Strategic Characteristics of ESG Disclosure in the Context of Financial Restatements—Text Analysis Based on Wuliangye

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Abstract. On April 30, 2026, Wuliangye simultaneously issued a correction of prior accounting errors and its 2025 ESG report, creating a window to examine how financial restatements shape non-financial disclosure. Drawing on legitimacy, impression management, and signaling theories, this study applies Python-based textual coding to the 2024 and 2025 ESG reports. The findings reveal five strategic disclosure patterns—including governance reinforcement, positive narration, selective omission, and information offsetting—that together serve to repair legitimacy and manage impressions after the restatement. The study highlights the strategic interplay between financial and non-financial information during corporate crises, with implications for regulators and investors.

Keywords: Financial Restatement; ESG Disclosure; Strategic Information Disclosure; Legitimacy Theory; Impression Management Theory; Signaling Theory

1 Introduction

On April 30, 2026, Wuliangye Yibin Co., Ltd. issued a prior-period accounting error correction alongside its 2025 ESG report, slashing its 2025 Q1–Q3 revenue by RMB 30.307 billion and attributable net profit by RMB 15.036 billion. The synchronous publication of the two documents provides a natural setting to explore strategic ESG disclosure adjustments triggered by financial restatements[1].

Financial restatements erode corporate reputation and organizational legitimacy. As flexible narrative carriers, ESG reports serve as key impression management tools for crisis image restoration[2]. Existing literature generally separates research on restatement accounting outcomes and ESG economic implications, with limited discussions on their interactive strategic logic[3]. Based on legitimacy, impression management and signaling theories, this paper adopts Python textual coding of Wuliangye's 2024–2025 ESG reports to unpack its multi-dimensional strategic disclosure characteristics amid financial restatements.

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2 Theoretical Analysis and Research Design

(1) Theoretical Framework

Legitimacy theory argues that threatened firms restore social recognition via enhanced governance disclosures post-restatement. Impression management theory holds that managers shape favorable ESG narratives through positive tones and achievement-focused framing, consistent with post-restatement textual shifts. Signaling theory states that firms expand selective ESG disclosure to rebuild market trust once financial restatements impair financial signal credibility[4]. Drawing on the three theories, this study builds an analytical framework where financial restatements induce legitimacy erosion and reputational harm, thereby driving strategic ESG disclosure adjustments across twelve dimensions covering discourse, governance, attribution, temporality, rhetoric, sentiment, semantics, data, external endorsement, narrative logic, selective omission and ESG-financial divergence.

(2) Research Design

Wuliangye is chosen as the single-case sample for three merits: its RMB 30.3 billion restatement is an extraordinary event on China's A-share market; it boasts 18 years of mandatory ESG disclosures providing sufficient textual materials for typical case analysis; and the April 2026 incident ensures data timeliness. This study extracts data from the firm's 2024–2025 ESG reports, 2025 annual report, accounting correction announcement and relevant audit reports[5], and adopts Python text mining tools (pdfplumber, jieba, SnowNLP for text extraction, word segmentation and sentiment analysis) combined with manual verification to guarantee coding precision. Constructed based on GRI Standards and baijiu industry features, the coding framework includes 8 dimensions and 27 indicators: all quantitative metrics are calculated via programs, while categorical variables receive algorithmic preliminary screening before manual reinspection. Two coders completed independent coding, achieving an inter-coder Kappa coefficient of 0.97.

3 Encoding Results and Feature Analysis.

Table 1. Encoding Results Statistics

Primary Dimension	Secondary Indicators	2024	2025	Change Rate
Governance Dimension	Total governance disclosure	1,825	2,042	+11.9%
	Institutional construction	422	527	+24.9%
	Supervision & audit	160	194	+21.3%
	Risk management	422	460	+9.0%
	Compliance & internal control	179	193	+7.8%
	Shareholder & investor disclosure	115	108	-6.1%
Time Anchoring	Future-tense word share	1.75%	2.02%	+15.4%
	Past-tense word share	0.17%	0.25%	+47.1%
Rhetorical Strategies	Authoritative citation	3	15	+400%

Primary Dimension	Secondary Indicators	2024	2025	Change Rate
	Comparative rhetoric	55	83	+50.9%
	Data-backed statement	171	255	+49.1%
	Absolute assertion	75	84	+12.0%
Emotional Tone	Full-text sentiment standard deviation	Stable	Stable	No obvious change
	Board statement sentiment score	Near full score	Near full score	No obvious change
Digital Assets	Text numeric occurrence	1,819	2,110	+16.0%
	Customer consultation volume	21,269	51,021	+139.9%
External Endorsement & Narrative Logic	Total external endorsement	275	365	+32.7%
	Achievement-oriented term	118	168	+42.4%
	Problem-oriented term	70	90	+28.6%
	Achievement-problem ratio	1.69	1.87	+10.7%
	Critical term (defects & challenges)	31	25	-19.4%
Selective Avoidance	Financial restatement mention	0	0	Fully avoided
	Executive irregularity mention	0	0	Fully avoided
ESG-Financial Deviation	Total ESG social investment (10,000 RMB)	24,988.63	33,249.84	+33.1%
	Operating revenue (100 million RMB)	832.72	306.38	-63.2%
	Net profit attributable to parent (100 million RMB)	318.53	89.54	-71.9%
	Social investment-to-revenue ratio	0.031	0.106	+242.0%

Note: Frequency indicators are in times; monetary indicators include unit in labels.

This study conducts multi-dimensional textual coding for the 2024 and 2025 ESG reports of Wuliangye, and the statistical results of each coding dimension are shown in Table 1.

(1) Strategic Reinforcement of Chapter Structure and Governance Dimensions

Governance-related word frequency shows an overall increase, yet the growth is structurally uneven. Sub-dimensions most directly tied to financial information reliability, such as institutional construction and audit oversight, expand markedly, while the shareholder-relations dimension edges downward. The strategic character of this reinforcement extends beyond word counts to the reconfiguration of content. In 2025, a standalone chapter on compliance and internal control management is added, tax governance and data security governance undergo systematic upgrading, and the ESG–compensation linkage is explicitly quantified at 30 percent of the executive performance score. These adjustments are not a simple lengthening of the text; they represent a targeted response to market doubts about governance capability, signaling robust internal control and regulatory compliance in a manner consistent with the predictions of legitimacy theory.

(2) Structural Adjustment of Attribution Strategy

The proportion of internal attribution decreased from 2.60% to 2.43%, while external attribution fell from 0.16% to 0.12%. Although the absolute proportions of both types of terms declined, the decrease in internal attribution was smaller than that in external attribution, resulting in an increase in the ratio of internal to external attribution from 16.48 to 20.45, a rise of 24.1%. In contexts involving responsibility attribution, the firm tends to employ internal-subject terms such as "we," "internal," "self-review," and "improvement," rather than attributing problems to external factors like "macro" or "environmental changes." This discursive strategy of "actively assuming responsibility" represents a refined expression of legitimacy repair at the attributional level.

(3) The Future Turn of Temporal Anchoring

Overall, the report is more anchored in the temporal dimension, with past-oriented words growing at a faster rate, yet the core strategic shift still centers on the future dimension. The absolute frequency of future-oriented words such as "will," "future," and "plan" increases substantially, and forward-looking statements recur repeatedly toward the end of the report. This strategy of shifting toward future-oriented narration helps divert readers' attention from past financial mistakes to future sustainable development commitments, which is consistent with the prediction of attention diversion under Impression Management Theory.

(4) Systematic Upgrade of Rhetorical Strategies

The firm's post-restatement ESG reports witness comprehensive growth in four rhetorical strategies: authoritative citations, comparative narrations, absolute assertions and data-backed statements. Authority endorsement surges most sharply, with comparative and data rhetoric rising by roughly 50%, while absolutist expressions see milder growth. The synchronized reinforcement of these devices delivers definitive, data-rich and upbeat discourse, which serves to offset the trust damage brought by financial restatements via affirmative narrative framing.

(5) Narrative Packaging and Selective Information Presentation

Though the E, S and G sections retain consistently positive sentiment scores to curb market conjecture, two deliberate narrative adjustments emerge. First, the text strengthens the semantic linkage between compliance and risk, framing the financial restatement as a catalyst for long-term risk control and governance upgrades without explicitly mentioning the restatement itself. Second, while overall data density climbs 16% and customer consultation figures jump sharply, only favorable metrics like service satisfaction are disclosed, with links between surging inquiries and the restatement intentionally concealed. Such coordination of stable sentiment, semantic reconstruction and selective data presentation forms an integrated impression management strategy at both textual and numerical layers.

(6) Information Offsetting as a Dual Strategy

Wuliangye's 2025 ESG report entirely avoids references to its financial restatement, accounting errors and managerial misconduct. Though such disclosure is not mandatory, the concurrent issuance of corrective financial announcements and the ESG report creates stark informational contrast, forming an information offsetting mechanism: the firm conceals adverse financial events while intensively showcasing

ESG accomplishments to dilute negative market perceptions. This strategic logic also applies to resource allocation: amid plummeting revenue, the enterprise expands social investment, generating a clear divergence between slumping financial performance and rising sustainable input to shape a responsible corporate image. Nevertheless, two years of textual data fail to distinguish authentic sustainable values from deliberate impression management, requiring long-term evidence for conclusive judgment[6].

4 Supporting Evidence from Capital Market Documents

Cross-robustness tests on our textual coding results based on brokerage reports and accounting literature show that Guotai Haitong and China Post Securities' May 2026 research pointed out Wuliangye's RMB 30-billion-plus revenue restatement triggered widespread market doubts on its revenue recognition policies and internal control system, and a study in Friends of Accounting theoretically confirmed severe financial credibility loss and legitimacy repair incentives triggered by major restatements; against such trust impairment, the identified ESG narrative adjustments possess practical support, as brokerage data matches our calculation that Wuliangye's total social investment increased by 33.1% year-on-year with a 242% surge in social investment-revenue ratio amid poor 2025 performance, verifying the information offsetting strategy that intensive positive CSR narratives dilute negative financial shocks, and investor inquiries centering on internal control defects also highly correspond to the 24.9% and 21.3% year-on-year growth of institutional construction and audit supervision vocabularies in the 2025 ESG report, proving the firm's selective disclosure of targeted governance narratives while avoiding accounting-error-sensitive content; longitudinal comparison from 2022 to 2024 further eliminates the alternative hypothesis of routine annual textual iteration, since no concentrated inquiries on control failures or abnormal expansion of governance narratives existed in crisis-free years, which confirms the massive financial restatement as the core driver of Wuliangye's 2025 ESG disclosure restructuring.

5 Conclusion and Implications

(1) Research Findings

This paper adopts multi-dimensional textual coding of Wuliangye's 2024–2025 ESG reports and identifies five strategic ESG disclosure traits amid financial restatements. First, governance disclosure is strengthened specifically in institutional building, compliance, internal control and risk management to rebuild institutional legitimacy. Second, more authoritative, data-rich, achievement- and future-focused rhetoric shapes upbeat narratives to counteract adverse financial signals. Third, the report fully omits sensitive accounting issues while expanding external endorsements and reducing critical statements via selective information filtering. Fourth, social investment rises counter-cyclically amid slumping revenue and profits, and the investment-revenue ratio spikes to offset poor financial performance through comparative

storytelling. Fifth, environmental and social sections see minimal revisions, forming asymmetric disclosure across E, S and G dimensions. This unbalanced pattern excludes industrial or regulatory motives and verifies targeted reputation restoration for the restatement event. Overall, the five features prove that firms deploy ESG disclosure as a legitimacy and impression management instrument to mitigate the adverse influence of financial restatements on investors and stakeholders via governance reinforcement, positive framing, selective omission and information offsetting[7].

(2) Theoretical Contributions and Practical Implications

This paper delivers three contributions. First, integrating financial restatements and ESG disclosure within one analytical framework, this study explores their strategic interaction amid corporate crises and expands the application of legitimacy, impression-management and signaling theories in ESG research. Second, it constructs a reproducible multi-level coding system covering nine dimensions and thirty indicators for ESG textual analysis. Third, from the information-offsetting perspective, it unpacks micro-level image-repair mechanisms adopted by firms via ESG disclosure after negative events.

This work also yields practical implications. Regulators ought to watch for abnormal ESG disclosure changes triggered by financial restatements and establish linkage mechanisms between ESG and financial reports to identify potential greenwashing[8]. Investors should scrutinize inconsistencies between optimistic ESG narratives and worsening financial outcomes. For corporations, although strategic disclosure can mitigate short-term reputational losses, it degrades information quality and market trust in the long run; genuine ESG progress, instead of impression management, shall underpin ESG reporting.

(3) Research Limitations

This study has three main limitations: first, it adopts a single-case design focusing on Wuliangye, a resource-abundant leading baijiu firm subject to mandatory ESG disclosure, so its post-restatement ESG disclosure behaviors present unique sample characteristics, rendering the findings conditionally generalizable only to large listed firms with mandatory ESG regulations rather than SMEs or weakly regulated enterprises; additionally, the absence of counterfactual and control-group comparisons weakens causal inference regarding strategic disclosure mechanisms[9]. Second, the observed variations in internal and external attribution proportions are numerically modest due to the limited narrative adjustment space brought by financial restatements, and dictionary-driven textual coding inherently contains measurement noise[10], though this study mitigates such bias through manual sampling verification and high-Kappa double coding, which represents a standard calibration approach for narrative disclosure research[11]. Third, the evidence supporting the information offsetting mechanism remains indirect under the single-case framework, as the synchronized release of financial restatement announcements and ESG reports cannot fully confirm deliberate attention-shifting motivation[12]; without cross-case validation, this study regards information offsetting as a text-based plausible interpretation rather than a definitive causal conclusion, while ESG reputation repair effects are also highly contingent on corporate resource endowments and institutional environments[13].

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