Article

Research on S-Dimension ESG Disclosure of White Goods Enterprises from the Perspective of Social Responsibility Decoupling: Multi-case Evidence from Midea, Haier Smart Home and Gree Electric

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Abstract: Existing research on ESG misrepresentation has focused largely on environmental greenwashing, whereas false disclosure in the social (S) dimension, which covers employee rights, public welfare, philanthropy, and supply chain human rights, remains inadequately discussed. This form of false disclosure, termed S-dimension ESG washing, is highly concealed because it primarily relies on subjective textual narratives. Three leading A-share listed companies in the white goods industry—Midea Group, Haier Smart Home, and Gree Electric Appliances—are selected as a multi-case sample. A comparative framework is constructed to contrast textual statements in corporate reports with evidence of actual business operations. Five typical manifestations of S-dimension washing are identified, and a dual driving mechanism composed of external institutional pressures and internal governance deficiencies is systematically analyzed. The findings reveal that five types of disclosure decoupling—selective disclosure, vague language, publicity-driven philanthropy, labor information embellishment, and rhetorical supply chain commitments—are present to varying degrees. Under homogeneous external pressures, differences in internal governance patterns determine the specific manifestation of washing strategies; notably, the more concealed the cultural narrative underlying the washing, the less hard evidence can be captured publicly. Ultimately, this study provides a valuable reference for regulators to refine S-dimension disclosure rules, for third-party rating agencies to optimize evaluation indicators, and for listed companies to standardize social responsibility reporting practices. Furthermore, it highlights the urgent need for enhanced transparency mechanisms to mitigate symbolic corporate behaviors.

Keywords: esg disclosure; social responsibility; corporate governance; corporate disclosure; content analysis; greenwashing

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1. Introduction

The disclosure system for ESG and social responsibility reports in China has been continuously improved, and an increasing number of enterprises have taken the initiative to disclose their social responsibility practices. Existing research on ESG misrepresentation has mainly focused on environmental greenwashing and has paid insufficient attention to the social dimension [1]. This dimension encompasses employee well-being, public welfare and philanthropy, and supply chain workforce protection, and is conveyed primarily through textual narratives. Due to the scarcity of mandatory quantitative verification indicators, the social dimension is particularly susceptible to ESG washing—where disclosure texts diverge from actual operational practices. Unlike the environmental dimension, which can be verified through objective data such as pollutant emissions and energy consumption, social-dimension washing is more concealed and more likely to be overlooked by investors and rating agencies.

Three leading A-share private enterprises in the white goods industry are selected for multi-case analysis. Selecting multiple cases within the same industry helps control for external factors such as sector-specific policy frameworks, competitive dynamics, and institutional contexts. Multi-source cross-validation is conducted using corporate reports, official regulatory filings, and mainstream media coverage to identify patterns of misrepresentation and examine underlying drivers. Theoretically, this study distinguishes environmental greenwashing from social-dimension washing, extends comparative analysis within a single industry, and enriches localized empirical evidence on unsubstantiated social responsibility disclosure. Practically, it offers actionable insights for regulatory authorities, third-party assurance providers, and listed companies to detect and mitigate inaccurate social-dimension reporting.

2. Concept Definition, Theoretical Basis, and Analytical Logic

2.1. Definition of Core Concepts

The ESG framework comprises three dimensions: environmental (E), social (S), and governance (G). The S dimension encompasses a firm's engagement with its stakeholders—including employees, suppliers, and communities—and addresses areas such as workforce welfare, occupational health and safety, community investment and charitable activities, supply chain practices, and consumer protection. Outcomes in this dimension are predominantly communicated through qualitative narratives, with limited standardized quantitative metrics, which may enable selective or inflated presentation of performance [1, 2].

Environmental greenwashing denotes the practice of making misleading or unsubstantiated claims regarding environmental performance while failing to implement corresponding responsible actions. Analogously, S-dimension ESG washing reflects a divergence between disclosed social commitments and actual implementation—manifesting as selective emphasis, rhetorical embellishment, or incomplete reporting on topics such as workforce welfare, community investment, and supply chain standards [3]. This phenomenon aligns conceptually with patterns of responsibility decoupling observed across organizational structures, where operational responsibilities—and associated risks—are distributed across entities in ways that preserve an overall favorable external impression. While environmental greenwashing centers on ecological claims, S-dimension washing pertains specifically to stakeholder-related social commitments.

2.2. Theoretical Basis

Signaling theory posits that information asymmetry exists in capital markets and that listed companies have an incentive to convey to external investors the impression of being responsible business entities [4, 5]. When the cost of substantively fulfilling social responsibility is high, some firms rely solely on textual disclosure to project positive signals without implementing corresponding actions, thereby giving rise to S-dimension washing.

Stakeholder theory holds that business operations should balance the interests of multiple parties, including employees, suppliers, communities, and investors. As influential participants in capital markets, investors tend to prioritize the corporate image conveyed externally through the S dimension, whereas frontline personnel and workers across supply chains possess relatively limited capacity for oversight; their concerns are often expressed indirectly, such as through formal complaints or regulatory interventions [6]. Impression management theory indicates that firms engage in strategic narrative construction within sustainability reports, shaping a favorable social image without fully representing the actual extent of responsibility fulfillment. To sustain market reputation and secure policy support and favorable capital market outcomes, managers cultivate an external image of proactive social engagement through standardized language, selective emphasis on favorable topics, and omission of adverse or sensitive matters—constituting a key motivational mechanism underlying S-dimension washing.

2.3. Analytical Logic

The analytical logic of this paper is presented in Figure 1. External market and institutional pressures—highly homogeneous within the white goods industry—constitute the common external conditions for S-dimension washing. These pressures interact with firm-specific internal governance deficiencies, such as weak internal control and supervision and managerial impression management, culminating in S-dimension ESG washing [6].

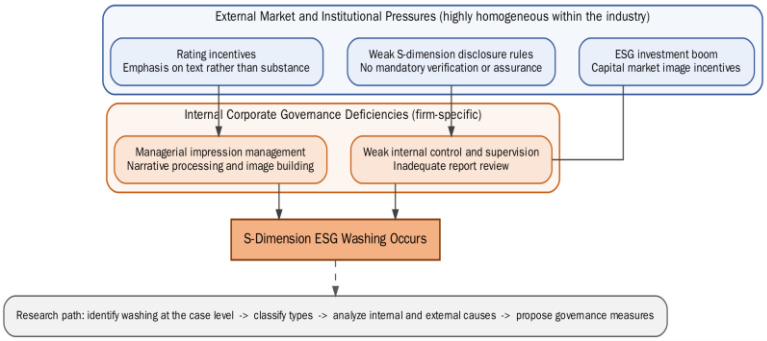


Figure 1. Analytical Logic of S-Dimension ESG Washing

3. Research Design

3.1. Research Methods

This paper employs literature analysis, content analysis, and multi-case comparative analysis. Literature analysis reviews existing research on social responsibility decoupling, ESG-related misrepresentation, and impression management to construct a theoretical framework [1]. Content analysis is used to systematically encode corporate ESG reports and identify discrepancies between stated commitments and observable practices. This method has been widely adopted in sustainability reporting research as a robust approach for detecting impression management. First, the analytical focus shifts from environmental misrepresentation to misrepresentation concerning the social dimension, and five actionable identification frameworks are synthesized. Second, same-industry control samples are incorporated to mitigate confounding effects arising from sectoral heterogeneity, thereby enabling more precise assessment of internal governance mechanisms on misrepresentation behavior. Third, targeted deep-dive investigations are conducted into official regulatory records and judicial proceedings involving key controlled subsidiaries, allowing detection of risk displacement—where compliance appearances at the parent level coexist with underlying noncompliance cascading to subordinate entities.

3.2. Case Selection and Overview

To control for industry-specific confounding variables, the white goods industry is selected as the research setting. It presents rich social-dimension issues and features a highly homogeneous internal and external regulatory environment, facilitating robust horizontal comparison. Midea Group (000333) is a leading comprehensive home appliance enterprise. It has published annual social responsibility reports since 2008 and transitioned to integrated ESG reporting beginning in 2021; 2025 marks its fifth consecutive ESG report [7]. As of the end of 2025, it employed 198,570 individuals, and its governance structure is characterized by systematic, professional managerial leadership.

Haier Smart Home (600690) is a globally operating home appliance enterprise [8]. It has issued annual social responsibility reports since 2009 and maintained continuous ESG disclosure through 2025. Its workforce totaled 134,995 employees at the end of 2025, reflecting a 10.0% increase from 122,733 in 2024. Its core management framework is the RenDanHeYi (one person, one order) model.

Gree Electric Appliances (000651) is a leading enterprise specializing in air conditioning systems [9]. It began publishing social responsibility reports in 2011 and has

progressively enhanced the scope and quality of its ESG disclosures in recent years. As of the end of 2025, it employed 71,966 individuals, and its governance structure reflects pronounced founder-led oversight.

3.3. Data Sources and Collection Procedures

All evidence is drawn from publicly available and reproducible secondary data covering the period from January 1, 2023 to December 31, 2025. Textual data are extracted from ESG reports and annual reports published on CNINFO and official corporate websites. Fact verification employs systematic cross-referencing: Qichacha serves as the primary platform for identifying organizational relationships, with searches conducted for parent entities and major affiliated organizations [10]. Administrative penalty records are validated via Credit China, while judicial case information is retrieved from China Judgments Online using official case identifiers. Supplementary public discourse analysis draws upon authoritative financial media outlets, including The Paper, the National Business Daily, and Jiemian News.

3.4. Content Analysis Coding Rules

This study employs qualitative content analysis to conduct comparative judgments between report statements (words) and actual external evidence (actions). The coding procedure is structured into three hierarchical levels: open coding, axial coding, and selective coding. The specific analytical framework is presented in Table 1.

Table 1. S-Dimension ESG Washing Coding Framework

Washing Type	Operational Coding Criteria	Evidence Source Requirements (Words–Actions Comparison)
Selective disclosure	Emphasizes low-risk positive S issues such as public welfare; deliberately avoids sensitive issues such as labor disputes and supply chain labor violations	Words: Reports present only positive narratives; Actions: Negative evidence exists in public judicial documents, administrative penalties, and authoritative media reports
Vague and formulaic language	Extensive use of templated, principled slogans, with a lack of detailed quantifiable indicators and implementation details	Words: Statements are filled with principles and codes; Actions: No verifiable implementation measures exist
Publicity-driven philanthropy	Emphasizes high-profile symbolic donations and public welfare projects; routine internal employee investment is weak	Words: Reports devote substantial space to symbolic public welfare; Actions: The proportion of public welfare investment is low, and the depth of labor issue disclosure is insufficient
Labor information embellishment	Highlights employee benefits and training systems while avoiding real labor conflicts such as overtime, resignation, and labor disputes	Words: Benefits and training systems are emphasized; Actions: Labor dispute cases and labor-related public opinion exposed by authoritative media exist
Rhetorical supply chain commitments	Claims a complete supply chain labor protection system but lacks substantive supplier audit records and rectification cases	Words: Supply chain labor codes are established in writing; Actions: No audit or rectification examples or quantitative results are disclosed

Source: Compiled by the authors based on the impression management theories of Solomon et al. [9], Diouf and Boiral [10], the CSR decoupling study of Bothello et al. [8], the related discussions of Zhang Xiumin et al. [2] and Huang Shizhong [1], and the content analysis coding rules applied to the ESG reports of the three firms in this study.

3.5. Analytical Strategy

The analytical process consists of two sequential steps. First, within-case analysis is conducted to decompose textual material and compare factual elements for each firm independently. Second, cross-case comparison is performed to identify shared greenwashing characteristics and variations in performance. Triangulation using multiple independent public data sources is applied to mitigate potential bias arising from reliance on a single source.

4. Research Process: Case Analysis, Washing Performance, and Cause Analysis

4.1. Within-Case Analysis

4.1.1. Midea Group: Systematic Vague Statements and Risk Shifting

Midea Group had 198,570 employees as of the end of 2025, including 152,499 manufacturing personnel and 23,926 R&D personnel, with a multi-tiered supply chain. Its 2025 ESG report includes comprehensive sections on employee development, occupational health, supply chain management, and rural public welfare, and outlines institutional initiatives such as safety investment, employee support mechanisms, and supplier guidelines. While the reporting framework is structurally complete, granular quantitative disclosures remain limited. From March to May 2025, the group emphasized adherence to statutory working hours and promoted standardized work-time practices, with leadership statements indicating that the majority of reported overtime was procedural rather than operational [2].

In September 2025, concerns were raised regarding working conditions at the Hefei Hualing base, including extended daily working hours and delays in final wage settlement upon departure; additional reports described expectations to continue work despite elevated body temperature and limited rest days per month. Local labor administration authorities initiated an official review. These observations contrasted with earlier communications emphasizing standardized work-time practices. Further analysis revealed that reported concerns were primarily associated with operational subsidiaries, whereas the parent company maintained consistent regulatory compliance records. Publicly accessible administrative records showed no penalties for the parent entity, while certain production subsidiaries recorded instances of employment-related administrative reviews between 2023 and 2025. One judicial decision involving employment classification was publicly accessible. The 2025 ESG report indicated an overall employee turnover rate of 35.7%, with a 20.7% turnover rate among employees aged 30 and below, which presents a notable divergence from the employer branding narrative. The lost-work injury rate per 200,000 working hours stood at 0.04, reflecting a 34% reduction from the prior year; however, the report did not reference the cluster of employment-related administrative reviews associated with the Wuhu subsidiary.

4.1.2. Haier Smart Home: Cultural Narrative Packaging and Related-Party Risks

Haier Smart Home centers on the RenDanHeYi management model, which positions employees as makers who create user value [11]. The annual report states that there are 130,000 makers worldwide, forming the core of its employee narrative. Over successive years, the 2023 and 2024 ESG reports both adopted RenDanHeYi: Empowering Makers for Inclusive Development as the thematic framework for the employee chapter, systematically addressing team diversity and inclusion, maker incentives, talent development, and employee well-being. The 2024 report indicates that domestic employees received an average of 68.55 hours of training, and the contract signing rate reached 100%. The 2025 ESG report summary identifies employee rights, equitable opportunity, professional development, and occupational health and safety as material topics. At the governance level, the board established an ESG committee, and a dedicated ESG executive committee was formed in 2025, with senior management overseeing implementation of ESG strategies.

At the level of verifiable evidence, the parent company and its two core manufacturing subsidiaries—Qingdao Haier Air Conditioning Electronics and Hefei Haier Refrigerators—showed no administrative penalty records on Credit China as of October 2026, reflecting group-level regulatory compliance. However, two areas warrant closer attention following deeper scrutiny. First, compliance concerns involving affiliated entities were not addressed in the ESG reporting. Specifically, Haier Consumer Finance Co., Ltd., an affiliated financial institution, received a fine of 2.05 million yuan from the Qingdao regulatory authority for marketing misrepresentation, collection irregularities, and improper use of credit funds—an issue falling within the scope of financial segment compliance oversight. The ESG report emphasizes positive narratives around workforce engagement and social contribution within the core business but omits this matter. Second, certain operational-level personnel-related matters have been documented across the same period; however, most supporting documentation remains non-public. Records indicate instances involving Qingdao Haier Air Conditioning Electronics and Hefei Haier Refrigerators between 2023 and 2025, which present a contrast with the report's emphasis on maker empowerment and professional growth. Compared to peer enterprises such as Midea, publicly accessible operational evidence remains comparatively limited, and externally visible concerns predominantly originate from the affiliated financial entity rather than manufacturing facilities.

4.1.3. Gree Electric Appliances: Symbolic Publicity and Strong Reputation Management

Gree Electric Appliances published its first ESG report in 2023, following 17 consecutive years of social responsibility reporting; its ESG disclosure system was established later than those of Midea and Haier [12]. The 2025 ESG report emphasizes high-visibility public initiatives in the social dimension, including poverty alleviation, education support, and rural revitalization, with a relatively large share of content dedicated to public welfare activities. In the employee-related dimension, the report outlines remuneration policies, skills development programs, and quality assurance frameworks, primarily at a general descriptive level. As of 2025, the company employed 71,966 individuals, of whom 49,684 were engaged in production roles (69.04%) and 15,947 in technical roles (22.16%), with full coverage under formal employment agreements.

At the verification level, no administrative penalty records were found for the parent company or Gree Electric Appliances (Hefei) Co., Ltd. on the official Credit China platform. Two observations warrant attention. First, publicly accessible judicial platforms indicate labor-related litigation involving the parent company; however, such matters received minimal elaboration in the 2025 report. Second, the company demonstrates a pronounced emphasis on reputation stewardship. In January 2025, authorities imposed administrative penalties on five individuals who disseminated false information targeting the company and its leadership via online channels; associated accounts were suspended. Complementing these actions, the firm undertook several visible public welfare initiatives in 2025—including a 1 million yuan contribution to rural revitalization efforts in Hengqin, provision of water purification systems to a primary school located at an altitude of 3,000 meters in Qinghai, and support for relief efforts following the Tai Po incident in Hong Kong, China—indicating a strategic orientation toward reinforcing its social image through prominent civic engagement rather than detailed operational disclosures related to workforce management [12].

At the data level, the overall employee turnover rate for 2025 stood at 11.27%, with total training hours amounting to 1.195 million, averaging 57.41 hours per employee [3]. While the training metrics are substantial, the report does not include information regarding labor-related litigation cases.

4.2. Cross-Case Comparison

4.2.1. Common Performance

The first pattern is selective disclosure, which highlights low-risk positive initiatives such as charitable contributions while omitting topics related to workforce management challenges and supply chain operational practices. The second is the use of vague and

standardized language, featuring broad, principle-based statements without concrete, measurable performance indicators [11]. The third reflects a communications-oriented approach to social investment, prioritizing high-visibility public welfare activities over sustained internal workforce development programs. The fourth involves presenting workforce-related information in a manner that emphasizes benefits frameworks and professional development systems, while omitting discussion of routine operational aspects such as working hour arrangements and personnel management practices. The fifth consists of declarative commitments regarding supply chain oversight, where formal policies are stated but implementation evidence—such as verification records or improvement documentation—is not provided.

Furthermore, all three firms demonstrate a structural approach to responsibility allocation, wherein operational responsibilities—including workforce and safety management—are assigned to affiliated production entities. While parent companies maintain formal compliance documentation, regulatory actions related to operational execution are concentrated at subsidiary levels [13]. ESG reporting does not include performance data from these operational units. This organizational separation supports the maintenance of a unified corporate image and aligns with observed patterns of strategic alignment between sustainability reporting and operational practice.

4.2.2. Differential Performance

Under highly homogeneous external pressures within the same industry, the information washing strategies of the three firms show clear differences. Midea leans toward institutional vagueness and selective disclosure, corresponding to the procedural governance style of the professional manager system. Haier Smart Home exhibits narrative washing, packaging workforce matters around corporate culture and leaning toward employment information embellishment, corresponding to a governance style characterized by strong cultural and managerial narratives. Gree Electric Appliances exhibits publicity-oriented washing, using high-profile public welfare projects as the core focus and leaning toward publicity-driven philanthropy, corresponding to a brand-publicity-oriented governance style led by a strong founder (As shown in Table 2).

Table 2. Comparison of Key S-Dimension Data Across the Three Firms (2025)

Indicator	Midea Group	Haier Smart Home	Gree Electric Appliances
Total employees (persons)	198,570	134,995	71,966
Overall employee turnover rate	35.7%	Not separately disclosed	11.27%
Lost-work injury rate per 200,000 working hours	0.04	Not separately disclosed	Not separately disclosed
Average training duration per employee	Not separately disclosed	Not separately disclosed	57.41 hours
Collective contract coverage rate	Not separately disclosed	Not separately disclosed	100%
Number of direct suppliers	4,696	Not disclosed	Not disclosed
Suppliers screened for conflict minerals	5,000+	Not disclosed	841

Source: 2025 annual reports and 2025 ESG reports of the three firms.

The hard evidence verifiable within the observation window across the three firms shows a clear gradient. Midea has six subsidiary employment-related legal cases, two rounds of workforce-related public discourse, one second-instance revision supported by a judgment, and one workplace safety compliance notice; Gree has only one parent company employment grievance clue; Haier has almost no public penalty records on the production side, and its only hard evidence comes from a related financial subsidiary. This gradient should be interpreted cautiously. The amount of verifiable production-side

official hard evidence within the window is clearly lower for Haier and Gree than for Midea. This phenomenon suggests that under a model in which the S-dimension is packaged through corporate cultural narratives or brand publicity, related frictions are less likely to form publicly retrievable judicial or administrative penalty records, which makes it more difficult for external researchers to capture words-actions decoupling clues (though this does not directly prove that the actual level of washing is higher). At the same time, another possibility exists: the firms themselves may simply have fewer such frictions. Therefore, the S-dimension performance of firms cannot be judged solely by the number of public negative events, nor can more concealed washing be inferred directly from fewer public hard evidence.

Note: Table 3 contains 13 core evidence items, including 7 from Midea, 3 from Haier, and 3 from Gree. Unpublished documents, withdrawn cases, and events outside the window are used only as research clues and background and are not separately coded. Source: Public channels such as China Judgments Online, Credit China, and authoritative financial media, compiled by the authors.

4.3. Cause Analysis of S-Dimension ESG Washing

4.3.1. External Causes: Highly Homogeneous External Pressures within the Industry

First, the rapid growth of ESG investment creates strong incentives for firms to enhance their capital market image, and social performance significantly influences institutional investors' assessments, prompting firms to pursue favorable evaluations through strategic textual presentation. Second, the current S-dimension disclosure framework exhibits structural limitations: no unified mandatory verification mechanism has been implemented in China, a substantial portion of disclosures remains voluntary, and assurance requirements are absent, collectively creating opportunities for misrepresentation. Third, third-party rating agencies tend to prioritize the presence of relevant statements in sustainability reports over rigorous validation of alignment between reported content and actual corporate practices, thereby encouraging an emphasis on rhetorical refinement rather than substantive improvement.

4.3.2. Internal Causes: Governance Differences Lead to Washing Strategy Divergence

First, managerial impression management manifests differently across firms: Midea's professional management team emphasizes systematic and institutional approaches; Haier adopts a narrative-driven approach rooted in its corporate culture; and Gree prioritizes brand-oriented public communication. Second, variations in internal governance structures and the rigor of internal control mechanisms lead to differing levels of scrutiny in ESG reporting processes, resulting in varying degrees of misalignment between disclosed content and actual operational practices. Drawing on stakeholder theory, image-related pressures exerted by influential stakeholders—such as investors—combined with limited oversight from less powerful groups—including frontline employees and supply chain workers—create conditions conducive to risk displacement. Third, divergent strategic orientations shape distinct interpretations of the social (S) dimension: for Midea, it functions primarily as a risk management module; for Haier, it is embedded as a cultural element; and for Gree, it serves a brand-related public relations function—thereby yielding differentiated approaches to sustainability communication [14].

4.3.3. Cause Integration

A unified policy, market, and regulatory environment across the white goods industry exerts consistent external pressure toward a positive S-dimension image. Variations in internal governance models, internal control rigor, and strategic positioning, however, result in divergent washing strategies among firms, yielding an industry landscape characterized by shared outward manifestations alongside distinct strategic approaches [10, 15].

4.4. Qualitative Research Reliability Statement

As a qualitative case study, this section serves as the robustness assessment. All case evidence is drawn exclusively from publicly accessible, reproducible secondary sources,

including CNINFO, China Judgments Online, Credit China, and authoritative financial media. Triangulation is applied to cross-verify evidence across multiple channels—ESG reports, annual reports, judicial documents, and media coverage. The 13 core evidence items specified in Table 3 underwent a standardized three-step verification: clue retrieval, official source validation, and media corroboration. Cases involving judicial rulings rely solely on original court documents; unpublished materials are used only as preliminary leads and never cited independently [1].

Table 3. Coding Results of Selected Core Evidence (January 2023–December 2025)

Firm	No.	Evidence Content (Source)	Corresponding Washing Type
Midea	M1	No administrative penalties on Credit China for the parent company, Wuhu Midea, and Guangdong Midea Kitchen Appliances (Credit China)	Compliance appearance / selective disclosure
Midea	M2	Six labor disputes at Wuhu Midea from 2023–2025; core: Deng Jian case, [2025] Wan 0291 Min Chu No. 3079 (China Judgments Online, with judgment)	Selective disclosure / labor information embellishment
Midea	M3	Luo Qi case, [2024] Yue 01 Min Zhong No. 828, revised on appeal, involving outsourced labor liability (China Judgments Online, with judgment)	Selective disclosure / labor information embellishment
Midea	M4	New base of Guangdong Midea Kitchen Appliances criticized for failing fire protection tests (Guangzhou Daily, Dec 25, 2023)	Selective disclosure
Midea	M5	Police mediating labor disputes at the site of the Wuhu Midea canteen fire (Anhui News Network, May 27, 2025)	Labor information embellishment
Midea	M6	Opposition to 996, mandatory 6:20 p.m. end-of-work, Fang Hongbo's statement that 95% of overtime is a formality (21st Century Business Herald; Jiemian News)	Labor information embellishment (positive narrative)
Midea	M7	14-hour workdays, being urged to work despite a 38.8°C fever, labor inspection intervention (The Paper, Sep 2025)	Labor information embellishment (words–actions decoupling)
Haier	H1	No administrative penalties on Credit China for the parent company, Qingdao Haier Air Conditioning Electronics, and Hefei Haier Refrigerators (Credit China)	Compliance appearance / selective disclosure
Haier	H2	Related company Haier Consumer Finance fined 2.05 million yuan for exaggerated marketing, improper collection, and misappropriation of credit funds (Jiemian News, Sep 2025)	Selective disclosure
Haier	H3	Labor dispute clues at Qingdao Haier Air Conditioning Electronics and Hefei Haier Refrigerators but documents not publicly available (China Judgments Online)	Labor information embellishment (concealed)
Gree	G1	No administrative penalties on Credit China for the parent company and Gree (Hefei) (Credit China)	Compliance appearance / selective disclosure
Gree	G2	First-instance labor dispute case of Wang Jinghui, [2024] Yue 0491 Min Chu No. 1308 (China Judgments Online, document not publicly available)	Selective disclosure / labor information embellishment

Gree	G3	Five individuals who spread rumors to discredit the firm and its executives subject to administrative penalties (National Business Daily, Jan 2025)	Reputation management orientation / publicity-driven philanthropy

Note: "Not disclosed" indicates that the corresponding indicator was not separately listed in the firm's 2025 report and does not mean that the related work was not carried out. Haier Smart Home published only a summary version of its 2025 ESG report, while its 2024 sustainability report disclosed an average training duration of 68.55 hours and a collective contract coverage rate of 100%.

5. Research Conclusions, Governance Implications, and Prospects

5.1. Main Research Conclusions

First, S-dimension ESG washing among Chinese listed companies manifests in five typical patterns: selective disclosure, vague and formulaic language, publicity-driven philanthropy, workforce-related information embellishment, and rhetorical supply chain commitments. The three leading firms all exhibit such practices to varying degrees. A concealed pathway is also identified: S-dimension compliance risks are shifted to subsidiaries and related parties, while the parent company maintains apparent compliance and the ESG report omits adverse realities associated with subordinate entities. This enables group firms to achieve social responsibility decoupling.

Second, under conditions of highly homogeneous external pressures within the same industry, variations in internal governance models directly shape the selection of S-dimension washing strategies. Systematic governance, cultural governance, and publicity-oriented governance correspond to distinct washing preferences, indicating that internal governance deficiencies constitute a core driver of S-dimension washing. The more deeply washing is embedded in cultural narratives and brand publicity, the less tangible evidence becomes available in public disclosures.

Third, S-dimension washing differs significantly from environmental greenwashing. Social dimension issues rely heavily on narrative content, are inherently more concealed, and their manifestations are closely linked to corporate governance styles. Regulatory approaches developed for environmental greenwashing cannot be directly applied; instead, a governance framework tailored to the distinctive features of the S dimension must be established. These conclusions are drawn from a sample of the white goods manufacturing industry, and generalizability to other sectors requires further empirical validation.

5.2. Multi-Level Governance Implications

At the third-party agency level, ESG rating agencies should assign greater weight to substantive fulfillment of social-dimension responsibilities and reduce reliance on textual completeness alone. Cross-verification of disclosed information should be strengthened by incorporating external public evidence—including administrative penalties, judicial rulings, and compliance records of subsidiaries—to identify discrepancies between reported narratives and observable conduct.

At the public opinion level, investors and the general public should systematically compare stated commitments with observable actions when evaluating ESG reports, using publicly accessible platforms such as Credit China and China Judgments Online for authenticity checks. Financial media should enhance social oversight, with particular attention to regulatory compliance across production-side subsidiaries.

5.3. Research Limitations and Prospects

The sample comprises leading private firms in the white goods industry and relies on theoretical sampling rather than random selection, limiting external validity; findings are not directly generalizable to state-owned enterprises or other sectors due to industry- and scale-specific constraints. Analyses draw exclusively on publicly available secondary data, precluding access to internal corporate documents—such as meeting records or

governance frameworks—which restricts direct inference of managerial intent. Coding was performed by a single analyst without inter-coder reliability assessment, introducing potential subjectivity into interpretive judgments. Cases resolved through mediation or withdrawn prior to formal adjudication are not published on China Judgments Online, resulting in incomplete coverage of relevant legal proceedings. Future work may employ large-sample text mining to develop quantitative S-dimension washing indicators, enabling rigorous empirical testing of how internal control mechanisms, third-party assurance, and governance structures influence S-dimension washing. Comparative extensions to state-owned enterprises and cross-industry contexts would further strengthen theoretical and practical insights.

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