

The Impact of Greenwashing Perception on Green Purchase Behavior of Generation Z: A Case Study in Hanoi

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Abstract

This study builds an integrated theoretical framework and methodological design to analyze the impact of greenwashing awareness on the actual green consumption behavior of Gen Z in Hanoi. Based on the combination of the Theory of Planned Behavior, Signaling Theory and Attribution Theory, the study develops a multi-level structural model to explain the process by which awareness of greenwashing transforms into a decline or breakdown in green purchasing behavior. The model proposes indirect impact mechanisms through three intermediate variables including green skepticism, green trust and perceived green risk, and also considers the moderating role of environmental knowledge. This study employs a deductive conceptual research method, combined with a systematic and critical literature review process. The research result is a theoretical model with a system of 11 hypotheses, oriented to test the model using PLS-SEM techniques with a minimum sample size of 400 Gen Z consumers in Hanoi. Thereby addressing three key gaps: clarifying Gen Z's reaction to greenwashing in the context of emerging urban markets; approach the intention-behavior gap by selecting actual green consumption behavior as the final outcome variable; and explain the dual regulatory role of environmental knowledge. The study provides a foundation for further empirical tests, and also proposes management implications for environmental information transparency, greenwashing control and strengthening sustainable brand trust.

Keywords: greenwashing perception, green consumer behavior, green skepticism, Gen Z consumers, intention-behavior gap

1. Introduction

In the context of global environmental degradation and increasingly complex climate change, green consumption has transformed from a voluntary trend into a core behavioral norm to promote a circular economy and sustainable development (Peattie, 2010; White et al., 2019). Facing the rapid increase in community ecological awareness, businesses around the world have proactively integrated environmental protection commitments into marketing strategies, brand positioning and product development (Delmas & Burbano, 2011).

However, the explosion of green marketing has also led to the spread of the phenomenon of “Greenwashing” where businesses intentionally make false, exaggerated or ambiguous claims about environmentally friendly attributes to gain commercial profits (Lyon & Montgomery, 2015). This greenwashing phenomenon not only manipulates public trust but also causes negative backlash, eroding trust in the sustainable product market (Chen & Chang, 2013; Nyilasy et al., 2014). Generation Z (Gen Z)—the young consumer force born from the mid-1990s to 2010 is rising to become the market segment with the deepest behavioral shape and social influence (Francis & Hoefel, 2018).

Characterized as “digital natives” with high levels of education, the ability to access multi-dimensional information, and a special sensitivity to issues of social responsibility, Gen Z shows strong support for green lifestyles (Borah et al., 2024; Lopes et al., 2024). However, the ability to look up and analyze information sensitively in the digital environment also makes Gen Z easily identify, dissect, and react harshly to greenwashing marketing tactics of businesses (Su et al., 2023; Wang et al., 2020).

In Vietnam, Hanoi is a special economic and cultural center, where Gen Z accounts for a large proportion of the population and plays a pioneering role in leading new consumption trends (Nguyen et al., 2019). However, empirical studies to explain the psychological impact mechanism of greenwashing awareness on Gen Z’s actual green consumption behavior in emerging markets are still very fragmented. The widespread existence of the “intention-behavior gap” raises an urgent theoretical question: What cognitive and emotional mechanisms transform perceived greenwashing into a breakdown in Gen Z’s actual green purchasing behavior? (ElHaffar et al., 2020; Wiederhold & Martinez, 2018). This study was conducted to address the above research gap.

The article builds an integrated theoretical framework based on the Theory of Planned Behavior (Ajzen, 1991), Signaling Theory (Spence, 1973), and Attribution Theory (Kelley, 1967). The goal of the research is to clarify the indirect impact paths through Green Skepticism (Goh & Balaji, 2016), Green Trust (Chen, 2010), Perceived Green Risk (Zhang et al., 2018), and the moderating role of Environmental Knowledge (Lin & Niu, 2018) on Gen Z’s green consumption behavior in Hanoi. The study makes an important contribution to the theoretical treasure of sustainable marketing management and provides practical policy suggestions for businesses in Vietnam.

2. Literature Review

2.1 Theoretical Foundations

To build a solid theoretical foundation, this study performs a systematic integration of three classic management and consumer behavior theoretical models. First, Ajzen's (1991) Theory of Planned Behavior (TPB) asserts that behavioral intention is the most important and direct predictor of actual behavior. However, in the field of sustainable consumption, TPB shows its limitations when it cannot fully explain the phenomenon of "intention-behavior gap", where consumers have a positive attitude but abandon the actual purchase decision due to the appearance of negative cognitive barriers (ElHaffar et al., 2020; Wiederhold & Martinez, 2018).

To supplement the limitations of TPB, Spence's Signaling Theory (1973) is introduced to explain the operation of information in asymmetric market conditions (Information Asymmetry). Environmental protection statements or eco-labels issued by businesses act as "signals" representing product quality (Ernst et al., 2022). When Greenwashing behavior occurs, these green signals are distorted or faked, reducing information value and activating consumers' cognitive defense mechanisms regarding brand authenticity (Guo & Luo, 2023; Nyilasy et al., 2014).

Next, Kelley's (1967) Attribution Theory explains the internal psychological reaction when consumers receive noisy green signals. Accordingly, when detecting inconsistencies between media messages and actual actions of businesses, consumers will perform the process of attributing motives (Camilleri, 2022; Skarmeas & Leonidou, 2013). If businesses are accused of carrying out green campaigns for the purpose of "self-serving attribution" instead of "for social benefits" (altruistic attribution), negative psychological variables including skepticism, erosion of trust, and increased perceived risk will immediately explode (Chen & Chang, 2013; Zhang et al., 2018).

2.2 Multidimensional Nature of Greenwashing and Consumer Perception

To understand the mechanism of consumer perception formation, the Greenwashing phenomenon needs to be dissected from many marketing and brand management perspectives. Critical analysis of the empirical work of Delmas and Burbano (2011) and Lyon and Montgomery (2015) shows that greenwashing is not simply blatant false statements, but operates through a system of sophisticated manipulation strategies. The most common is the vague statement strategy, where businesses abuse terms that have not been legally standardized such as "natural", "eco-friendly", or "low carbon footprint" to create a false sense of security for customers (Schmuck et al., 2018). In addition, the form of providing green data that cannot be verified by a third party or selecting information in a way that only emphasizes a small green feature to cover up large-scale polluting production processes is creating serious information turbulence in the market (Parguel et al., 2011; Lyon & Montgomery, 2015).

Greenwashing Perception arises when consumers identify a break between the public image that the brand builds and the actual operations of the business (Chen & Chang, 2013; Nyilasy

et al., 2014). The development of digital media and social networks increases information transparency, making greenwashing marketing tricks easier to exploit than ever (Akturan, 2018). Previous research works by Chen and Chang (2013), Nyilasy et al. (2014), and Szabo and Webster (2021) demonstrated that when consumers form perceptions of greenwashing, a cascade of negative cognitive and emotional responses is triggered. This reaction goes beyond underestimating brand value to giving rise to manipulative sentiment, promoting boycotts, and undermining the entire trust structure towards sustainable products (Parguel et al., 2011; Su et al., 2023). Although the importance of greenwashing awareness has been affirmed in many contexts, most of the existing empirical research still focuses on exploiting the common consumer group in developed countries in Europe and America, where the legal framework on eco-labels is relatively complete and strict (Delmas & Burbano, 2011; Wiederhold & Martinez, 2018).

2.3 Mediating Psychological Mechanisms and Intention-Behavior Gap

The relationship from Greenwashing awareness to actual green consumption decisions is a complex psychological process including sequential and parallel impact chains. The first link is Green Skepticism, defined as a consumer's cognitive state of doubt regarding the authenticity of environmental messages (Obermiller & Spangenberg, 1998; Goh & Balaji, 2016). When businesses are discovered to be greenwashing, this skepticism immediately explodes, acting as a natural defense mechanism to help consumers avoid being deceived by marketing tricks (Aji & Sutikno, 2015). Green skepticism not only erodes positive attitudes toward products but also directly suppresses the motivation to buy ecologically (Nguyen et al., 2019).

The second link heavily influenced by greenwashing awareness is Green Trust, which is customers' firm belief in the brand's ability to implement environmental protection commitments (Chen, 2010). Trust is the core intangible asset that determines the success of green marketing. However, according to Signaling Theory, when green signals are discovered to be lies, green trust will completely break down (Ernst et al., 2022). Chen and Chang (2013), as well as Tarabieh (2021), emphasize that restoring green trust after being devastated by greenwashing is extremely difficult, creating a persistent psychological barrier that prevents re-establishment of purchasing behavior.

At the same time, information insecurity triggers Green Perceived Risk, which reflects consumers' concerns about financial loss, poor functionality, or emotional disappointment when paying higher prices for "fake green" products (Chen & Chang, 2012; Zhang et al., 2018). When perceived risk exceeds the psychological safety threshold, consumers will choose the safe solution of withdrawing from green transactions (Zhang et al., 2018).

The biggest limitation in this series of empirical studies on intermediate variables is the overreliance on the dependent variable Green Purchase Intention (GPI). Although the works of Mostafa (2007), Yadav and Pathak (2017), and Kumar et al. (2021) reinforced the mediating role of skepticism, trust and risk on purchase intention, but they lacked a direct test of actual Green Purchase Behavior (GPB). In marketing practice, intention has never been synonymous with execution. The "intention-behavior gap" phenomenon occurs commonly

when barriers in price, product availability, and especially greenwashing skepticism prevent intentions from converting into actual monetary actions (Joshi & Rahman, 2015; ElHaffar et al., 2020). Therefore, building a model that simultaneously integrates psychological mediating variables to directly decode the actual purchasing behavior of GPB plays an extremely urgent role to fill this theoretical gap.

2.4 Gen Z Characteristics, Environmental Knowledge, and Critical Research Gaps

Gen Z is rising to become the most market-shaping consumer group in the digital era (Francis & Hoefel, 2018). Characterized by “digital natives”, Gen Z sensitively accesses social network information, possesses a high educational background and shows deep concern for sustainable development goals and climate change (Borah et al., 2024; Lopes et al., 2024). Unlike previous generations, Gen Z tends to view consumption behavior as a means of expressing self-worth and social responsibility (Francis & Hoefel, 2018). However, this sharp information processing ability also increases Gen Z’s level of strictness regarding corporate honesty. They do not easily accept one-sided marketing messages but always actively seek authentic evidence from the community (Su et al., 2023).

In the cognitive structure of Gen Z, Environmental knowledge plays a role as a specific regulatory lens (Lin & Niu, 2018; Lavuri et al., 2023). Environmental knowledge represents an individual’s level of understanding about ecological problems, causes of pollution, and solutions to protect nature (Amyx et al., 1994). In traditional studies, environmental knowledge is often considered a factor that promotes green purchase intention (Lin & Niu, 2018). However, when placed in the context of facing the Greenwashing phenomenon and from the perspective of Attribution Theory, the role of environmental knowledge becomes complex and two-sided (Aji & Sutikno, 2015; Wang et al., 2020). Gen Z individuals with a deep ecological understanding possess better message analysis abilities, helping them easily detect loopholes, ambiguities, or inconsistencies in businesses’ green advertising (Wang et al., 2020). As a result, for customer groups with high environmental knowledge, greenwashing awareness will trigger skepticism and attribution of profiteering motives much more harshly than for groups with less knowledge (Aji & Sutikno, 2015). This increased moderating role of environmental knowledge has never been thoroughly empirically tested for Gen Z in developing cities like Hanoi.

From a critical review of the previous literature system, this study identifies three core theoretical gaps that need to be resolved: (1) First gap, most of the current theoretical frameworks on Greenwashing are developed in Western markets. There is a lack of an integrated theoretical model explaining the psychological and behavioral reactions of Gen Z, a pioneering but sensitive consumer group, to the phenomenon of greenwashing in an emerging market with an eco-label institution in the process of being perfected like Hanoi, Vietnam. The second gap is that previous studies often discretely approached the variables of skepticism, trust or risk, and stopped at measuring Purchase Intention (GPI). This paper fills the gap by simultaneously connecting three parallel psychological mediating mechanisms (GS, GT, GPR) to explain the rupture that leads directly to Actual Green Buying Behavior (GPB). The third gap is the lack of empirical testing of the moderating role of Environmental

Knowledge (GK) in promoting the impact relationship from Greenwashing Awareness to Green Skepticism of Gen Z consumers.

3. Method

This study employs a deductive conceptual research approach combined with a systematic and critical literature review. Its methodological objective is not to conduct quantitative testing on empirical data, but rather to construct a robust theoretical framework, identify knowledge gaps, and propose a standardized research model along with a set of structural hypotheses to facilitate future empirical testing.

The theoretical research process follows three specific methodological steps: First, the study gathers and screens literature from reputable academic databases indexed in ISI/Scopus (such as Web of Science, Scopus, ScienceDirect, Springer, and Wiley). Search keywords are combined using specific parameters, including “Greenwashing perception”, “Green purchase behavior”, “Green skepticism”, “Green trust”, “Green perceived risk”, “Theory of Planned Behavior”, “Signaling Theory”, “Attribution Theory”, and “Gen Z consumers”. Selected works focus on theoretical and empirical articles published in high-quality specialized journals from 1991 to the present.

Second, the study employs comparative and critical analysis techniques to dissect existing theoretical pathways. By examining the interplay between three foundational theories the Theory of Planned Behavior (TPB), Signaling Theory, and Attribution Theory the research deciphers the psychological mechanisms that transform “greenwashing” signals into cognitive barriers. Simultaneously, the critical review process highlights the lack of integrated research addressing the intention-behavior gap among Generation Z consumers in emerging markets such as Hanoi, Vietnam. Third, based on the review results and identified research gaps, the article operationalizes the research concepts and synthesizes a set of standardized scales derived from international studies. The study proposes a technical procedure for subsequent quantitative research, specifically: designing a survey questionnaire using a 5-point Likert scale; targeting Gen Z consumers (aged 18–29) in Hanoi with a minimum sample size of $N = 400$; and outlining the application of Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software to test the proposed structural model and hypotheses.

4. Results

Based on comprehensively addressing the three identified research gaps, this study proposes a structural theoretical model regarding the impact of Greenwashing Perception on the Green Consumption Behavior of Gen Z in Hanoi. The model is designed to serve as a foundational theoretical framework for subsequent empirical studies employing PLS-SEM techniques for data collection and analysis. In the proposed structural model, Greenwashing Perception (GWP) acts as the direct independent variable. The impact of GWP on the ultimate dependent variable—Actual Green Consumption Behavior (GPB)—is mediated through a two-stage structural process. The first mediation stage comprises three parallel psychological variables: Green Skepticism (GS), Green Trust (GT), and Perceived Green Risk (GPR). The second

mediation stage is Green Purchase Intention (GPI), which serves as a bridge transforming psychological responses into actual GPB. Additionally, Environmental Knowledge (GK) is incorporated into the model as a variable moderating the impact of GWP on GS. The detailed set of 11 structural hypotheses formulated for PLS-SEM testing of the proposed model is presented below:

Regarding the direct impact of greenwashing on psychological variables, Hypothesis H1a proposes that Greenwashing Perception (GWP) has a direct positive impact on the Green Skepticism (GS) of Gen Z in Hanoi. Hypothesis H1b proposes that Greenwashing Perception (GWP) has a direct negative impact on the Green Trust (GT) of Gen Z. Hypothesis H1c posits that Greenwashing Perception (GWP) has a direct positive impact, increasing the Perceived Green Risk (GPR) among Gen Z in Hanoi. Regarding the group of effects concerning intention and actual behavior, hypothesis H2a posits that Green Skepticism (GS) has a direct negative impact on Gen Z's Green Purchase Intention (GPI). Hypothesis H2b proposes that Green Trust (GT) has a direct positive impact on Gen Z's Green Purchase Intention (GPI). Hypothesis H2c asserts that Perceived Green Risk (GPR) has a direct negative impact on Gen Z's Green Purchase Intention (GPI). Hypothesis H3 suggests that Green Purchase Intention (GPI) has a direct positive impact on Gen Z's actual Green Purchase Behavior (GPB) in Hanoi, thereby bridging the intention-behavior gap.

Regarding the group of multi-level mediating effects, hypothesis H4a posits that Green Skepticism (GS) mediates the negative relationship between Greenwashing Perception (GW) and Green Purchase Intention (GPI). Hypothesis H4b states that Green Trust (GT) mediates the relationship between Greenwashing Perception (GW) and Green Purchase Intention (GPI). Hypothesis H4c proposes that Perceived Green Risk (GPR) mediates the relationship between Greenwashing Perception (GW) and Green Purchase Intention (GPI). Finally, hypothesis H5 regarding the moderating effect states that Environmental Knowledge (GK) moderates the relationship between Greenwashing Perception (GW) and Green Skepticism (GS); specifically, the higher the level of environmental knowledge among Gen Z, the stronger the positive impact of greenwashing perception on green skepticism.

This structural model (Figure 1) contributes two significant values to management science. Theoretically, the model comprehensively addresses the intention-behavior gap by simultaneously integrating Signaling Theory, Attribution Theory, and the Theory of Planned Behavior (TPB) to explain the disconnect between the perception of greenwashing and actual purchasing behavior. Practically, the model offers a robust assessment tool for brand managers and policymakers in Vietnam to pinpoint exactly where Gen Z's trust breaks down, thereby enabling the standardization of sustainability communications and the transparent disclosure of corporate environmental responsibilities.

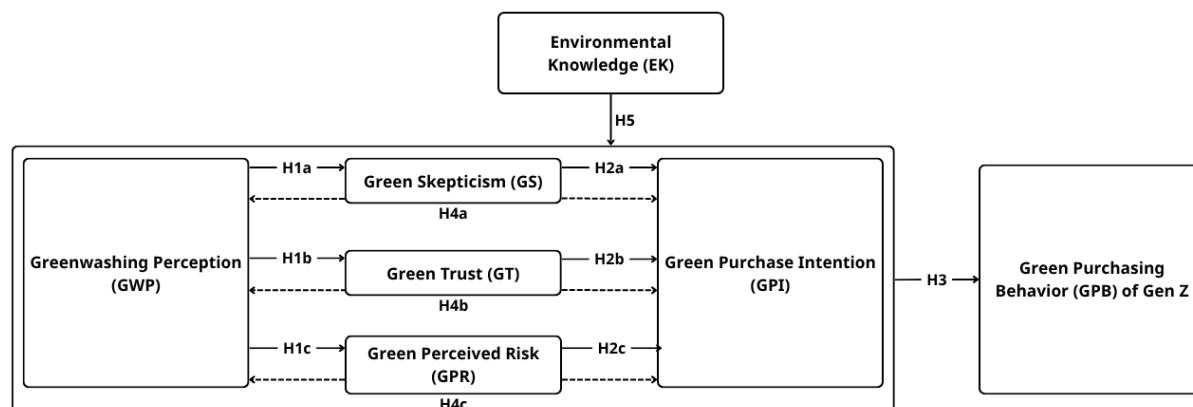


Figure 1. Model of the impact of greenwashing perception on Gen Z's green consumption behavior

Source: Proposed by the authors.

5. Discussion

The primary objective of this conceptual study is to resolve the psychological mechanisms and systemic pathways through which greenwashing perception ruptures actual green purchasing behavior among Generation Z consumers in Hanoi. By integrating the Theory of Planned Behavior, Signaling Theory, and Attribution Theory, the proposed multi-level model addresses crucial gaps in the sustainable marketing literature, particularly within emerging Asian urban markets.

In conceptualizing greenwashing perception, this study views it not merely as an isolated cognitive evaluation, but as a catalyst for a chain of adverse psychological reactions. In line with Spence's Signaling Theory, corporate eco-friendly claims function as signals intended to reduce information asymmetry in the market. However, when Gen Z consumers detect greenwashing whether through vague claims, unverifiable data, or hidden trade-offs these green signals transform into deceptive noise. This signal distortion directly activates three parallel internal defense mechanisms. First, in agreement with existing literature on consumer skepticism, Gen Z digital natives actively deploy green skepticism as a protective cognitive filter to avoid falling victim to manipulative marketing. Second, greenwashing fundamentally undermines the relational bond between consumers and sustainable brands, leading to a severe erosion of green trust and a long-term breakdown in brand credibility. Third, information insecurity triggers heightened green perceived risk, reflecting consumers' deep-seated concerns about financial, functional, and emotional losses when paying price premiums for products with questionable environmental attributes. In the context of Hanoi, an emerging market where institutional mechanisms and eco-labeling standards are still evolving, these three psychological friction points operate with heightened intensity, forming a formidable psychological barrier that suppresses green purchase intention.

A central theoretical contribution of this study lies in extending the traditional Theory of Planned Behavior framework by incorporating actual green purchase behavior as the final

outcome variable, rather than stopping at green purchase intention as most empirical literature does. By modeling purchase intention as a structural mediator between the psychological tri-mechanism skepticism, trust erosion, and perceived risk and actual purchase behavior, the framework explicitly accounts for the intention-behavior rupture caused by negative cognitive friction. When Gen Z consumers apply Attribution Theory to corporate green claims, attributing them to self-serving or profiteering motives rather than genuine environmental commitment, their positive ecological attitudes fail to translate into monetary transactions at the point of sale.

Furthermore, this study highlights the complex, dual moderating role of environmental knowledge among Generation Z. While traditional literature predominantly views environmental knowledge as a direct enabler of pro-environmental behavior, this framework posits that higher environmental knowledge acts as a sharp analytical tool that exacerbates green skepticism when greenwashing is detected. Because Gen Z in Hanoi possesses higher digital literacy and ecological awareness compared to previous generations, knowledgeable consumers are far better equipped to cross-reference corporate claims, identify inconsistencies, and react more harshly to deceptive marketing tactics.

6. Conclusion

This study has successfully established a comprehensive conceptual framework explaining how greenwashing perception disrupts actual green consumption behavior among Generation Z consumers in Hanoi. By synthesizing the Theory of Planned Behavior, Signaling Theory, and Attribution Theory, the research unveils a multi-stage impact pathway wherein greenwashing perception induces three parallel psychological barriers green skepticism, trust erosion, and perceived risk which subsequently suppress green purchase intention and ultimately break down actual purchasing behavior. Additionally, environmental knowledge has been conceptualized as a critical moderator that intensifies consumer skepticism upon detecting greenwashing practices. Overall, the study makes a significant theoretical contribution by directly addressing the intention-behavior gap within the context of an emerging market.

From a practical perspective, the findings offer vital insights for corporate managers, green marketers, and regulatory authorities in Vietnam. Businesses targeting Generation Z can no longer rely on vague or unverified eco-claims; instead, brands must achieve radical operational transparency by obtaining credible third-party eco-certifications and disclosing lifecycle assessment data. Marketers must actively focus on rebuilding green trust and mitigating perceived risks by offering clear performance guarantees and transparent supply chain reporting. At the macro level, policymakers in Vietnam must accelerate the establishment of clear legal definitions, unified eco-labeling standards, and strict penalties for misleading green claims to protect consumers and foster a healthy sustainable marketplace.

Despite these meaningful contributions, the study possesses certain inherent limitations that open promising avenues for future research. As a conceptual paper, the eleven proposed structural hypotheses require empirical validation. Future research should execute the proposed Partial Least Squares Structural Equation Modeling methodology using a sample of

at least four hundred Gen Z consumers in Hanoi. Moreover, since this study focuses strictly on Hanoi, future empirical investigations could broaden the geographic scope to compare different urban centers across Vietnam or examine cross-cultural variations between emerging and developed economies. Finally, researchers are encouraged to apply this model to specific product categories, such as organic food, eco-fashion, or green cosmetics, to determine whether product involvement alters the psychological impact of greenwashing.

References

- Aji, H. M., & Sutikno, B. (2015). The extended consequence of greenwashing: Perceived consumer skepticism. *International Journal of Agricultural Resources, Governance and Ecology*, 11(3–4), 333–348.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akturan, U. (2018). How does greenwashing affect green branding equity and purchase intention? An empirical research. *Marketing Intelligence & Planning*, 36(7), 809–824. <https://doi.org/10.1108/MIP-12-2017-0339>
- Amyx, D. A., DeJong, P. F., Lin, X., Chakraborty, G., & Wiener, J. L. (1994). Influencers of environmentally concerned consumer behavior. *Journal of Marketing Theory and Practice*, 2(4), 1–12.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Borah, P. S., et al. (2024). Gen Z's green purchase behavior: The role of environmental awareness and greenwashing perception. *Business Strategy and the Environment*, 33(3), 2432–2444. <https://doi.org/10.1002/bse.3714>
- Camilleri, M. A. (2022). Strategic attributions of corporate social responsibility and environmental management: The business case for doing well by doing good! *Sustainable Development*, 30(3), 409–422. <https://doi.org/10.1002/sd.2256>
- Chan, R. Y. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing*, 18(4), 389–413. <https://doi.org/10.1002/mar.1013>
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307–319. <https://doi.org/10.1007/s10551-009-0223-9>
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceive value, green perceived risk, and green trust. *Management Decision*, 50(3), 502–520. <https://doi.org/10.1108/00251741211216250>
- Chen, Y. S., & Chang, C. H. (2013). Greenwash and green trust: The mediation terms of green consumer confusion and green perceived risk. *Journal of Business Ethics*, 114(3), 489–500.

<https://doi.org/10.1007/s10551-012-1360-0>

Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87. <https://doi.org/10.1525/cmr.2011.54.1.64>

ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, 275, 122556. <https://doi.org/10.1016/j.jclepro.2020.122556>

Ernst, W. K., et al. (2022). Environmental signaling and consumer trust: A signaling theory perspective. *Journal of Business Research*, 142, 632–645.

Francis, T., & Hoefel, F. (2018). *True Gen: Generation Z and its implications for companies*. McKinsey & Company.

Goh, S. K., & Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131, 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>

Guo, R., & Luo, X. (2023). Unpacking greenwashing: A signaling theory view on eco-label credibility. *Journal of Consumer Marketing*, 40(5), 570–583.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling* (PLS-SEM, 3rd ed.). SAGE Publications. <https://doi.org/10.1007/978-3-030-80519-7>

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1–2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>

Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation*, 15, 192–238.

Lavuri, R., Jindal, A., Akram, U., & Naik, B. K. R. (2023). Exploring the antecedents of sustainable consumers' purchase intentions: Evidence from emerging countries. *Sustainable Development*, 31(1), 280–291. <https://doi.org/10.1002/sd.2389>

Lin, S. T., & Niu, H. J. (2018). Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behavior. *Business Strategy and the Environment*, 27(8), 1679–1688. <https://doi.org/10.1002/bse.2233>

Lopes, J. M., Pinho, M., & Gomes, S. (2024). From green hype to green habits: Understanding the factors that influence young consumers' green purchasing decisions. *Business Strategy and the Environment*, 33(3), 2432–2444. <https://doi.org/10.1002/bse.3602>

Lyon, T. P., & Montgomery, A. W. (2015). The means and end of greenwash. *Organization & Environment*, 28(2), 223–249. <https://doi.org/10.1177/1086026615575332>

- Nguyen, T. T. H., et al. (2019). Greenwashing and green purchase intention: The mediating role of green skepticism. *Journal of Retailing and Consumer Services*, 50, 150–162.
- Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014). Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions. *Journal of Business Ethics*, 125(4), 693–707. <https://doi.org/10.1007/s10551-013-1944-3>
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure skepticism toward advertising. *Journal of Consumer Psychology*, 7(2), 159–186. https://doi.org/10.1207/s15327663jcp0702_03
- Peattie, K. (2010). Green consumption: Behavior and norms. *Annual Review of Environment and Resources*, 35, 195–228. <https://doi.org/10.1146/annurev-environ-032609-094328>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Treating unobserved heterogeneity in PLS-SEM: A review of available approaches and guidelines for use. *Journal of Product Innovation Management*, 34(5), 675–699.
- Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising claims: A second-order meta-analysis. *Journal of Advertising*, 47(4), 387–401. <https://doi.org/10.1080/00913367.2018.1452652>
- Skarmeas, D., & Leonidou, C. N. (2013). When green claims backfire: The role of corporate social responsibility skepticism. *Journal of Business Research*, 66(10), 1796–1803. <https://doi.org/10.1016/j.jbusres.2013.02.004>
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: Insights for green marketing. *Journal of Consumer Marketing*, 16(6), 558–575. <https://doi.org/10.1108/07363769910297506>
- Su, C., et al. (2023). Unraveling Gen Z's eco-repulsion: The impact of greenwashing on brand avoidance. *Journal of Retailing and Consumer Services*, 72, 103280. <https://doi.org/10.1016/j.jretconser.2023.103280>
- Tarabieh, S. (2021). The impact of greenwash practices over green purchase intention: The mediating effects of green confusion, green perceived risk, and green trust. *Management Science Letters*, 11(2), 451–464. <https://doi.org/10.5267/j.msl.2020.9.022>
- Wang, H., Ma, B., & Bai, R. (2020). How greenwashing influences green purchase intention: The mediating role of skepticism and moderating role of environmental knowledge. *Journal of Cleaner Production*, 270, 122477.
- White, K., Hardisty, D. J., & Habib, R. (2019). The SHIFT framework: Encouraging sustainable consumer behavior. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>

Wiederhold, M., & Martinez, L. F. (2018). Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry. *International Journal of Consumer Studies*, 42(4), 419–429. <https://doi.org/10.1111/ijcs.12435>

Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114–122. <https://doi.org/10.1016/j.ecolecon.2016.12.019>

Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intention: The mediating role of green perceived risk and green trust. *Journal of Cleaner Production*, 187, 740–750. <https://doi.org/10.1016/j.jclepro.2018.03.201>

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