



Identification and Market Effects of ESG Greenwashing: A Case Study of Shede Spirits

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Abstract. This study deconstructs Shede Spirits' ESG greenwashing—masking emissions, ignoring land disputes, and exploiting institutional compliance. Event study analysis reveals a significant "delayed punishment" market effect following negative exposure, validated via matched-sample testing. Findings yield targeted risk management and regulatory implications.

Keywords: ESG greenwashing; rating paradox; Shede Spirits; social responsibility; market effect

1 Introduction and Literature Review

Under the "Dual Carbon" strategy, the volume of corporate ESG disclosures has surged, yet "greenwashing" has evolved into a strategic tool to conceal negative performance (Huang et al., 2024). Confronted with such advanced camouflage, traditional large-sample quantitative methods struggle to identify it effectively; thus, research must pivot to contrasting a firm's "communicated claims" with its "organizational reality" (Bernini et al., 2024; Wang et al., 2025). This divergence between disclosure and reality manifests in evaluation systems as a "rating paradox" (Berg et al., 2022). Particularly in resource-dependent industries, management frequently exploits rating agencies' emphasis on the mere "existence of disclosure" to engage in "institutional arbitrage," thereby masking underlying risks (Huang et al., 2020). Regarding market feedback, although greenwashing ultimately triggers reputational impairment in the long run (Lee & Raschke, 2023), in high-premium sectors like baijiu (Chinese liquor), the impact of negative public opinion on stock prices is often accompanied by a distinct "information lag" (Brooks & Oikonomou, 2018).

Extant literature lacks an in-depth exploration of the dynamic mechanisms through which micro-level enterprises exploit institutional completeness to gloss over poor underlying performance. Consequently, this paper selects Shede Spirits—a firm exhibiting a stark divergence between domestic and international ESG ratings—as a case study. Shielded by the halo of high domestic ratings, the company harbors severe substantive contradictions: overcapacity (E), illegal land expropriation (S), and internal control vulnerabilities (G).

By contrasting its disclosures with factual realities across these three dimensions, this study deconstructs its greenwashing pathways enacted via "numbers games" and "impression management." Furthermore, utilizing an event study methodology, it analyzes the market reaction catalyzed by the exposure of its "land dilemma." The contributions of this paper are twofold: First, breaking through the limitations of large-sample empirical studies, it granularly delineates the micro-operational mechanisms of sophisticated greenwashing through a single-case approach. Second, expanding beyond the conventional lens confined to the environmental (E) dimension, it deeply analyzes community interest conflicts within the social (S) dimension, empirically verifying the capital market's "delayed punishment" effect regarding corporate social responsibility failures.

2 Multi-Dimensional Deconstruction of Shede Spirits' Greenwashing

2.1 The Rating Paradox and Case Background

As a typical resource-dependent baijiu enterprise, Shede Spirits exhibited a highly representative "rating paradox" in 2025: it received a top-tier "A" rating from the domestic mainstream agency Wind, yet a bottom-tier "CCC" from the authoritative international agency MSCI. This divergence unveils the underlying logic of its greenwashing: exploiting the domestic evaluation system's emphasis on the mere "existence of disclosure" to conduct impression management, whereas international agencies penetrated its rhetorical camouflage to capture substantive underlying risks. This section deconstructs how the firm utilizes institutional completeness to mask poor performance across the E, S, and G dimensions.

2.2 Environmental Dimension (E)

Masking Expansion and Numbers Games Within the environmental dimension, the firm primarily whitewashes its operations through "numbers games." Despite heavily touting "ecological brewing" and successfully meeting carbon intensity targets, its actual total greenhouse gas emissions surged by nearly 40% over three years due to the blind expansion of low-end production capacity. Furthermore, amidst a capacity utilization rate plummeting below 50%, the company maintained massive infrastructure expansions, packaging them as "strategic reserves." Whitewashing "financial redundancy and resource misallocation" as "green long-termism" constitutes a severe environmental misrepresentation.

2.3 Social Dimension (S)

"Selective Blindness" to Substantive Conflicts The social dimension is the epicenter of Shede Spirits' greenwashing. During its aggressive expansion and land expropriation, the firm adopted an illegal approach of "seizing land first, negotiating social security

later," severely violating the legitimate rights of displaced farmers and triggering intense community conflicts (the so-called "land dilemma"). However, these substantive social contradictions, which threaten the long-term livelihoods of local residents, were entirely filtered out of its ESG reports. Concurrently, an abnormally high turnover rate of 32.18% among its core out-of-province marketing teams was rhetorically polished as "workforce optimization," obscuring the reality of organizational decline.

2.4 Governance Dimension (G)

Concealing Flaws through Procedural Compliance At the governance level, substantive internal control risks are obscured by formalized compliance processes. The dissolution of the supervisory board weakened independent oversight; simultaneously, large-scale related-party transactions with its controlling shareholder (the Fosun Group) during a period of declining core business performance sparked market concerns regarding tunneling. Ironically, despite a 35.51% plunge in net profit attributable to shareholders in 2025, its ESG scores inversely increased due to the lengthy, structured disclosure of internal policies. This perfectly exemplifies the hallmark of advanced greenwashing: leveraging flawless procedural compliance and exhaustive metric coverage to conceal the critical 1% of underlying governance vulnerabilities that could prove fatal.

3 Empirical Analysis of Market Effects Following Greenwashing Exposure: An Event Study

3.1 Event Definition and Market Model Specification

This study designates October 16, 2025—the date the Economic Information Daily exposed the firm's "land dilemma"—as the event day ($t=0$). The event window is set at $[-10, 10]$, with an estimation window of $[-110, -11]$. We employ the classic market model to estimate expected returns:

$$R_t = \alpha + \beta R_{mt} + \varepsilon_t$$

Using OLS regression on the actual stock returns (R_t) and market benchmark returns (R_{mt}) within the estimation window, we calculate the daily Abnormal Return ($AR_t = R_t - ER_t$) and Cumulative Abnormal Return ($CAR_t = \sum AR_t$) for the event window.

3.2 Empirical Results: "Information Lag" and "Delayed Punishment"

Empirical findings reveal that prior to the event, driven by the impression management of high domestic ratings, Shede Spirits accumulated a significantly positive CAR, generating a substantial "green premium"(the specific daily abnormal returns and cumulative abnormal returns are detailed in Table 1). On $t=0$, the stock did not immediately plummet, reflecting a typical "information lag" inherent in high-premium industries—the market required time to digest the substantive impact of the underlying social conflicts. However, starting from $t=2$, the CAR trajectory collapsed abruptly,

plunging below the zero axis, as visually illustrated in Figure 1. This drastic reversal from an initial "green premium" to a subsequent "risk discount" represents the capital market's "delayed punishment" for the firm's concealment of corporate social responsibility failures.

Table 1. Abnormal Returns and Cumulative Abnormal Returns of Shede Spirits.

Event Day	Date	ER _t	AR _t	CAR _t
t=-10	2025/9/24	1.72%	-1.25%	-1.25%
t=-9	2025/9/25	0.52%	-1.76%	-3.01%
t=-8	2025/9/26	-2.06%	0.00%	-3.02%
t=-7	2025/9/29	1.98%	0.06%	-2.96%
t=-6	2025/9/30	0.18%	-2.16%	-5.12%
t=-5	2025/10/9	1.37%	-2.81%	-7.94%
t=-4	2025/10/10	-3.05%	2.26%	-5.68%
t=-3	2025/10/13	-1.18%	-0.13%	-5.81%
t=-2	2025/10/14	-2.89%	9.16%	3.35%
t=-1	2025/10/15	1.65%	-1.57%	1.78%
t=0	2025/10/16	-0.45%	3.04%	4.82%
t=1	2025/10/17	-3.41%	0.85%	5.67%
t=2	2025/10/20	0.85%	-0.24%	5.43%
t=3	2025/10/21	2.00%	-1.82%	3.61%
t=4	2025/10/22	-0.85%	1.36%	4.97%
t=5	2025/10/23	0.05%	-1.26%	3.71%
t=6	2025/10/24	1.96%	-6.55%	-2.83%
t=7	2025/10/27	1.41%	-1.05%	-3.89%
t=8	2025/10/28	-0.66%	0.35%	-3.54%
t=9	2025/10/29	1.87%	-1.40%	-4.94%
t=10	2025/10/30	-1.42%	0.72%	-4.22%

Note: Data derived and compiled from CNINFO.

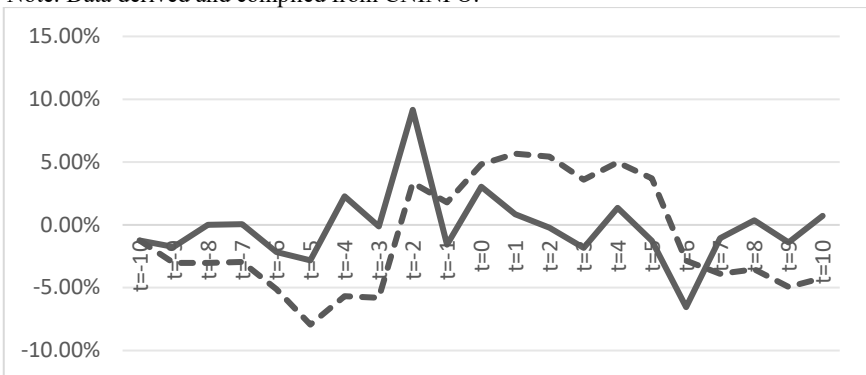


Fig. 1. AR and CAR of Shede Spirits During the Event Window

3.3 Robustness Check: Horizontal Matched-Sample Verification

To rule out the interference of systemic industry risks, we introduce "Swellfun"—a comparable peer in the same industry with similar market capitalization but stringent adherence to international ESG standards—as a control sample. Throughout the identical window, Swellfun's CAR remained stable and exhibited a mild upward trend, completely unaffected (see Figure 2 for Swellfun's specific event-window trends). The sharp divergence in the returns of the two firms post-event, as clearly compared in Figure 3, robustly proves that Shede Spirits' market capitalization shrinkage was not driven by macroeconomic sentiment, but rather constituted a firm-specific penalty precisely targeting its greenwashing behavior.

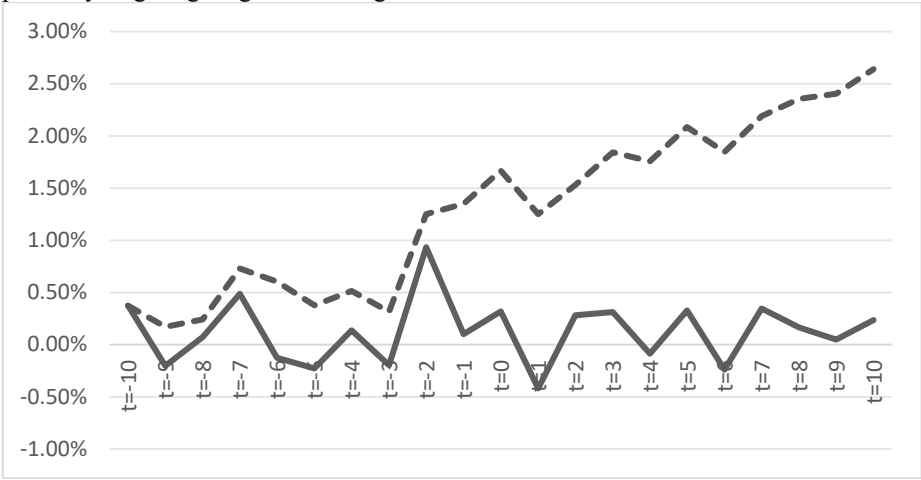


Fig. 2. AR and CAR of Swellfun During the Event Window

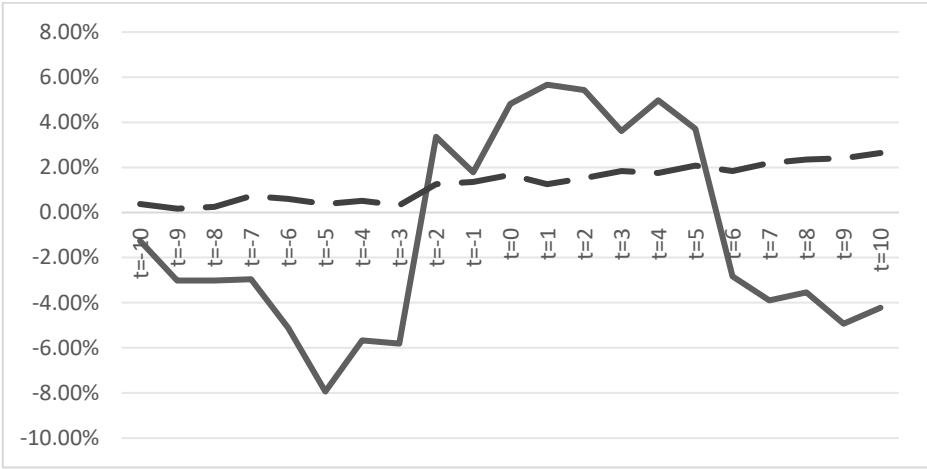


Fig. 3. CAR Trend Comparison: Shede Spirits vs. Swellfun

4 Conclusions and Implications

This study demonstrates that enterprises exploit institutional divergences to engage in "institutional arbitrage." By utilizing "numbers games" in environmental data, "selective blindness" in the social dimension, and "procedural compliance" in governance, firms can temporarily deceive the market to extract a "green premium." However, empirical results verify that once the rhetorical camouflage is pierced by negative public opinion, the market inflicts a severe "risk discount." These findings offer profound implications: First, regulators urgently need to integrate third-party "negative penetration" indicators (e.g., media and NGO reports) into the ESG evaluation frameworks of highly polluting and energy-intensive sectors, thereby breaking the reliance on self-reported narratives. Second, when confronted with a stark "rating paradox," investors must interpret it as a critical early-warning signal of potential manipulation in management disclosures.

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