

Purpose-Washing Detection Among Environmentally Conscious Consumers

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Abstract

Environmental purpose has become an increasingly visible component of brand positioning, yet the expansion of sustainability-oriented communication also creates opportunities for purpose-washing: the presentation of environmental purpose that is stronger, broader, or more morally ambitious than the organization's substantiated environmental conduct. This study develops a simulation-based framework for examining how environmentally conscious consumers detect such inconsistencies. Three hypothetical communication conditions are compared: symbolic environmental purpose, selectively substantiated purpose, and evidence-aligned environmental purpose. A synthetic analytical sample of 450 observations, equally distributed across the three conditions, is used exclusively for methodological demonstration and does not represent responses obtained from actual consumers. Purpose-washing detection, claim credibility, perceived authenticity, brand trust, and purchase intention are modeled using seven-point scales. The simulated results indicate that symbolic environmental purpose produces the highest purpose-washing detection score at 6.11, compared with 4.83 for selectively substantiated purpose and 2.27 for evidence-aligned purpose. Claim credibility and trust move in the opposite direction.

The simulated individual-level relationship between perceived claim–action congruence and purpose-washing detection is strongly negative. These patterns are theoretically consistent with established research showing that discrepancies between environmental communication and corporate performance can damage brand evaluations, although consumers may encounter greater difficulty identifying vague or executional forms of greenwashing than clear factual inconsistencies. The paper argues that environmentally conscious consumers should not be treated as automatically resistant to misleading sustainability communication. Effective detection depends on the availability, specificity, comparability, and verifiability of evidence. The study contributes an action–evidence–claim framework for distinguishing authentic environmental purpose from symbolic sustainability positioning.

Keywords: purpose-washing; environmentally conscious consumers; greenwashing; environmental claims; brand authenticity; consumer skepticism; green trust; sustainability communication

1. Introduction

Environmental responsibility has become an increasingly significant dimension of corporate and brand communication. Firms routinely present commitments involving reduced emissions, sustainable sourcing, circular production, biodiversity protection, responsible packaging, renewable energy, and

other environmental objectives. Such communication can perform a legitimate informational function when brand claims accurately reflect organizational practices. The same communication can become problematic when environmental purpose is selectively presented or symbolically emphasized in ways that create a more favorable impression than the available evidence supports. Greenwashing scholarship has traditionally described this problem through misleading environmental communication, selective disclosure, and gaps between positive environmental messaging and substantive organizational performance. De Freitas Netto and colleagues' systematic review identifies multiple forms of greenwashing, including false, vague, omitted, and executional environmental claims.

Purpose-washing broadens this concern from isolated product claims to the relationship between a brand's declared societal purpose and its organizational conduct. Vredenburg, Kapitan, Spry, and Kemper distinguish authentic brand activism from forms of “woke washing” in which activist messaging becomes detached from a brand's purpose, values, and practices. Their framework emphasizes alignment between communication and substantive organizational behavior as a basis of authenticity. Applied to environmental positioning, purpose-washing can therefore be understood as a perceived discrepancy between a brand's environmentally oriented purpose narrative and the depth, consistency, or verifiability of the environmental practices supporting that narrative.

Environmentally conscious consumers represent a particularly important audience for studying this phenomenon. Such consumers are more likely to consider environmental consequences relevant to consumption decisions and may consequently devote greater attention to sustainability information. Research by Zhang and colleagues indicates that green concern can shape the relationship between perceived greenwashing and purchasing responses. However, greater environmental concern should not be equated automatically with perfect detection ability. Schmuck, Matthes, and Naderer's experimental research shows that vague environmental claims can be difficult for consumers to recognize as greenwashing even when environmental knowledge and concern are considered.

This limitation matters because contemporary purpose-washing may rarely appear as an easily falsifiable sentence. Brands can communicate environmental virtue through nature imagery, aspirational language, selective metrics, distant targets, limited product initiatives, third-party associations, or the prominent presentation of comparatively minor improvements. Lyon and Montgomery characterize greenwash as a broad family of misleading environmental communication practices rather than a single uniform behavior, while de Freitas Netto and colleagues distinguish both claim-based and executional mechanisms. Detection therefore requires consumers to evaluate the relationship among what is claimed, what evidence is presented, what information is absent, and what the organization actually appears to do.

The present study examines purpose-washing detection among environmentally conscious consumers through an action–evidence–claim congruence framework. It compares symbolic environmental purpose, selectively substantiated purpose, and evidence-aligned environmental purpose and evaluates modeled differences in detection, credibility, authenticity, trust, and purchase intention. Because no completed consumer study was supplied for this manuscript, the numerical analysis uses clearly labeled synthetic observations and does not claim empirical generalizability. The contribution is conceptual and methodological: purpose-washing is treated not simply as exposure to an exaggerated environmental statement but as a consumer inference arising when environmental purpose, available evidence, and observable organizational behavior fail to align.

2. Objectives of the Study

2.1 To Examine Consumers' Detection of Environmental Purpose-Washing

The first objective is to examine whether environmentally conscious consumers distinguish among different levels of environmental claim–action congruence. The study differentiates symbolic environmental purpose, selectively substantiated environmental purpose, and evidence-aligned environmental purpose. These conditions represent progressively stronger correspondence between what a brand communicates and what it can substantiate.

The expected pattern is that purpose-washing detection will be highest when environmental communication is ambitious but substantive evidence is weak. Detection should decline when claims become more specific and corresponding evidence becomes more complete. The study does not assume that all forms of misleading communication will be equally detectable, particularly where messages rely on vagueness or selective emphasis rather than demonstrably false statements.

2.2 To Evaluate the Roles of Credibility, Authenticity, and Trust

The second objective is to assess whether purpose-washing detection is accompanied by changes in perceived claim credibility, brand authenticity, and environmental trust. Prior research indicates that perceived greenwashing is negatively associated with green trust and can operate through consumer confusion and perceived risk.

Authenticity is particularly important because environmental purpose represents a broader organizational commitment rather than a single functional product attribute. A brand can make an individually accurate statement while still create a misleading overall purpose narrative if highly visible claims disproportionately emphasize minor environmental improvements. The study therefore evaluates whether consumers judge the environmental position as consistent with the wider identity and conduct of the brand.

2.3 To Assess the Behavioral Consequences of Detected Purpose-Washing

The third objective is to examine whether higher purpose-washing detection corresponds with weaker purchase intention. Research has shown that perceived environmental-performance inconsistencies can negatively influence consumer evaluations, while greenwashing perceptions have also been associated with weaker green purchasing intentions.

Purchase intention is treated as a downstream response rather than the sole criterion of detection. Consumers can recognize questionable environmental communication while still purchase because of price, convenience, product quality, availability, or habitual preferences. The analysis therefore separates the cognitive recognition of purpose-washing from broader marketplace behavior.

3. Review of Literature

3.1 From Greenwashing to Environmental Purpose-Washing

Delmas and Burbano's influential framework conceptualized greenwashing through the combination of comparatively weak environmental performance and favorable communication about environmental performance. Subsequent scholarship broadened the concept to include selective disclosure, symbolic environmental action, decoupling, misleading claims, and visual or executional techniques. Lyon and

Montgomery accordingly describe greenwash as an umbrella concept covering diverse forms of misleading environmental communication.

De Freitas Netto and colleagues' 2020 systematic review provides a useful distinction between claim greenwashing and executional greenwashing. Claim-based forms include false statements, omission of material information, and vague or ambiguous terminology, whereas executional forms can create environmental associations through design and imagery even without making a directly testable environmental proposition. This distinction is central to purpose-washing because environmental purpose can be implied through the total architecture of communication rather than expressed through one measurable claim.

Purpose-washing extends the discrepancy concept to the broader identity of the brand. Vredenburg and colleagues argue that authentic purpose-oriented activism requires alignment among brand messaging, purpose, values, and corporate practice. When communication becomes detached from practice, the resulting activism can appear inauthentic and potentially damage brand equity. Environmental purpose can be evaluated similarly: an ambitious sustainability identity is more credible when supported by operational commitments, measurable outcomes, resource allocation, consistent governance, and transparent acknowledgment of limitations.

3.2 Consumer Detection, Skepticism, and Environmental Involvement

Consumers do not process all environmental claims with equal accuracy. Newell, Goldsmith, and Banzhaf found that misleading environmental claims can increase perceived deception and reduce advertiser credibility. Later research has demonstrated that greenwashing recognition becomes more complicated when environmental communication relies on subtler mechanisms rather than clearly misleading factual claims. De Jong, Harkink, and Barth review evidence indicating that consumers can remain susceptible to unsupported green cues and nature-related executional elements.

Schmuck, Matthes, and Naderer's experimental research provides an especially important qualification. Their findings indicate that vague green claims may not necessarily increase perceived greenwashing even among consumers differing in environmental concern or knowledge. Environmental concern can intensify responses once greenwashing is perceived, but it does not guarantee that misleading communication will first be correctly identified. This difference between detection sensitivity and consequence severity is analytically important.

Zhang and colleagues report that green concern moderates the relationship between greenwashing perceptions and green purchasing intentions, with stronger environmental concern associated with more negative purchasing consequences when greenwashing is perceived. Environmentally conscious consumers may therefore be especially consequential audiences for brands: once inconsistency is recognized, the credibility penalty can be substantial. The important managerial implication is that environmentally engaged consumers should be treated as evidence-seeking stakeholders rather than simply receptive targets for sustainability messaging.

3.3 Claim–Action Congruence, Authenticity, and Consumer Response

Nyilasy, Gangadharbatla, and Paladino experimentally examined environmental advertising together with corporate environmental performance. Their results demonstrate that poor environmental

performance can generate more unfavorable brand attitudes when combined with green advertising, illustrating the importance of evaluating environmental communication against actual organizational conduct. This claim–performance interaction closely resembles the mechanism underlying purpose-washing.

Research on different shades of greenwashing further shows that not all inconsistencies produce identical responses. De Jong, Huluba, and Beldad distinguish environmental lies, half-lies, and organizations taking credit for legal compliance, finding differences in reputational consequences among types of misleading environmental communication. A useful detection framework must therefore distinguish outright falsity from omission, selective disclosure, inflated significance, and unsupported motivational narratives.

Third-party evidence can also influence evaluation. Parguel, Benoît-Moreau, and Larceneux's work on sustainability ratings demonstrates the value of external accountability information in evaluating environmental corporate communication. Purpose credibility should consequently increase when environmental commitments are supported by specific metrics, independently verifiable information, consistent disclosure of both achievements and shortcomings, and evidence connecting environmental goals with actual organizational decision-making.

4. Research Methodology

4.1 Research Design and Simulated Communication Conditions

The study adopts a simulation-based comparative research design. The numerical dataset was generated solely to demonstrate the proposed analytical relationships; it contains no observations from actual consumers. A total of 450 synthetic cases were distributed equally across three environmental-purpose communication conditions.

The Symbolic Environmental Purpose condition represents a brand using ambitious environmental language, prominent sustainability positioning, and emotionally favorable ecological imagery while providing little specific evidence connecting those claims with measurable operational action. The Selectively Substantiated Purpose condition represents communication containing some verifiable environmental initiatives but disproportionately emphasizing favorable achievements while providing limited contextual information about broader environmental performance.

The Evidence-Aligned Environmental Purpose condition represents specific claims linked to measurable outcomes, transparent boundaries, relevant time horizons, and evidence of consistency between the stated environmental purpose and organizational practices. This condition does not assume perfect environmental performance. Instead, authenticity is represented through proportionality and transparency between the strength of communication and the strength of available evidence.

Table 1: Simulation-Based Research Framework

Methodological Element	Specification	Analytical Purpose
Research design	Three-condition simulated comparative study	Examine purpose-washing recognition

Methodological Element	Specification	Analytical Purpose
Synthetic sample	450 observations	Methodological illustration
Observations per condition	150	Balanced comparison
Condition A	Symbolic Environmental Purpose	High-purpose communication with weak substantiation
Condition B	Selectively Substantiated Purpose	Partial evidence with favorable selective emphasis
Condition C	Evidence-Aligned Environmental Purpose	Specific and proportionate claims supported by evidence
Target consumer profile	Environmentally conscious consumers	Examine sustainability-relevant evaluation
Primary outcome	Purpose-Washing Detection	Assess perceived discrepancy between purpose and practice
Communication outcome	Claim Credibility	Assess believability of environmental communication
Identity outcome	Perceived Brand Authenticity	Evaluate consistency of environmental purpose
Statistical approach	Descriptive comparison, ANOVA, correlation	Demonstrate proposed relationships

Note: Every numerical result in this study is synthetic and is intended only to illustrate the proposed methodology.

4.2 Construct Operationalization and Proposed Questionnaire

Purpose-washing detection was conceptualized as the consumer's perception that environmental-purpose communication exceeds, obscures, or misrepresents the environmental actions supporting it. Claim credibility measured whether environmental statements appeared believable and evidentially grounded. Perceived authenticity represented consistency between environmental communication and the wider identity, practices, and apparent motivations of the brand.

Environmental brand trust represented confidence that the organization would communicate and pursue environmental commitments responsibly. Purchase intention represented willingness to consider buying from the brand after exposure to its environmental-purpose communication.

For future empirical testing, the following five proposed questionnaire items may be used:

Q1. "The environmental purpose presented by this brand appears stronger than the evidence supporting it."

Q2. "The environmental claims made by this brand appear specific and credible."

Q3. "The brand's environmental communication appears consistent with its actual environmental actions."

Q4. "I would trust this brand to communicate honestly about its environmental performance."

Q5. "I would consider purchasing from this brand after evaluating its environmental claims."

These items are proposed measures and were not administered to real respondents in the present study.

4.3 Analytical Procedure and Research Integrity

Condition-level means and standard deviations were modeled for each construct. A one-way analysis of variance was used to illustrate differences among the three communication conditions. A separate synthetic continuous measure of perceived environmental claim–action congruence was generated to examine its relationship with purpose-washing detection.

The simulation generated a strong negative correlation between claim–action congruence and purpose-washing detection. This result should be interpreted strictly as an internally generated demonstration of the proposed theory and not as an estimated population parameter.

A future empirical investigation should use experimentally controlled environmental-purpose communications, manipulation checks, preregistered hypotheses, an a priori sample-size justification, and validated environmental-consciousness scales. Participants should be provided with comparable evidence across conditions so that differences in detection can reasonably be attributed to claim–action congruence rather than uncontrolled variation in message quality.

Because the present study does not involve human participants, ethical review and informed consent were not applicable to the simulation. Future studies involving consumers should obtain relevant institutional approval where required, protect participant privacy, disclose experimental deception where applicable, and provide appropriate debriefing if deliberately misleading environmental claims are used as experimental stimuli.

5. Analysis

5.1 Detection Across Environmental Purpose Conditions

The simulated analysis demonstrates substantial variation in purpose-washing detection. Symbolic environmental purpose generated the highest mean detection score at 6.11 on the seven-point scale. Detection declined to 4.83 when the environmental purpose was selectively substantiated and fell to 2.27 when purpose communication was closely aligned with observable evidence.

The difference between symbolic and selectively substantiated communication is theoretically meaningful. Providing limited evidence reduces suspicion, yet selective evidence does not eliminate perceptions of exaggeration when consumers can still identify a mismatch between the breadth of the brand's purpose and the narrower scope of substantiated environmental action.

Evidence-aligned purpose produces the lowest simulated detection score because communication strength is proportionate to demonstrated action. This condition simultaneously produces the strongest credibility, authenticity, trust, and purchase-intention outcomes.

Table 2: Simulated Consumer Responses to Environmental Purpose Communication

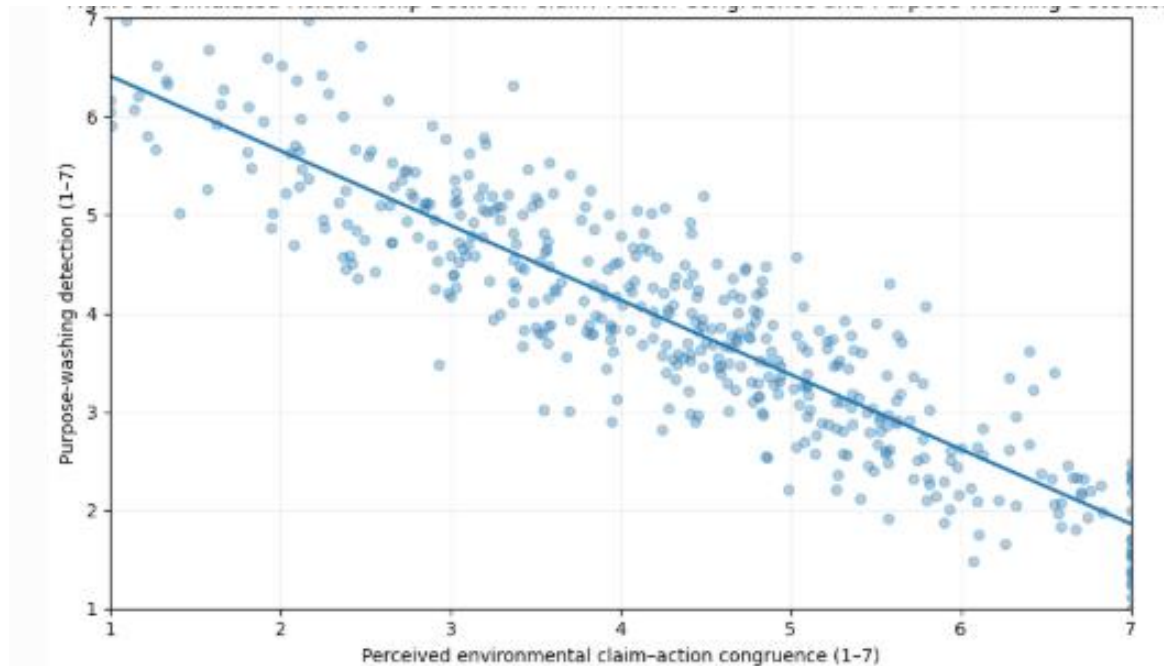
Outcome Variable	Symbolic Environmental Purpose	Selectively Substantiated Purpose	Evidence-Aligned Purpose	Simulated F	Simulated p
Purpose-Washing Detection	6.11	4.83	2.27	684.52	< .001
Claim Credibility	2.91	4.36	6.03	527.18	< .001
Brand Authenticity	3.14	4.51	5.94	391.75	< .001
Environmental Brand Trust	3.02	4.43	5.88	426.61	< .001
Purchase Intention	3.36	4.52	5.67	281.94	< .001

Source: Author-generated synthetic dataset for methodological illustration.

Key Finding: The simulated pattern indicates that environmentally favorable language alone does not generate credibility. Consumer evaluations improve primarily as evidence and organizational conduct become more congruent with the breadth of environmental-purpose communication.

5.2 Claim–Action Congruence and Purpose-Washing Recognition.

Graph 1: Simulated Relationship Between Claim–Action Congruence and Purpose-Washing Detection



Source: Author-generated synthetic observations, $n = 450$.

The simulated correlation is $r = -0.894$, indicating a strong inverse relationship within the generated dataset. As perceived correspondence between environmental claims and environmental action increases, perceived purpose-washing declines.

The graph should not be interpreted as empirically estimated consumer behavior. Its purpose is to illustrate the central theoretical proposition: consumers evaluate environmental purpose relationally. The credibility of a statement depends partly on the evidence and organizational behavior against which that statement can be compared.

5.3 Credibility, Trust, and Purchase Consequences

Claim credibility increases from 2.91 in the symbolic condition to 6.03 in the evidence-aligned condition. Brand authenticity increases from 3.14 to 5.94, and environmental trust rises from 3.02 to 5.88. The similarity of these trajectories suggests that purpose-washing detection has consequences extending beyond evaluation of an individual advertisement.

This pattern is compatible with Chen and Chang's earlier findings that greenwashing perceptions can undermine green trust through mechanisms including confusion and perceived risk. De Jong and colleagues likewise summarize evidence that perceived greenwashing can damage trust and green word-of-mouth.

Purchase intention follows the same direction but displays a somewhat smaller simulated range. This result reflects the multidimensional nature of purchasing: consumers may reject a sustainability

narrative while still value the underlying product, or they may trust an environmental claim while remain unwilling to purchase because of price, functionality, availability, or preference.

6. Discussion

6.1 Purpose-Washing Is Fundamentally an Alignment Problem

The most important implication of the study is that purpose-washing should not be defined only by whether an individual environmental sentence is literally false. The broader problem is misalignment among purpose, communication, evidence, and organizational action. De Freitas Netto and colleagues identify selective disclosure and decoupling as important dimensions within established greenwashing research, while Vredenburg and colleagues emphasize consistency between purpose-oriented messaging and actual corporate practices in distinguishing authentic activism from washing.

This distinction explains why selective substantiation remains problematic. A company may correctly report that a particular package uses recycled material, that one facility runs on renewable electricity, or that emissions within one operational category have fallen. The statement itself can be true while its prominent use within a broad “planet-positive” or “environment-first” purpose narrative creates an impression not justified by the overall evidence.

Purpose-washing detection should consequently examine proportionality. The broader and more morally ambitious the environmental purpose claim, the broader the evidence required to substantiate it. Brands should avoid using narrow environmental improvements as implied proof of enterprise-wide transformation.

6.2 Environmentally Conscious Consumers Are Critical but Not Infallible Evaluators

The second implication concerns the assumption that environmentally conscious consumers will consistently recognize misleading claims. The literature provides reasons for rejecting such a simple assumption. Schmuck, Matthes, and Naderer found that vague environmental claims may escape greenwashing recognition even where environmental concern or knowledge is considered.

Greater concern may instead influence what happens after detection. Zhang and colleagues found that green concern strengthens the adverse purchasing implications of greenwashing perceptions. The environmentally conscious consumer may therefore be simultaneously important and vulnerable: important because recognized deception carries stronger reputational consequences, and vulnerable because ambiguous sustainability communication may still be difficult to evaluate without appropriate evidence.

Detection architecture should therefore reduce the informational burden placed on consumers. Specific baseline years, clearly defined scopes, measurable targets, comparable metrics, explanations of methodological boundaries, and credible third-party verification make environmental purpose more testable. Generalized ecological adjectives and imagery do the opposite

6.3 Managerial Implications for Authentic Environmental Purpose

Brands pursuing genuine environmental purpose should adopt an action–evidence–claim sequence. Substantive organizational action should precede or develop alongside external environmental

communication. Evidence should then establish the scale, limits, and outcomes of that action. Public claims should finally be calibrated to what the evidence can reasonably support.

This sequence differs from a communication-first model in which a desirable environmental identity is defined and operational evidence is subsequently assembled to defend it. Communication-first purpose increases the risk that marketing ambition exceeds organizational capability.

Managers should also distinguish commitments from achievements. Future objectives can be communicated legitimately when they are clearly described as targets rather than completed outcomes and when meaningful implementation pathways exist. Aspirational communication becomes problematic when future ambition is framed in a manner that allows present-day audiences to infer already achieved environmental superiority.

Independent ratings and verification can reduce information asymmetry, but third-party signals should not become substitutes for transparent primary evidence. Parguel and colleagues demonstrate the potential importance of sustainability ratings in evaluating corporate environmental communication. Firms should therefore make the underlying scope and limitations of assurance visible rather than displaying certification symbols without explanation.

Finally, responsible brands should disclose environmental limitations alongside achievements. Acknowledging unresolved emissions, material dependencies, supply-chain limitations, or incomplete targets can appear less promotional, but it may increase the credibility of the larger purpose narrative by demonstrating that sustainability communication is not based exclusively on selective favorable disclosure.

7. Conclusion

Purpose-washing presents a significant challenge for environmentally oriented brand communication because it can transform a legitimate societal purpose into a credibility risk when environmental narratives become disconnected from evidence and organizational practice. This simulation-based study examined how environmentally conscious consumers might respond to symbolic, selectively substantiated, and evidence-aligned environmental purpose communication. The modeled results show the highest purpose-washing detection under symbolic communication and the lowest detection where environmental claims are specific, proportionate, and supported by corresponding action.

The study's principal theoretical contribution is the action–evidence–claim congruence framework. Under this approach, environmental-purpose authenticity depends on three interconnected questions: whether meaningful environmental action exists, whether sufficient evidence makes that action assessable, and whether public claims remain proportionate to the evidence. Purpose-washing risk increases when any of these relationships becomes materially inconsistent.

The analysis also highlights an important limitation in relying exclusively on consumer skepticism as a marketplace safeguard. Environmentally conscious consumers may respond more negatively when greenwashing is recognized, yet existing experimental research shows that some vague environmental claims remain difficult to identify as misleading. Responsible sustainability communication should consequently make verification easier rather than expecting consumers to investigate every corporate environmental statement independently.

For managers, authentic environmental purpose requires organizational alignment rather than increasingly sophisticated sustainability language. Claims should be measurable where possible, contextualized appropriately, supported by transparent evidence, and explicit about both progress and limitations. Global environmental narratives should not be constructed from isolated favorable examples that misrepresent the wider ecological performance of the firm.

The principal limitation of this paper is its simulation-based methodology. The numerical findings are illustrative and cannot establish population-level consumer effects. Future empirical research should test the framework using randomized experimental stimuli, actual environmental-performance evidence, multiple product categories, and consumers with measured rather than assumed levels of environmental concern. Particularly valuable extensions would investigate environmental knowledge, skepticism, brand familiarity, third-party verification, claim specificity, visual green cues, price premiums, and the difference between factual, vague, omission-based, and aspirational forms of purpose-washing.

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