

From Greenwashing to Green Trust: A Conceptual Review of Consumer Evaluation of Sustainability Claims

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Abstract

Sustainability claims are now an everyday feature of brand messaging. But not every claim sounds true, and faced with a proliferation of such claims, consumers have become increasingly skeptical that many exaggerate, distort, or even fabricate a company's actual environmental performance. This conceptual paper integrates the greenwashing and green trust literatures to develop an integrated explanation of how consumers process an initial exposure to a sustainability claim, through evaluations of perceived greenwashing, green confusion, and green perceived risk, to an eventual judgment of green trust or green distrust. Drawing on signaling theory, information asymmetry, and attribution theory, we argue that green trust is not the simple opposite of greenwashing but a distinct, effortful evaluative outcome shaped by claim specificity, third-party verification, firm environmental track record, and individual consumer skepticism. We develop a conceptual framework that positions perceived greenwashing as the central mediating construct between corporate communication tactics and downstream consumer trust, and we outline boundary conditions under which credible claims fail to generate trust and questionable claims nonetheless succeed. Implications for sustainability marketing practice, ecolabel design, and regulatory policy, together with an agenda for future empirical research, are discussed.

Keywords: greenwashing, green trust, green skepticism, sustainability claims, green marketing, signaling theory, consumer evaluation

1. Introduction

Environmental claims can now be found on packaging, in advertising, on corporate websites, and on social media to a degree unimaginable 30 years ago. Words like “eco-friendly,” “carbon neutral,” “sustainably sourced,” and “biodegradable” appear across product categories, from fast fashion to fast-moving consumer goods to financial services. The commercial rationale for this growth is simple: a large and growing proportion of consumers report that they are willing to pay more for products that are seen to be environmentally responsible, and companies have responded by placing sustainability at the forefront of their positioning (Chen, 2010; Ottman, 2011).

This growth in green communication has arguably made the public less trusting of environmental messaging generally. Reports of selective disclosure and inflated claims (Lyon & Maxwell, 2011) have documented the phenomenon of greenwashing, a practice that creates the impression that a firm's environmental performance is more favourable than it actually is, or that a firm's product is more environmentally beneficial than it actually is (Delmas & Burbano, 2011). For firms that behave honestly,

this phenomenon produces a credibility externality: consumers who have previously been deceived by a firm's environmental messaging generalise their distrust to other firms within the same category of messaging, and therefore penalise all firms, including genuinely sustainable ones, alongside greenwashing firms (Chen & Chang, 2013; Nyilasy, Gangadharbatla, & Paladino, 2014). Here, the construct of green trust has become an important outcome variable in green consumer behaviour research. Green trust is the willingness of a consumer to rely on a product, service, or brand based on the perception of its environmental performance and credibility (Chen, 2010). However, even though green trust as a desirable end-state following credible communication is intuitively appealing, the literature has not fully addressed how consumers move from encountering a sustainability claim to forming a trust judgment, or how perceptions of greenwashing shape this process. Much of the empirical literature treats greenwashing and green trust as two separate research streams — one focused on corporate motives and disclosure strategies, the other on consumer psychology and brand equity — with relatively few efforts to integrate them into a single evaluative process model.

This paper addresses this gap through a conceptual review. Instead of presenting new primary data, we draw on the literatures of greenwashing and green trust, and on the theoretical traditions underlying them — signaling theory (Spence, 1973), information asymmetry (Akerlof, 1970), and attribution theory (Kelley, 1967) — to propose an integrated framework of consumer evaluation of sustainability claims. Perceived greenwashing is treated here not as a peripheral nuisance variable, but as the central mediating construct that determines whether a sustainability claim ultimately builds or destroys green trust. The rest of this paper is organised as follows. Section 2 introduces the core constructs and reviews their theoretical underpinnings. Section 3 traces the consumer evaluation process from claim exposure to trust judgment. Section 4 presents an integrative conceptual framework. Section 5 discusses the conceptual and empirical implications of the framework, Section 6 draws out managerial and policy implications, Section 7 addresses limitations and future research directions, and Section 8 concludes.

2. Conceptual Underpinnings

2.1 Defining Greenwashing

The term greenwashing predates its formal academic treatment, having entered popular usage to describe corporate environmental claims that outpaced actual practice. One of the most widely cited management definitions comes from Delmas and Burbano (2011), who define greenwashing as the intersection of poor environmental performance and positive communication about that performance — in their framing, firms greenwash when they are “dirty” but claim to be “green.” This performance-communication gap definition has been influential because it separates greenwashing from simple advertising puffery: the wrongdoing lies not in optimistic language per se, but in the divergence between communicated and actual conduct.

TerraChoice's widely circulated industry audits (TerraChoice, 2010) provided a complementary, more practitioner-oriented taxonomy, identifying recurring tactics such as vague or unsubstantiated claims, irrelevant claims that are technically true but immaterial, and claims that trade off one environmental attribute (e.g., recycled content) while ignoring more material harms elsewhere in the product lifecycle. Later academic work has refined these categories, differentiating greenwashing at the firm level (selective disclosure of positive environmental information at the expense of negative information) from greenwashing at the claim level (specific advertising or labelling claims that mislead about a particular attribute of a product) (Lyon & Maxwell, 2011; Parguel, Benoît-Moreau, & Larceneux, 2011).

The consumer literature on greenwashing has shifted away from treating greenwashing as an objective corporate behaviour and instead focuses on perceived greenwashing as a consumer judgment. According to Nyilasy et al. (2014), a consumer's evaluation of a firm depends not on the firm's actual environmental performance but on the perceived gap between the firm's green marketing claims and its inferred environmental performance. This evaluation can produce negative consumer attitudes and reduced purchase intention, and can occur even when an independent audit of the firm's performance would not confirm the perceived gap. This reframing means that a firm can incur the reputational costs associated with greenwashing even when its communication differs substantially from that of firms which have previously deceived consumers.

2.2 Defining Green Trust

Green trust was formally introduced into the marketing literature by Chen (2010), who defined it as a consumer's willingness to depend on a product, service, or brand based on expectations resulting from its credibility, benevolence, and ability with respect to environmental performance. This definition deliberately borrows from the threefold structure of the general trust literature — competence, benevolence, and integrity — adapted for environmental claims. Chen (2010) empirically situates green trust within a larger nomological network that includes green brand image and green satisfaction, treating trust as a proximal driver of green brand equity.

Chen and Chang (2013) extended this model by introducing green consumer confusion and green perceived risk as mediating mechanisms through which greenwash undermines green trust. In their formulation, exposure to greenwashing increases the cognitive difficulty consumers experience in distinguishing genuinely sustainable products from merely marketed ones (green consumer confusion), and increases consumers' perceived likelihood of negative outcomes from choosing a product based on its environmental claims (green perceived risk). Both mediators independently reduce green trust, suggesting that greenwashing does not damage trust solely through a direct “caught lying” mechanism, but also through a more diffuse erosion of consumers' confidence in their own ability to evaluate green claims.

A conceptual point that is easy to overlook is that green trust and the absence of greenwashing are not opposite poles of a single continuum. Even a well-intentioned sustainability claim is unlikely to be trusted if it lacks clarity and is unverifiable or unfamiliar to consumers. Conversely, a claim that would not withstand scrutiny may still be trusted if it is presented with apparent specificity and is supported by endorsement from a familiar or trusted source. The premise that green trust should be treated as an independent evaluative construct, rather than as the residue left over once greenwashing is subtracted, underlies the framework proposed in Section 4.

2.3 Theoretical Background

Three theoretical traditions underpin most explanations of how consumers evaluate sustainability claims. Signaling theory (Spence, 1973) treats environmental claims as signals sent by a better-informed party (the firm) to a less-informed party (the consumer) under conditions of information asymmetry (Akerlof, 1970). A signal is credible to the extent that it is costly to fake — third-party certification, independently verified life-cycle data, and specific quantified claims impose costs on firms that do not actually merit them, and are therefore treated by consumers as more diagnostic than vague, low-cost assertions. This logic explains a recurring empirical finding: consumers discount generic green claims but respond more favourably to claims accompanied by ecolabels or third-party verification (Parguel et al., 2011).

Attribution theory (Kelley, 1967), as applied to green marketing by Mohr, Eroğlu, and Ellen (1998) and later by Nyilasy et al. (2014), concerns how consumers infer the motive behind a firm's environmental

claim. Consumers respond favourably to claims they attribute to genuine environmental commitment, but skeptically, or with reactance, to the same claims when attributed to opportunistic profit-seeking. Attributions are shaped by contextual cues such as the consistency of a firm's environmental behaviour over time, the specificity of the claim, and the presence of a self-serving frame (e.g., a claim that conveniently coincides with a price premium).

Finally, the accumulated construct of green skepticism (Mohr et al., 1998; Leonidou & Skarmeas, 2017) acts as an individual-difference and situational moderator that conditions how strongly consumers scrutinise incoming claims in the first place. Leonidou and Skarmeas (2017) show that green skepticism has distinct antecedents (including exposure to prior greenwashing and generalised advertising skepticism) and distinct consequences (including reduced green purchase intention and increased negative word of mouth), positioning it as both a downstream consequence of greenwashing exposure and an upstream moderator of how new claims are processed.

3. Consumer Evaluation Process: From Claim to Trust Judgment

3.1 Exposure to Claims and Initial Processing

When consumers encounter a sustainability claim, whether through packaging, an advertisement, retail signage, or digital media, they initiate a process to evaluate the claim. This initial processing is typically not very deep, and consumers rely largely on heuristic cues such as colour schemes reminiscent of nature, imagery of globes and leaves, and vague language, which is often the extent of the scrutiny applied (Schmuck, Matthes, & Naderer, 2018). Schmuck et al. (2018) describe an affect-reason-involvement account in which the effectiveness of a green advertisement depends on the consumer's affective response, the extent of elaborative reasoning about the claim's validity, and the consumer's degree of involvement with the related product category. When a consumer has low involvement with a product category, greenwashed advertisements tend to have the greatest impact, because processing relies on affective heuristics rather than deeper reasoning. When involvement is high, more elaborate reasoning is applied to evaluate the claim, and an implausible claim is more likely to be exposed.

3.2 Perceived Greenwashing as the Key Mediator

When elaboration does occur, the central evaluative judgment is perceived greenwashing — the consumer's belief that a given claim overstates or misrepresents the underlying environmental reality. de Jong, Harkink, and Barth (2018) demonstrate experimentally that perceived greenwashing is largely independent of the actual strength or weakness of a firm's underlying environmental performance; what matters most for consumer response is the communicative style of the claim itself, including its vagueness, its use of unsubstantiated superlatives, and its apparent selectivity. This finding reinforces the argument in Section 2.1 that perceived greenwashing is best conceptualised as a consumer-side judgment rather than a direct readout of firm behaviour.

Activated perceived greenwashing is known to dampen downstream outcomes. Nyilasy et al. (2014) find that perceived greenwashing reduces attitude toward the brand and purchase intention, with the effect strongest among consumers who consider environmental issues personally important — an ironic finding, since the consumers most receptive to green appeals are also the ones most likely to be alienated when those appeals are perceived as false. Similarly, Chen and Chang (2013) find that greenwash perceptions reduce green trust both directly and indirectly, mediated by green consumer confusion and green perceived risk, as described above.

3.3 Boundary Conditions: When Credible Claims Still Fail, and Questionable Claims Still Succeed

A conceptual review should account for the modal case as well as its exceptions. Several boundary conditions complicate a simple linear path from claim credibility to green trust.

First, claim specificity interacts with consumer expertise. Highly specific, quantified claims (e.g., a stated percentage reduction in carbon emissions) act as costly, credible signals for consumers with sufficient literacy to interpret them, but for less environmentally literate consumers the same claims may be processed no differently from vaguer statements, or may even be perceived as less trustworthy because they appear evasive or overly technical (Leonidou & Skarmeas, 2017).

Second, third-party certification is not an unambiguous indicator of credibility. The proliferation of ecolabels, many of which are created by industry associations rather than independent bodies, has itself begun to generate skepticism. Parguel et al. (2011) note that some certifications carry limited signaling value, since consumers cannot easily distinguish rigorous, independently audited labels from self-created ones.

Third, firms can avoid the reputational risk of greenwashing altogether by disclosing less rather than more — a phenomenon Font, Elgammal, and Lamond (2017) term greenhushing. Paradoxically, some companies with genuinely strong environmental performance under-communicate their practices to avoid the scrutiny, skepticism, and potential accusations of greenwashing that come with visible green marketing, particularly in sectors where prior greenwashing scandals have made any claim suspect by association. This indicates that perceived greenwashing does not only penalise dishonest firms; it can also inhibit disclosure by honest firms, with the paradoxical effect of leaving consumers with less, not more, verified information overall.

Fourth, the evaluation process is moderated by brand equity and prior relationship history. Akturan (2018) finds that the negative effect of greenwashing perceptions on purchase intention is weaker for consumers with strong pre-existing brand attachment. This suggests that established brand equity can partially buffer the trust-eroding effects of a single questionable claim, at least in the short term.

4. An Integrative Conceptual Framework

Drawing on the constructs reviewed above, we propose a four-stage conceptual framework for consumer evaluation of sustainability claims.

Stage 1 — Claim Exposure and Signal Encoding. Consumers encounter a sustainability claim embedded with a set of signal properties: specificity, verifiability (presence or absence of third-party certification), consistency with the firm's known environmental history, and framing (self-serving versus other-serving language).

Stage 2 — Elaboration and Attribution. Depending on involvement and prior green skepticism, consumers either process the claim heuristically (relying on affective and visual cues) or elaborate on it more effortfully, forming an attribution about the firm's underlying motive.

Stage 3 — Evaluation of Perceived Greenwashing. Elaboration (or, in low-involvement cases, a simpler heuristic judgment) translates into a perceived greenwashing assessment, which serves as the key mediating variable linking claim characteristics to trust outcomes. This judgment is based on, but not reducible to, the firm's actual environmental performance.

Stage 4 — Trust versus Distrust. Perceived greenwashing affects green trust directly and through the mediators of green consumer confusion and green perceived risk (Chen & Chang, 2013). The resulting trust judgment then feeds forward into green brand equity, purchase intention, and word of mouth (Chen,

2010; Akturan, 2018), and feeds back recursively into the consumer's baseline level of green skepticism, which conditions how the next claim encountered will be processed (Leonidou & Skarmas, 2017).

We argue that the recursive feedback loop in Stage 4 is the least well-developed feature of previous models. Each trust or distrust judgment updates the consumer's baseline skepticism, so the consumer evaluation process is path-dependent at the category level: a market in which greenwashing has been prevalent will exhibit systematically higher baseline skepticism, meaning that even objectively honest claims face a higher evidentiary bar than they would in a market with a cleaner track record. This dynamic offers one explanation for the well-documented “green trust deficit” observed across mature green-marketing categories such as cleaning products and apparel, where decades of contested claims have raised the baseline skepticism that any new entrant, however credible, must overcome.

5. Discussion

This review positions perceived greenwashing not as a discrete failure mode but as a mediating evaluative stage through which nearly all sustainability claims must pass. This re-positioning has three implications. First, the effectiveness of a sustainability claim cannot be assessed independently of the communicative environment in which it is embedded. A claim that would be judged credible in a category with a clean track record may be judged skeptically in a category associated with prior scandals, independent of the claim's own merits. This helps to explain the apparently inconsistent findings across empirical studies conducted in different product categories and cultures.

Second, the distinction between objective firm behaviour and consumer-perceived greenwashing is of practical relevance for how researchers operationalise “greenwashing” as a variable. Manipulating objective environmental performance (e.g., through fictitious company profiles) captures a different construct than measuring consumers' spontaneous perceptions of greenwashing in field settings. The framework proposed here suggests that both are necessary, but that the perceptual measure is the more proximal predictor of green trust.

Third, the greenhushing phenomenon (Font et al., 2017) implies that the policy goal of reducing greenwashing and the goal of increasing the total volume of credible environmental information available to consumers can be in tension. If the perceived cost of an ambiguous claim being misjudged as greenwashing outweighs the perceived benefit of disclosure, incentives for honest firms to disclose may be weakened. As a result, regulation of sustainability claims that focuses only on punishing false or misleading language may inadvertently incentivise honest firms to disclose less.

6. Managerial and Policy Implications

For managers, the framework suggests that claim specificity and independent verification are not optional stylistic choices but functional requirements for a claim to survive the perceived-greenwashing filter, particularly in categories with elevated baseline skepticism. Firms should also recognise that the consumers most likely to engage with green claims — those high in environmental involvement — are also the consumers most likely to elaborate critically on those claims, meaning that appeals aimed at this segment carry higher reputational stakes than appeals aimed at less involved segments.

For policymakers and standard-setting bodies, the proliferation and heterogeneity of ecolabels identified by Parguel et al. (2011) suggests that consolidating or clearly differentiating certification schemes by rigor could restore some of the signaling value that has been diluted by label proliferation. Regulatory approaches modeled on truth-in-advertising frameworks, which focus on the veracity of specific claims,

may need to be complemented by category-level interventions that address the cumulative erosion of baseline trust, since the framework proposed here implies that consumer skepticism operates partly at the level of the product category rather than only at the level of the individual firm or claim.

7. Limitations and Future Research Directions

This paper is a conceptual review and synthesis of existing empirical findings and does not test new hypotheses. The proposed framework requires direct empirical validation, preferably using longitudinal designs able to capture the recursive feedback loop described in Section 4.

Several further limitations and related research opportunities can be identified. The reviewed literature is weighted toward North American, European, and East Asian consumer contexts; cross-cultural research is needed to determine whether the attribution and skepticism mechanisms proposed here generalise to markets with different regulatory environments and different baseline levels of institutional trust.

Digital and social media contexts, including influencer-mediated sustainability claims and algorithmically curated green content, remain comparatively underexamined relative to traditional advertising and packaging claims, and may introduce distinct signaling dynamics (for instance, the perceived authenticity of an individual influencer as a credibility cue distinct from firm-level signals).

Finally, most existing measures of green trust and perceived greenwashing are cross-sectional, making it difficult to disentangle the direction of causality between rising baseline skepticism and declining trust in specific claims. Panel designs that track the same consumers' evaluations of successive sustainability claims over time would allow more direct testing of the path-dependence argument advanced in this review.

8. Conclusion

The transition from greenwashing to green trust is neither automatic nor symmetric. This review has argued that perceived greenwashing functions as the pivotal mediating judgment between exposure to a sustainability claim and the ultimate formation of green trust, operating through green consumer confusion and green perceived risk, and shaped by claim specificity, verifiability, firm track record, and individual consumer skepticism. Each evaluative episode feeds back into consumers' baseline skepticism. Sustainability communication is therefore best understood as a cumulative, category-level phenomenon, and not merely a series of independent, firm-level events. For scholars and practitioners alike, the practical challenge is not merely to avoid greenwashing in any single claim, but to contribute, claim by claim, to rebuilding a baseline of consumer trust that decades of contested green marketing have measurably eroded.

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