in state-owned enterprises (SOEs) remains unique due to their complex ownership structures, administrative interference, and insider control. The Taiyuan Heavy Industry case not only reflects corporate behavior distortion under operational pressures and performance evaluation mechanisms, but also exposes audit institutions' lack of independence and procedural flaws in practice. This case further highlights the fundamental role of business ethics in corporate governance.

This paper aims to provide empirical evidence and policy inspiration for improving the governance structure of state-owned enterprises, strengthening the function of audit supervision and promoting the construction of integrity culture in capital market by analyzing the case of financial fraud of Taiyuan Heavy Industry.

## **2. Introduction to Financial Fraud and Analysis of Fraud Methods**

### **2.1. Overview of Fraud**

Taiyuan Heavy Industry's financial misconduct primarily centered on the 300MW wind power project in Latanpuo, Heilongjiang's Duerbote Mongolian Autonomous County, initiated in 2012. The company simultaneously served multiple roles in this project, including supplying wind turbine equipment, undertaking EPC (Engineering, Procurement, and Construction) contracting for the wind farm, and providing construction funding. The complex transaction structure, massive capital occupation, and prolonged payment cycles objectively amplified operational risks and financial pressures. In his 2024 study on financial fraud motives in listed companies, Mou (2024) noted that when enterprises face declining core business, tight cash flow, and high debt accumulation, management is more likely to manipulate financial statements to maintain superficial operational stability. Hu (2024) also emphasized in case analysis that long-term project uncertainties and delayed fund recovery are critical contextual factors triggering financial fraud. The financial strain gradually exposed during Taiyuan Heavy Industry's Latanpuo project development aligns perfectly with the fraud background characteristics revealed by these studies.

Against this backdrop, the company began concealing operational difficulties through financial manipulation starting in 2014. Fraudulent practices persisted until 2018, then resurfaced in 2020-2021 after a one-year hiatus, spanning seven consecutive fiscal years. Notably, the company's 2020 private placement application documents still cited partially distorted financial data, further amplifying disclosure risks. Li (2025) analyzed using GONE theory that listed companies often treat financial fraud as a "crisis deferral tool" when facing delisting risks or financing constraints. Deng (2025) highlighted from an evolutionary perspective that corporate fraud frequently exhibits cross-year continuity, forming systematic deception through mutual concealment of different accounting items. Taiyuan Heavy Industry's fraudulent activities, recurring across multiple fiscal years and closely aligning with financing activities, demonstrate clear path dependence characteristics.

The consequences of financial fraud manifest in two critical aspects: severe distortion of financial information and stringent regulatory penalties. Public disclosures reveal that in 2014, the company inflated revenue by 757 million yuan (8.39% of disclosed revenue) and total profits by 155 million yuan (763.89% of disclosed profits). Excluding the fraudulent impact, the company would have turned from profitability to loss. In 2016, it falsely reported 752 million yuan in revenue. By 2018, it underreported financial expenses by 120 million yuan (14.82% of disclosed expenses) while overreporting profits by 121 million yuan (189.76% of disclosed profits). Li (2025) noted in her research on collaborative governance of listed companies' financial fraud that the failure of a single governance entity often leads to persistent fraud. Effective suppression of systemic fraud requires coordinated efforts from regulators, corporate governance structures, and intermediaries. Qiao and Hu (2025) from the perspective of short-selling institutions emphasized that external market supervision plays a crucial supplementary role in exposing fraud. The prolonged undetected fraud in the Taiyuan Heavy Industry case also reflects deficiencies in external constraint mechanisms.

Theoretically, Qin (2025) emphasizes that forensic accounting plays a pivotal role in unraveling evidence chains and defining accountability in complex fraud cases. Building on GONE theory, Cai and Lin (2025) further demonstrate that when governance constraints fail, opportunities arise, and management rationalizes actions, fraudulent behaviors tend to solidify within the "motivation-means-concealment" cycle. From an interdisciplinary perspective, Brophy (2026) reveals through long-term tracking studies of ecosystem damage that systemic risks often erupt collectively years after being concealed. Beiler and Marti (2025) highlight in their discourse analysis that organizations' narratives of "resolved issues" may mask underlying structural vulnerabilities. Wallberg and Feichtinger (2025) similarly warn that ignoring uncertain risks amplifies future governance costs. While these studies don't directly address financial fraud, their discussions on prolonged risk concealment, delayed exposure, and governance failures provide valuable theoretical insights into how Taiyuan Heavy Industry's fraudulent activities persisted for years before finally surfacing.

## **2.2. Analysis of Fraudulent Methods**

### **2.2.1. Advance Recognition of Wind Power Revenue, Fabricating Profit Basis**

The company collaborated with Heilongjiang Ruihao Technology Group Co., Ltd. to develop the 300MW Wind Power Project in Latanpuo, Duerbote Mongolian Autonomous County, Heilongjiang Province (hereinafter referred to as the "Latanpuo Project"). This project became the core vehicle for fraudulent activities and served as the primary scheme enabling Taiyuan Heavy Industry to turn losses into profits in 2014. In the Latanpuo Project, Taiyuan Heavy Industry designed a transaction structure involving "equipment sales-post-sale leaseback-guaranteed repurchase." The company first sold wind turbine equipment to Ruihao Technology, then facilitated Ruihao's sale of the equipment to Kangfu Leasing and the signing of a post-sale leaseback agreement. Simultaneously, Taiyuan Heavy Industry, acting as the guarantor, committed to repurchasing the equipment if Ruihao failed to pay rent on time. During the transaction, Taiyuan Heavy Industry deliberately conflated the concepts of legal ownership and accounting control. After legally relinquishing ownership of the equipment, the company used

this as a basis to prematurely recognize sales revenue, violating the core accounting principle that revenue recognition requires "transfer of control." This maneuver directly enabled the 2014 financial statements to achieve a "glamorous turnaround," inflating revenue by 757 million yuan and total profits by 155 million yuan. Without this operation, the company would have faced significant losses amid a sharp decline in its core business sector.

In 2014, the core business revenues of its rolling and forging equipment, crane equipment, and mining and coking equipment declined by 32.57%, 17.34%, and 58.15% respectively. This artificially inflated revenue figure masked the underlying weakness in its core operations.

### **2.2.2. Manipulating EPC Project Revenue and Costs to Maintain a Long-term Fraudulent Appearance**

In the EPC model, the percentage of completed work serves as the key criterion for revenue recognition. Taiyuan Heavy Industry, leveraging its dominant position as the general contractor over project progress data, falsified the completion rate to inflate revenue. The Latao Bubble project adopted the EPC general contracting model, where the extended project duration and the difficulty in accurately measuring completion rates created opportunities for Taiyuan Heavy Industry to engage in long-term fraudulent practices.

In the revenue recognition process, Taiyuan Heavy Industry Group engaged in revenue manipulation for wind farm projects (excluding self-sourced tower construction operations), primarily by manipulating completion percentage calculation rules to inflate current revenue figures. Leveraging its dominant position as the general contractor controlling project progress data, the company falsely reported actual project progress, illegally overreporting revenues. In 2016 alone, this method inflated revenues by 752 million yuan, nearly matching the scale of 2014's fraudulent practices. On the cost side, it further adjusted profits through inter-period cost transfers and underreporting expenses. For its self-sourced tower construction business in the Latao Bubble project, Taiyuan Heavy Industry Group not only overstated revenues but also underreported related costs, transferring part of these costs to subsequent years to artificially reduce current-year cost pressures. This dual strategy of "revenue inflation + cost understatement" caused profit figures in fraudulent years to severely deviate from actual operations. For instance, in 2018, through this combination of cost manipulation and understated financial expenses, the company overstated total profits by 121 million yuan, accounting for 189.76% of disclosed profits, thereby masking the project's actual profitability issues.

### **2.2.3. Underreporting Financial Costs in Financial Leasing to Artificially Inflate Profits**

The financial leasing transactions involved in the "Bubble Pop" project were used for early revenue recognition, with the resulting financial expenses serving as a tool for profit manipulation. According to the cooperation agreement, Taiyuan Heavy Industry, as the guarantor of the sale-leaseback agreements, assumed guarantee responsibilities. When the partner Ruihao Technology defaulted on rent payments, Taiyuan Heavy Industry was obligated to repurchase the equipment. The interest expenses generated from this transaction should have been reasonably allocated over accounting periods and recorded as current financial expenses under accounting standards. However, Taiyuan Heavy Industry failed to comply with this accounting requirement. Instead, it

deferred financial leasing expenses indefinitely without timely transferring them to subsequent fiscal years, thereby artificially inflating profits through deliberate underreporting of financial expenses. Data shows that in 2018, the underreported financial expenses amounted to 120 million yuan, accounting for 14.82% of the disclosed financial expenses for that period. The underreporting of financial expenses directly contributed to the increase in total profits. This practice, combined with revenue manipulation techniques, formed a complete chain of profit fabrication.

Notably, He Ji, then CFO, was fully aware that financial leasing expenses had been improperly recorded as long-term liabilities, yet failed to implement effective controls. By allowing this non-compliant accounting practice to persist for years, he inadvertently became a key enabler of fraudulent activities.

### **3. Analysis of Motivations for Financial Fraud**

#### **3.1. Pressure: Double Pressure of Management and Assessment Forces Fraud**

##### **3.1.1. Operational Pressure**

Struck by the dual pressures of declining core business and heavy debt, Taiyuan Heavy Industry's financial performance began deteriorating after 2011, with stagnant growth in its main operations becoming the primary operational challenge. By 2014, its core businesses had experienced a comprehensive downturn: revenues from rolling and forging equipment, crane manufacturing, and mining and coking equipment plummeted by 32.57%, 17.34%, and 58.15% respectively. Multiple product inventories far exceeded market sales, exacerbating the growing conflict between product overstock and shrinking demand. Meanwhile, the wind power business—once hailed as the company's transformative hope—faced funding difficulties with the La Tan Bubble project, which was plagued by massive investments and protracted payment cycles. The project's investment accounted for one-third of the company's net assets at the time, yet by completion, 1.4 billion yuan remained unrecovered, further intensifying the cash flow crunch.

High debt levels became another crushing burden for the company. After 2014, its debt-to-asset ratio first exceeded 80%, later soaring to over 90%. The interest-bearing debt surpassed 10 billion yuan in 2015, with a 9-billion-yuan gap between book capital and debt. Exorbitant interest payments kept financial expenses persistently high, reaching nearly 1 billion yuan in some years—far exceeding concurrent profit margins. Under the dual pressures of declining core business profitability and soaring financial costs, the company would face consecutive annual losses unless it engaged in financial manipulation. Under the old securities regulations, three consecutive years of losses could trigger delisting risks, creating the core operational pressure that drove fraudulent practices.

##### **3.1.2. Assessment Pressure**

Performance anxiety under state-owned enterprise evaluation systems. As a state-controlled listed company, Taiyuan Heavy Industry's management faces rigorous performance assessments

from both SASAC and the group level, with metrics directly tied to executive compensation and career advancement. The penalty announcement explicitly states that then General Manager Fan Weimin orchestrated the premature recognition of revenue from the "bubble-pulling" project and fabricated engineering business income to meet targets. Had the company failed to inflate profits through early revenue recognition in 2014, it would have swung from profitability to losses. This means the management not only missed their performance goals but also risked penalties including demotion and pay cuts.

Furthermore, the 2020 private placement plan exacerbated the pressure to manipulate financial performance. To meet the financial targets for the private placement, the company fabricated financial data in its application documents, maintaining a superficially profitable status to bolster investor confidence and ensure the financing plan's smooth execution. This dual pressure of "meeting performance targets and securing financing" drove management to cross compliance boundaries, resorting to financial fraud to conceal the true state of operations.

### **3.2. Opportunity: Governance Defects and Transaction Complexity Create Space for Fraud**

#### **3.2.1. Internal Governance is Ineffective, and the Internal Control Mechanism is a Mere Formality**

Taiyuan Heavy Industry's flawed internal governance structure created a perfect breeding ground for fraudulent practices. At the decision-making level, the company's major projects lacked scientific justification. In 2009, it recklessly invested 300 million yuan to build a wind turbine gearbox plant, ignoring the industry's overcapacity at the time. In 2015, it borrowed over 1 billion yuan to establish a new energy equipment company during the wind power industry's downturn, resulting in consecutive annual losses. This impulsive decision-making approach laid the groundwork for later fraudulent cover-ups of investment missteps.

From a supervisory standpoint, the internal control chain suffered a complete breakdown. Wang Chuangmin, then chairman, and Zhang Zhide, vice chairman, were fully aware of the irregularities in the Latan Bubble project's actual progress and revenue recognition but failed to intervene. He Ji, the financial director, knew about the premature revenue recognition and the improper accounting of financial lease expenses yet took no effective control measures. Li Yumin, an independent director and chairman of the audit committee, also neglected to monitor the abnormal financial data in the annual report. The management's collective "turning a blind eye to fraud" rendered the internal supervision mechanism completely ineffective, allowing fraudulent activities to persist for seven years.

#### **3.2.2. The Transaction Mode is Complex, and the Fraud is Difficult to be Detected**

The "EPC Engineering Turnkey + Financial Leasing" hybrid model adopted by the Latan Bubble project inherently provides cover for fraudulent activities due to its complexity. Under the EPC framework, the calculation of project completion percentage inherently carries subjectivity, allowing Taiyuan Heavy Industry to manipulate completion rates for revenue manipulation. The financial leasing transaction involves three parties—Taiyuan Heavy Industry, Ruihao Technology, and Kangfu Leasing—resulting in a lengthy transaction chain with divergent legal and accounting treatments.

The company exploited this conceptual complexity by misrepresenting the legal relinquishment of equipment ownership as an accounting transfer of control, thereby achieving premature revenue recognition. This fraudulent scheme, built on intricate transactions, not only exceeded the discernment of average investors but also created obstacles for subsequent audits. Moreover, the nine-year span from 2012 to 2021 allowed the fraudulent activities to persist and remain concealed, with annual financial adjustments masking each other and further reducing the likelihood of early detection.

### **3.2.3. There is a Time Lag in External Supervision, with Insufficient Early Intervention**

The fraudulent activities spanned 2014-2021, a period marked by the transition between the old and new Securities Law and regulatory delays in addressing historical issues. In the early stages, authorities focused on verifying recent annual reports for listed companies' premature revenue recognition practices. Taiyuan Heavy Industry's deceptive methods, however, were more covert and persistently employed inter-period adjustments to conceal prior irregularities, preventing regulators from detecting systemic fraud in a timely manner. This regulatory gap created an external window for Taiyuan Heavy Industry's prolonged fraudulent operations, which only came to light when accumulated violations reached a critical threshold.

### **3.3. Rationalization: Management's Self-justification Logic for Fraud**

Taiyuan Heavy Industry's management has used a series of self-justifying narratives to downplay the psychological guilt of fraud, thereby providing psychological justification for continued fraudulent practices. On one hand, they misinterpreted the fraudulent acts as "temporary measures to address operational difficulties." Amidst the decline of core businesses and high debt levels, they viewed financial fraud as a "necessary measure" to avoid delisting risks and maintain employee stability, overlooking the critical importance of financial authenticity to capital markets. For instance, they justified the premature recognition of revenue in 2014 as a "necessary measure to ensure normal operations and prevent capital chain breaks caused by losses."

On the other hand, the state-owned controlling background fostered a "risk-absorbing" mentality among some executives. They believed that Taiyuan Heavy Industry, as a state-owned enterprise, could still secure support from the parent company or local government even if fraudulent activities were exposed, avoiding devastating penalties. Furthermore, the management attributed the misconduct to deteriorating industry conditions, claiming that financial adjustments to maintain performance were "industry-wide practices" amid the downturn in wind power and overcapacity in heavy industries, thereby providing external justification for their violations. This distorted rationalization allowed the management to evolve from initial "probationary fraud" into a seven-year systemic fraud scheme.

## **4. Analysis of Business Ethics Issues**

The financial misconduct at Taiyuan Heavy Industry was not the fault of a single executive, but rather a collective failure of multiple governance bodies including directors, supervisors, and

management. This exposes the company's complete collapse in business ethics. These entities violated fundamental principles such as honesty, accountability, and fairness. The specific issues are analyzed as follows:

#### **4.1. Theory 1: Expectancy Theory: Ethical Decision Distortion under Performance Appraisal Pressure**

##### **4.1.1. Theoretical Core**

Frum's Expectancy Theory establishes the core logic of "motivation intensity = expectancy × instrumental value × valence." The theory's key insight is that when external evaluation systems overemphasize short-term quantitative metrics, tightly link performance to personal interests, and lack effective compliance constraints, individuals may abandon ethical boundaries to pursue the "effort-performance-reward" expectation. This leads to an overestimation of "achieving performance through non-compliance" and an amplification of the risk of "compliance without meeting standards," ultimately distorting ethical decision-making.

##### **4.1.2. Ethical Issue Mapping**

###### **(1) Management Level: Actively Planning Fraud, Trading Ethical Misconduct for Short-Term Performance**

The fraudulent decision of the then general manager Fan Weimin is in line with the three-dimensional driving logic of expectation theory, and its ethical deviation has clear motivation and behavior.

Expectation Level: Around 2014, the company's core business revenues for rolling and forging equipment and crane equipment declined by 32.57% and 17.34% respectively. The sluggish performance of its main business exacerbated the risks of consecutive losses and delisting. With no hope of short-term profits under compliant operations, the management team anticipated that the EPC model for the "Bubble Pulling" project could be used to manipulate completion percentages and cross-period cost transfers, thereby artificially inflating revenue and profits to meet SASAC's assessment targets. The expectation of "fraud-performance" was amplified, becoming the most convenient path to achieve performance goals in their eyes.

Instrumental dimension: As a manager of a state-owned listed company, Fan Weimin's compensation, job security, and promotion opportunities are closely tied to quantitative metrics like annual revenue and profits. Meeting targets entitles him to full performance bonuses and recognition for "effective management," while falling short may result in salary cuts, position adjustments, or even dismissal. This rigid incentive structure further fuels the incentive to engage in fraudulent practices.

###### **(2) At the Level of Potency: Short-term Interests Override Long-term Ethical Responsibilities**

Fan Weimin prioritized personal short-term gains over corporate sustainability and capital market order, asserting that personal benefits like "job security, salary guarantees, and reputation preservation" outweighed ethical obligations such as "integrity in duties and compliance in

operations." He overlooked the detrimental effects of financial fraud on the company's long-term reputation and regulatory penalties, while also disregarding the infringement of stakeholders' rights, including investors and creditors. By orchestrating fraudulent practices—from inflating revenue, manipulating costs across periods, and recording expenses as prepaid expenses—Fan systematically falsified financial data, accounting procedures, and information disclosure, completely violating the management's ethical baseline of "diligence and loyalty in duties."

The coordinated actions of key members like then CFO He Ji were also motivated by expectation theory: Though aware that long-term unrecorded financial leasing costs violated regulations, they anticipated that colluding in fraud would secure their positions and earn team trust, while upholding principles might invite workplace ostracism. Ultimately, they allowed the violations to persist, becoming both 'enforcers' and 'enablers' of the fraudulent scheme.

#### **4.1.3. Board level: tacitly allowing fraud, in exchange for short-term benefits**

As a decision-making and supervisory body, the board's tacit approval of management fraud is essentially an ethical violation caused by the distortion of "reward-value" judgment under expectation theory.

Expectation level: The board was acutely aware of the company's operational challenges and delisting risks. In the absence of effective countermeasures, they overestimated the temporary benefits of fraudulent profit inflation—which could mask losses, prevent stock price crashes, and avert financing disruptions—while failing to foresee the long-term repercussions of the fraud's exposure.

Instrumental dimension: As a director of a state-owned listed company, maintaining stable short-term performance and avoiding major risks serves as a "accountability" to shareholders such as the State-owned Assets Supervision and Administration Commission (SASAC), while also being crucial for preserving one's reputation and job security. Tacitly tolerating fraud can circumvent regulatory accountability and shareholder scrutiny triggered by delisting, thereby fostering a perception of "tolerating fraud to avoid risks."

At the efficacy level: The board prioritizes short-term gains such as "funding security, market image maintenance, and job stability," while neglecting its statutory and ethical duty to "oversee financial authenticity." It failed to conduct substantive inquiries into irregularities in revenue recognition and cost allocation for the Latan Bubble project, nor did it require management to explain profit fluctuations, thereby becoming an "accomplice" to fraud and breaching its fiduciary duty to shareholders.

The board of directors and management form a "community of interests" due to this ethical decision distortion: management profiteers by fraud, and the board of directors avoid risks by acquiescence to fraud, both sides at the cost of the long-term interests and business ethics of the company, resulting in fraud for 9 years without being exposed, causing serious market impact and interest damage.

## **4.2. Stakeholder Theory: Ethical Imbalance of Multiple Interests**

### **4.2.1. Theoretical Core**

The Stakeholder Theory transcends the "shareholder supremacy" paradigm, positing that enterprises constitute a "community of shared interests" comprising shareholders, investors, creditors, employees, and regulators. Their survival and growth depend on the collective support and trust of all stakeholders. This theory requires businesses to safeguard the legitimate rights of diverse stakeholders, balance economic interests, legal compliance, and social responsibilities, and achieve mutual benefits through transparent and fair operations. It rejects the one-sided pursuit of short-term gains by a minority group, with particular emphasis on protecting the rights of vulnerable stakeholders such as small and medium investors and the general public.

### **4.2.2. Ethical Issues Mapping**

The financial fraud of Taiyuan Heavy Industry's management and executive is a total deviation from the stakeholder theory, which is reflected in the systematic neglect of multiple interests and the imbalance of ethical decision-making.

#### **(1) For Investors: False Information Misleads Decision-making, Breach of Duty of Good Faith**

Investor decisions are grounded in authentic financial data. However, the company's nine-year fraud scheme resulted in severe misrepresentation of financial statements for 2014-2018 and 2020-2021, with fabricated revenue of 757 million yuan and inflated profits of 155 million yuan, creating misleading signals of stable performance and solid profitability.' Many small and medium investors may have made erroneous decisions based on this information. After the fraud was exposed, the company was placed under special treatment (ST), and its stock price volatility led to asset depreciation. During the 2020 private placement, the application documents cited false data to mislead institutional investors, severely infringing on their right to information and property rights, and violating the core ethical responsibility to investors.

#### **(2) To the Creditor: Concealing Risks and Undermining Trust, Thereby Jeopardizing the Security of Creditor's Rights**

The company manipulated financial statements by inflating profits to conceal critical risks: an asset-liability ratio exceeding 80%, interest-bearing debt surpassing 10 billion yuan, and declining profitability in its core business. This enabled creditors to misjudge the company's solvency. With fabricated financial performance, creditors might extend loans or defer repayments. However, once the fraud was exposed, the company's reputation suffered, access to financing was restricted, and repayment pressure skyrocketed, exposing creditors to the risk of unrecovered debts. Furthermore, the management concealed key information like underperforming projects and unrecorded financial expenses, depriving creditors of their right to know and violating fundamental debt ethics.

### **(3) To Employees: Overdrafting the Future of the Enterprise, Rights and Interests are Damaged**

As value creators, employees' career stability and growth are intrinsically tied to the company's long-term operational health. Yet management's focus on financial manipulation at the expense of core business transformation and competitive edge enhancement has stifled sustainable development. The exposure of fraudulent practices led to the company's ST status (Special Treatment), severely restricting business expansion and partnerships. This may trigger layoffs and pay cuts, while reputational damage further constrains employee advancement. By prioritizing short-term performance over long-term employee welfare, the governance team has eroded trust between the organization and its workforce.

### **(4) For the Regulatory Authorities and the Public: Ignoring Social Responsibility and Disrupting Market Order**

As a state-owned listed company, Taiyuan Heavy Industry Group Co., Ltd. has circumvented regulatory oversight through fraudulent information disclosure, violating the Securities Law and Accounting Law. This misconduct not only squanders regulatory resources but also misleads decision-making processes. The fraudulent practices undermine the capital market's principles of fairness, transparency, and impartiality, leading to inefficient resource allocation and eroding market credibility. Given its unique status as a state-owned enterprise, it carries the public's expectations for compliant operations. The prolonged fraud has severely eroded public trust and harmed societal interests, exposing the governance team's ethical imbalance in decision-making—prioritizing personal and short-term gains over public welfare.

## **5. Analysis of Audit Failure Causes**

The critical negligence of Zhongtong Certified Public Accountants and its signatory auditors in providing audit services to Taiyuan Heavy Industry Co., Ltd. constituted the key external factor enabling the prolonged concealment of fraudulent activities in this case. The fundamental principles of professional ethics for certified public accountants encompass core requirements such as integrity, objectivity, professional competence, diligence, confidentiality, and ethical conduct. Zhongtong auditors systematically violated these principles during the audit process, failing to detect the company's seven-year systemic financial fraud, which ultimately led to audit failure. The specific causes are analyzed as follows in light of professional ethics principles:

### **(1) Violation of the principle of good faith**

Integrity is the core of CPA's professional ethics, which requires CPA to be honest and upright in all professional activities and not to be associated with false or misleading information.

An on-site inspection by the Shanxi Securities Regulatory Bureau uncovered multiple audit irregularities at Zhongtong Certified Public Accountants, including failure to determine materiality levels for individual components and inadequate implementation of revenue cycle control testing procedures. These violations were not isolated procedural oversights but demonstrated blatant disregard and complicity in financial fraud. Taiyuan Heavy Industry

continued employing fraudulent practices such as revenue manipulation and cross-period cost transfers during 2020-2021, with its annual report containing materially misstated financial data. Notably, Zhongtong issued an unqualified audit opinion without conducting proper verification. This dereliction of duty effectively provided a 'compliance endorsement' for fraudulent activities, completely deviating from the capital market 'gatekeeper's' supervisory duties and exacerbating investor misguidance.

### **(2) Violation of the Principle of Objectivity and Impartiality**

The principle of objectivity and impartiality requires CPA to maintain an independent position and attitude in the course of audit business, and to evaluate audit evidence objectively without being influenced by external factors.

Taiyuan Heavy Industry's financial records reveal multiple glaring irregularities: its core business declined in 2014 yet inflated profits by 763.89%; in 2018, it underreported financial expenses by 120 million yuan while overreporting profits by 189.76%. Despite maintaining a debt-to-asset ratio consistently above 80%, the company maintained superficial profitability, prompting Zhongtong Certified Public Accountants to forgo in-depth audits. When examining structurally complex transactions—such as "bubble-popping" audits—auditors often engaged in perfunctory reviews without substantive analysis, approving accounting treatments based solely on client-provided surface-level documentation. This "form-over-substance" auditing approach completely violates the principles of objectivity and fairness, reducing audit work to mere superficial verification of financial data and failing to uncover fraudulent practices behind transactions.

Furthermore, as an audit institution of a large state-owned enterprise, Zhongtong may face pressure to maintain long-term cooperative relationships, which further undermines its audit independence and objective judgment, leading to a "turn a blind eye" approach to issues. Such negligence reduces audit work to superficial verification of false data, failing to fulfill its supervisory duty of exposing fraud.

### **(3) Violation of the Principles of Professional Competence and Due Diligence**

Professional competence and the principle of diligence require certified public accountants to possess the necessary professional knowledge, skills, and experience for audit engagements, and to strictly adhere to audit standards in performing audit procedures to ensure the quality of audit work.

Audit planning phase: Failure to determine materiality levels for components resulted in inadequate allocation of audit resources to high-risk projects, creating audit blind spots. Control testing phase: Revenue cycle controls were superficially conducted, with oversight of revenue recognition authorization processes and the effectiveness of completion progress tracking controls, failing to identify management-driven fraud risks. Substantive procedures phase: Critical processes—including confirmation of large accounts receivable and contract assets, inventory physical verification (self-purchased tower tubes), and impairment testing (credit risk for litigating clients)—were inadequately executed, leading to insufficient audit evidence and the failure to detect fraudulent activities.

These procedural flaws resulted in audit evidence obtained by Zhongtong that lacked both sufficiency and appropriateness, making it impossible to support the issuance of an unqualified audit opinion. As a certified auditing firm, Zhongtong should have possessed the professional competence to identify such complex transaction fraud. However, the numerous procedural loopholes in its actual audit work clearly demonstrate its failure to fulfill due diligence obligations, revealing a significant deficiency in professional competence.

#### **(4) Violation of the Principles of Good Professional Conduct**

Good professional conduct principles require certified public accountants to comply with regulations and avoid damaging professional reputation. Zhongtong Accounting Firm violated multiple requirements of the "China Certified Public Accountant Audit Standards" during the audit, and was issued a warning letter by the Shanxi Securities Regulatory Bureau, which not only damaged its own reputation but also affected the credibility of the industry.

Although the financial fraud at Taiyuan Heavy Industry was concealed, if Zhongtong Certified Public Accountants had strictly adhered to auditing standards and maintained professional prudence, the issues could have been identified. However, by failing to comply with regulatory requirements and turning a blind eye to financial irregularities, the audit ultimately failed, leaving investors to suffer losses due to misleading audit opinions. Such irresponsible and regulatory-violating conduct, which deviates from sound professional ethics, has drawn regulatory warnings and serves as a wake-up call for the auditing industry.

## **6. Implications and Conclusions**

### **6.1. Implications for Enterprises and Regulation**

(1) Building a robust corporate governance "firewall": Implementing the supervisory functions of directors, supervisors, and senior management, enhancing the roles of independent directors and the audit committee, and upholding the legal bottom line through a culture of integrity.

(2) Strengthening regulation on industry-specific risks: For sectors like wind power and new energy, focus on key areas such as revenue recognition and asset impairment, and enhance regulatory guidance and on-site inspections.

(3) Strengthening the "gatekeeper" responsibility of intermediaries: This case once again demonstrates that audit failures are a major driver of fraudulent success. Regulatory authorities must continuously intensify inspections and penalties against accounting firms, improve civil compensation mechanisms, and ensure negligent auditors face severe consequences, thereby compelling them to enhance professional standards.

### **6.2. A Warning to the Audit Industry**

In the face of complex business operations and client pressures, upholding professional ethics remains the cornerstone of auditing. Professional skepticism, as the soul of auditing, is indispensable. Since initiating its transformation in 2020 by divesting loss-making businesses, Taiyuan Heavy Industry achieved revenues of 7.028 billion yuan and net profits of 85.0635

million yuan in the first three quarters of 2025, representing year-on-year growth of 9.98% and 21.80% respectively, demonstrating a positive operational trend. However, rebuilding market trust and fostering a compliance culture proves more challenging than financial recovery.

The evolution from "Taiyuan Heavy Industry" to "ST Taiyuan Heavy Industry" serves as a cautionary tale for all enterprises: only by anchoring themselves in integrity, governance, and legal boundaries can they achieve sustainable growth. The health of capital markets demands reverence and steadfast commitment from every participant.

### **6.3. Conclusion**

The financial fraud case at Taiyuan Heavy Industry serves as a classic example of the combined effects of failed state-owned enterprise governance, collapsed internal controls, and inadequate auditing. Under dual pressures from operational demands and performance evaluations, the company's management exploited the concealment of complex transaction models to conduct systematic financial fraud over seven years. Directors, supervisors, and management collectively violated business ethics, rendering internal oversight mechanisms completely ineffective. Zhongtong Certified Public Accountants breached fundamental professional ethics, with audit procedures containing critical flaws that ultimately led to audit failure. This case not only inflicted substantial losses on investors but also severely undermined the credibility of capital markets.

To curb such financial fraud, it is essential for listed companies, auditing institutions, and regulatory authorities to collaborate. Only through this concerted effort can a long-term mechanism be established to ensure that fraud is "unwarranted, unfeasible, and undesirable," thereby safeguarding the healthy and stable development of the capital market.

#### **Author Contributions:**

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