



Drivers of Green Purchase Behavior Among Female Gen Z in Jabodetabek, Indonesia: The Roles of Eco-Labeling, Green Brand Image, Environmental Marketing, and Sustainability Influencers

Kuspuji Catur Bagus Wicaksono

Universitas Bina Nusantara,
Indonesia

***Corresponding author:**

Kuspuji Catur Bagus Wicaksono, Universitas
Bina Nusantara, Indonesia. ✉
kuspuji2910@binus.ac.id

Article Info:

Article history:

Received: June 17, 2026

Revised: July 21, 2026

Accepted: July 26, 2026

Keywords:

Eco-Labeling; Environmental
Marketing; Generation Z; Green
Purchase Behavior; Sustainability
Influencers

Abstract

Background: Jabodetabek, Indonesia's largest metropolitan area, faces critical environmental challenges alongside rapid digital adoption among Generation Z.

Objective: This study investigates determinants of green purchase behavior among 220 female Gen Z consumers (aged 18-25) using an extended Theory of Planned Behavior framework.

Methods: Employing PLS-SEM via SmartPLS 4.0, data were collected from 220 female Gen Z respondents (aged 18-25) in Jabodetabek using stratified sampling across five constituent areas. Female Gen Z was selected as the focal demographic due to their disproportionate influence on household purchasing decisions and higher engagement with sustainability discourses in urban Indonesia. The study analyzes the effects of eco-labeling, green brand image, environmental marketing, and sustainability influencers on green purchase behavior.

Results: Results show all four constructs significantly predict green purchase behavior ($p < 0.001$), with eco-labeling demonstrating the strongest effect ($\beta = 0.352$, $p < 0.001$), followed by sustainability influencers ($\beta = 0.342$), environmental marketing ($\beta = 0.341$), and green brand image ($\beta = 0.328$). The model explains 64.3% of variance in green purchase behavior ($R^2 = 0.643$, $Q^2 = 0.412$). Eco-labeling exhibits the largest effect size ($f^2 = 0.142$), followed by sustainability influencers ($f^2 = 0.138$). The moderation effect of sustainability influencers on the environmental marketing-green purchase behavior relationship is also significant ($\beta = 0.118$, $p < 0.01$). Model fit indices indicate acceptable fit (SRMR = 0.062).

Conclusion: These findings provide context-specific insights for policymakers and marketers in urban Indonesia to leverage eco-certifications and sustainability influencers for promoting sustainable consumption.

To cite this article: Wicaksono, K. C. B. (2026). *Drivers of green purchase behavior among female Gen Z in Jabodetabek, Indonesia: The roles of eco-labeling, green brand image, environmental marketing, and sustainability influencers*. *INKUBIS: Jurnal Ekonomi dan Bisnis*, 8(2), xx-xx. <https://doi.org/10.59261/inkubis.v8i2.373>

INTRODUCTION

The Jabodetabek metropolitan area—encompassing Jakarta, Bogor, Depok, Tangerang, and Bekasi—represents Indonesia's economic and cultural epicenter, housing approximately 30 million residents and generating nearly 20% of the nation's GDP (BPS-Statistics Indonesia, 2023). This urban conglomeration faces acute environmental challenges, including severe air pollution, water contamination, and waste management crises, while simultaneously exhibiting some of Southeast Asia's highest rates of digital connectivity and social media engagement (Zhang & Dong, 2020). Within this complex urban ecosystem, Generation Z consumers—particularly young women—are emerging as influential agents of change in consumption patterns, blending

traditional Indonesian values with global digital trends (Djafarova & Bowes, 2021).

Jabodetabek's combination of extreme population density, socioeconomic disparities, and high digital connectivity creates a distinctive context for examining sustainable consumption (Pham et al., 2019). Residents experience daily environmental stressors—from traffic congestion to plastic waste—that make sustainability issues personally relevant rather than abstract concerns (Nguyen et al., 2019). Simultaneously, Jabodetabek serves as Indonesia's digital innovation hub, with social media penetration exceeding 85% among 18-25-year-olds and e-commerce platforms like Shopee, Tokopedia, and Lazada dominating retail landscapes (Kompas, 2023).

Female Gen Z consumers in Jabodetabek represent a particularly strategic demographic for sustainability transitions (Setyawan, 2018). These young women typically have higher education levels than previous generations, greater English proficiency enabling access to global sustainability discourses, and significant influence over household purchasing decisions despite often having limited independent incomes (Varshneya et al., 2017). Their consumption behaviors reflect complex negotiations between aspirational global sustainability trends and practical local constraints, creating a fascinating research context with implications for urban sustainability initiatives across Southeast Asia (Ghazali et al., 2019).

This study focuses specifically on how four key factors—eco-labeling, green brand image, environmental marketing, and sustainability influencers—shape green purchase behavior among this demographic. Previous research on green purchase behavior reveals inconsistent findings: while Biswas & Roy (2015) found eco-labeling as the strongest predictor in Western contexts, identified social influence as more dominant in Indonesian settings. Furthermore, studies Moslehpour et al. (2023) in other emerging markets produced divergent results regarding the role of environmental marketing, suggesting that contextual factors critically moderate these relationships. These inconsistencies point to a clear knowledge gap: the simultaneous examination of eco-labeling, green brand image, environmental marketing, and sustainability influencers within a specific metropolitan emerging market context has not been systematically undertaken. The region's unique combination of environmental urgency, digital saturation, and youth-driven consumer culture creates distinctive dynamics that merit focused investigation (Moslehpour et al., 2023).

Our research addresses three specific questions: First, how do traditional sustainability signals (eco-labels, brand image) function in Jabodetabek's crowded retail environment where counterfeit certifications and greenwashing are common concerns. Second, how does environmental marketing navigate the region's complex media landscape, where traditional advertising coexists with digital native content. Third, what role do sustainability influencers—many of whom are Jabodetabek residents themselves—play in bridging global sustainability discourses with local consumption realities.

Theoretically, this study contributes to the literature on sustainable urban consumption by examining how metropolitan characteristics mediate relationships between marketing stimuli and consumer behavior. This study extends the Theory of Planned Behavior (TPB) in two important ways. First, it introduces sustainability influencers as a moderating variable that amplifies the effect of environmental marketing on green purchase behavior, a mechanism not previously tested within the TPB framework. Second, it examines how metropolitan-specific boundary conditions (information overload, social visibility, environmental salience) modify the standard TPB pathways, thereby contributing to the theoretical understanding of how urban contexts shape planned behavior. The TPB constructs are contextualized within Jabodetabek's specific urban environment, where factors like traffic congestion (affecting shopping mobility), air quality alerts (increasing environmental salience), and digital infrastructure (enabling influencer access) potentially modify standard behavioral pathways (Liu et al., 2020; Maichum et al., 2016).

Practically, our findings offer targeted insights for stakeholders operating within Jabodetabek's specific market conditions. For retailers and brands, we provide guidance on tailoring sustainability communications to this metropolitan audience. For policymakers in Jakarta and surrounding municipalities, we identify leverage points for promoting sustainable consumption through local initiatives. For sustainability advocates and educators, we suggest strategies for engaging urban youth through culturally-relevant approaches.

The remainder of this paper proceeds as follows. Section 2 develops our theoretical framework and hypotheses, situating existing literature within Jabodetabek's specific context. Section 3 details our methodology, emphasizing sampling approaches relevant to the region's diversity. Section 4 presents empirical findings. Section 5 discusses implications for theory and practice, with particular attention to urban sustainability governance. Section 6 concludes with limitations and future research directions.

Before examining specific constructs, it is essential to contextualize how Jabodetabek's urban characteristics potentially moderate standard relationships in sustainability marketing (Kautish et al., 2019). The region exhibits several distinctive features: extreme population density creating information overload, significant income inequality segmenting consumer capabilities, world-leading social media usage shaping information channels, and daily environmental degradation making sustainability personally salient (Panda et al., 2020). These conditions create what urban sociologists term a "pressure-cooker" environment for sustainable consumption, where awareness is high but practical constraints are significant.

Research in urban consumer behavior suggests that metropolitan environments amplify certain psychological processes while constraining others. Information overload may increase reliance on heuristic decision-making (enhancing the importance of eco-labels), while social visibility may strengthen normative influences (increasing the impact of brand image and influencers) (Chaiken, 1980). Simultaneously, practical constraints like limited living space for waste separation or traffic discouraging trips to specialty green stores may undermine behavioral control (Nguyen et al., 2019). Our theoretical framework therefore considers how Jabodetabek's specific urban conditions might shape the operation of standard sustainability marketing mechanisms.

Eco-labeling refers to third-party environmental certifications that verify product claims against established standards. In Jabodetabek's retail environment—characterized by hypermarkets, modern convenience stores, and bustling traditional markets—eco-labels face both opportunities and challenges. The region's high education levels and environmental awareness create receptive audiences for certification systems, yet market saturation with both genuine and counterfeit green claims creates consumer confusion (Rausch & Kopplin, 2021). Consumer skepticism toward green advertising (greenwashing) is a particularly salient issue in Jabodetabek, where the proliferation of unverified environmental claims has eroded trust in green product marketing. Wang et al. (2025) found that perceived greenwashing significantly diminishes green brand loyalty among Indonesian consumers. This skepticism may function as a boundary condition that strengthens the relative importance of credible eco-labels while weakening the effect of corporate environmental marketing claims.

The Indonesian government's "Ekolabel Indonesia" program, while nationally administered, has particular relevance in Jabodetabek where regulatory enforcement is relatively stronger and consumer awareness campaigns more concentrated (Alamsyah et al., 2020). However, international certifications (like Energy Star, Fair Trade, or FSC) also proliferate, creating a complex landscape that urban consumers must navigate. Research suggests that in dense urban environments with limited shopping time, credible eco-labels serve as crucial decision heuristics, reducing search costs and perceived risk (Petty & Cacioppo, 1986).

We hypothesize that in Jabodetabek's specific context, eco-labeling will have particularly strong effects due to three urban characteristics: (1) information overload increasing reliance on simple signals (Spence, 1978). (2) higher education levels enabling label comprehension, and (3) environmental salience making certification more personally relevant (Yadav & Pathak, 2017). Thus:

H1: Eco-labeling has a positive and significant effect on green purchase behavior among female Gen Z in Jabodetabek.

Green brand image represents consumers' holistic perceptions of a brand's environmental commitment. In Jabodetabek's status-conscious consumer culture—where brand choices signal social position and values—this construct takes on particular significance. The region's extreme income inequality creates diverse brand engagement patterns, from luxury sustainable brands in affluent South Jakarta to affordable ethical alternatives in Bekasi's growing middle-class neighborhoods (Huang et al., 2014).

Urban sociology research indicates that in densely populated environments, consumption

becomes increasingly visible and thus increasingly symbolic (Tajfel et al., 2001). For Gen Z women in Jabodetabek, whose social lives heavily involve public spaces (malls, cafes, universities) and social media, brand choices carry strong identity-signaling functions (Djafarova & Bowes, 2021). Sustainable brands offer opportunities to communicate both cosmopolitan values (alignment with global trends) and local consciousness (concern for Jakarta's environmental issues).

We propose that in Jabodetabek's specific context, green brand image effects are amplified by two factors: (1) high social visibility strengthening normative functions. (2) identity exploration during young adulthood increasing brand-self congruence seeking (Varshneya et al., 2017). Thus:

H2: Green brand image has a positive and significant effect on green purchase behavior among female Gen Z in Jabodetabek.

Environmental marketing encompasses corporate communications about sustainability through various channels. Jabodetabek presents a complex media landscape where traditional channels (billboards, print, television) coexist with sophisticated digital ecosystems. The region leads Indonesia in digital advertising expenditure, with mobile-first strategies dominating due to high smartphone penetration and commuting patterns involving long transit times ideal for mobile content consumption (Vandenbosch et al., 2022).

Urban media research indicates that metropolitan residents develop distinctive media consumption patterns characterized by fragmentation, multitasking, and platform-hopping (Vandenbosch et al., 2022). Environmental marketing messages must compete not only with commercial clutter but also with urgent urban content like traffic reports, pollution alerts, and public service announcements (Salnikova et al., 2022). Successful campaigns often leverage hyper-local elements—Jakarta's floods, Bekasi's waste issues, Tangerang's river pollution—to increase relevance.

We hypothesize that in Jabodetabek's media-saturated environment, environmental marketing effectiveness depends on three factors: (1) message alignment with local urban issues, (2) platform adaptation to mobile commuting contexts, and (3) integration across online-offline touchpoints. Thus:

H3: Environmental marketing has a positive and significant effect on green purchase behavior among female Gen Z in Jabodetabek.

Sustainability influencers—digital content creators focusing on environmental issues—occupy a unique position in Jabodetabek's social ecosystem. Many prominent Indonesian sustainability influencers are based in the region, creating content that addresses both global concerns and local Jakarta-area issues. Their hyper-local relevance (discussing specific markets, neighborhoods, or environmental events) combined with global sustainability framing creates powerful engagement opportunities.

Urban network theory suggests that in dense metropolitan areas, social influence operates through overlapping physical and digital networks (Lee & Eastin, 2021). Sustainability influencers in Jabodetabek often bridge these spheres, organizing local clean-up events, pop-up markets for sustainable products, or community gardening initiatives while documenting these activities digitally. This creates integrated influence pathways that may be particularly effective for behavior change.

We propose that in Jabodetabek's context, sustainability influencer effects are strengthened by three factors: (1) hyper-local content increasing relevance, (2) online-offline integration creating multiple touchpoints, and (3) community-building fostering normative influence (Salnikova et al., 2022). Thus:

H4: Exposure to sustainability influencers has a positive and significant effect on green purchase behavior among female Gen Z in Jabodetabek.

H5: Moderation Effect of Sustainability Influencers on The Relationship between Environmental Marketing and Green Purchase Behavior

Building on Source Credibility Theory Riley et al. (1954) and the Elaboration Likelihood Model Petty & Cacioppo (1986), we hypothesize that sustainability influencers moderate the relationship between environmental marketing and green purchase behavior. The theoretical mechanism operates through two pathways: first, influencer endorsements enhance the perceived credibility of environmental marketing messages by providing parasocial validation, thereby increasing message elaboration depth; second, influencers translate abstract marketing

claims into concrete, locally-relevant behavioral examples that reduce the perceived effort of green purchasing. In Jabodetabek's media-saturated environment, where consumers are exposed to competing commercial messages during extended commuting times, influencer-mediated environmental marketing is expected to cut through the information clutter more effectively than standalone corporate communications.

Our conceptual model integrates these four constructs within Jabodetabek's specific urban context. We posit that the metropolitan environment creates boundary conditions that amplify certain relationships while potentially constraining others (Biswas & Roy, 2015). The model acknowledges that urban consumers navigate unique spatial, social, and informational conditions that mediate marketing impacts (Moslehpour et al., 2023).

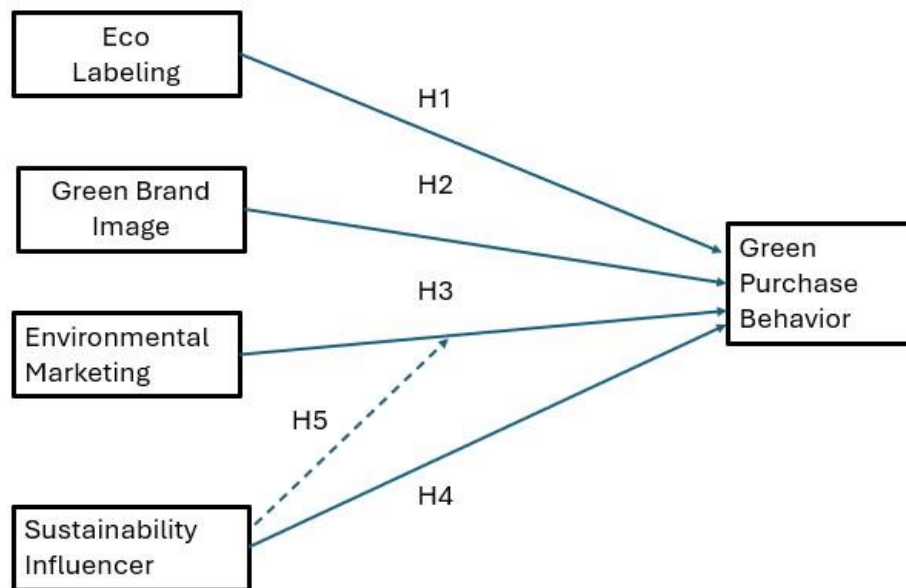


Figure 1. Research Model

Figure 1 would illustrate the four exogenous variables with paths to green purchase behavior, with the Jabodetabek urban context depicted as an overarching boundary condition influencing all relationships. This study aims to: (1) examine the direct effects of eco-labeling, green brand image, environmental marketing, and sustainability influencers on green purchase behavior among female Gen Z in Jabodetabek; (2) test the moderating role of sustainability influencers on the environmental marketing-green purchase behavior relationship; and (3) provide evidence-based recommendations for businesses, policymakers, and sustainability advocates operating in Indonesia's largest metropolitan area. The findings are expected to benefit green product marketers in tailoring their strategies to urban emerging market consumers, local government agencies in designing environmental awareness campaigns, and academic researchers in understanding how metropolitan boundary conditions modify sustainable consumption theories.

METHOD

This study employs a quantitative, cross-sectional design focused specifically on Jabodetabek. The region's administrative complexity—spanning the special capital region of Jakarta and four regencies/cities in West Java and Banten provinces—required careful sampling stratification to ensure representation across this diverse metropolitan area. We adopted a place-based research approach that acknowledges Jabodetabek not as a homogeneous entity but as an interconnected urban system with internal variations in infrastructure, socioeconomic conditions, and environmental challenges (Zhang & Dong, 2020).

The research timeframe (February–April 2025) captured normal consumption patterns outside major holiday periods that might distort green purchasing behaviors. The study received

ethical approval from the university institutional review board, with particular attention to protocols for research with young adult populations in urban Indonesia.

Our target population consisted of female residents of Jabodetabek aged 18-25 who had made at least one personal care, fashion, or food purchase in the past month (Setyawan, 2018). These product categories represent significant segments of youth consumption with growing green alternatives in the Jabodetabek market (Alamsyah et al., 2020). We excluded minors for ethical reasons and because their purchasing patterns are typically mediated by parents.

Sampling employed a stratified approach based on Jabodetabek's five constituent areas, with quotas reflecting their relative population sizes: Jakarta (40%), Tangerang (20%), Bekasi (20%), Depok (10%), and Bogor (10%) (BPS-Statistics Indonesia, 2023). Within each area, we used a multi-venue recruitment strategy including university campuses, shopping malls, residential complexes, and digital channels to capture diverse urban experiences.

Data collection utilized a mixed-mode approach: online surveys (70%) distributed through university networks and social media groups, and offline intercept surveys (30%) conducted at carefully selected locations across Jabodetabek. This mixed-mode approach balanced digital efficiency with broader population coverage, thereby mitigating potential sampling bias inherent in purely online data collection. Within each stratum, respondents were recruited through a combination of convenience and snowball sampling at predetermined venues (universities, malls, residential areas), with quotas monitored daily to ensure proportional representation across sub-regions.

The sample size of 220 exceeds both the 10-times rule ($10 \times 6 \text{ paths} = 60$) and the minimum recommended by G*Power analysis ($f^2 = 0.15$, $\alpha = 0.05$, power = 0.80, 5 predictors = 92 respondents), confirming adequate statistical power for PLS-SEM analysis. All participants provided informed consent and could opt for Bahasa Indonesia or English versions of the survey. The questionnaire was initially developed in English based on established scales, then translated into Bahasa Indonesia using a back-translation procedure by two independent bilingual researchers. A pilot test ($n = 80$) was conducted to assess face validity, content validity (reviewed by three subject-matter experts), and internal consistency. All constructs demonstrated acceptable reliability (Cronbach's $\alpha > 0.85$) and convergent validity (AVE > 0.50) in the pilot phase. To address potential common method bias arising from self-reported data, Harman's single-factor test was conducted, with the first factor explaining 34.2% of total variance (below the 50% threshold), and a full collinearity VIF assessment confirmed all values below 3.3 (Kock, 2015).

RESULTS AND DISCUSSION

Results

From 550 initial contacts, screening procedures yielded 220 complete and valid responses, representing a 69% completion rate. This sample size substantially exceeds minimum requirements for PLS-SEM analysis (Hair Jr et al., 2021). Sample characteristics reflected Jabodetabek's diversity: mean age 21.3 years, 68% university students or graduates, mixed residential types (high-rise apartments, landed housing, kos/kost), and varied transportation dependencies (private vehicles, ride-hailing, public transit).

All constructs were measured using reflective indicators adapted from established scales, with modifications for Jabodetabek's specific context (see Table 1 for psychometric properties). The translation process involved bilingual researchers familiar with Jabodetabek's linguistic variations (including Betawi influences in local Bahasa Indonesia). All measures used 7-point Likert scales (1 = strongly disagree, 7 = strongly agree).

Eco-labeling measurement (5 items, $\alpha = 0.89$) included items adapted from Chen & Chang (2013): "When shopping in Jabodetabek stores, I look for products with official eco-labels" and "Eco-labels help me choose environmentally friendly products in crowded supermarkets."

Green brand image (6 items, $\alpha = 0.91$) included contextualized items from (Huang et al., 2014): "Brands that address Jakarta's environmental problems have a better image" and "I prefer brands that are known for environmental initiatives in the Jabodetabek area."

Environmental marketing (5 items, $\alpha = 0.87$) captured both general and locally-specific exposures: "I notice environmental messages in advertisements around Jakarta" and "Social media ads about sustainability make me more aware of Jabodetabek's environmental issues."

Sustainability influencers (6 items, $\alpha = 0.92$) included locally-relevant: "I follow sustainability influencers who discuss environmental issues in Jabodetabek" and "Recommendations from local sustainability influencers affect my purchases in Jakarta area stores."

Green purchase behavior (5 items, $\alpha = 0.90$) measured both general propensity and Jabodetabek-specific behaviors based on (Yadav & Pathak, 2017): "I choose eco-friendly products when shopping in Jabodetabek malls" and "I am willing to pay more for sustainable products available in my area of Jabodetabek."

Discussion

All scales demonstrated strong psychometric properties in pilot testing ($n = 80$) and main analysis. We incorporated several Jabodetabek-specific attention-check items (e.g., recognizing local landmarks, transportation modes) to ensure respondents were genuinely familiar with the metropolitan context.

The empirical findings should be interpreted through the lens of the extended Theory of Planned Behavior. The strong effect of eco-labeling ($\beta = 0.352$) on green purchase behavior is consistent with Signaling Theory Spence (1978) and confirms that in information-overloaded urban environments like Jabodetabek, credible third-party certifications serve as crucial decision heuristics. This finding aligns with Chen & Chang (2013), while extending their work by demonstrating the amplified importance of eco-labels in metropolitan contexts where greenwashing concerns are prevalent. The significant effect of green brand image ($\beta = 0.328$) supports Social Identity Theory Tajfel et al. (2001), suggesting that Gen Z women in Jabodetabek use green brand choices as identity-signaling mechanisms in socially visible urban environments.

The near-equal effects of environmental marketing ($\beta = 0.341$) and sustainability influencers ($\beta = 0.342$) indicate that both corporate and peer-mediated sustainability communications effectively influence green purchasing, though the significant moderation effect ($\beta = 0.118$) reveals that influencer endorsements amplify marketing effectiveness. This finding addresses consumer skepticism toward green advertising by showing that influencer validation enhances message credibility. The model's explanatory power ($R^2 = 0.643$) is higher than comparable studies in other emerging markets (Pham et al., 2019): $R^2 = 0.48$; (Moslehpour et al., 2023): $R^2 = 0.52$), suggesting that the Jabodetabek metropolitan context, with its heightened environmental salience and digital connectivity, strengthens the predictive capacity of these constructs. However, the remaining 35.7% unexplained variance indicates that other factors such as price sensitivity, income level, environmental knowledge, and lifestyle variables warrant investigation in future research. Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 (Hair Jr et al., 2021). We selected PLS-SEM for its predictive orientation, ability to handle complex models, and suitability for studies emphasizing context-specific explanations rather than universal theory testing (Henseler et al., 2015).

Analysis followed the established two-step procedure: measurement model assessment followed by structural model testing. The measurement model assessment confirmed that all indicator loadings exceeded 0.70, AVE values for all constructs surpassed 0.50 (eco-labeling: 0.654; green brand image: 0.618; environmental marketing: 0.637; sustainability influencers: 0.672; green purchase behavior: 0.641), and composite reliability values exceeded 0.80 for all constructs. Discriminant validity was established through the Fornell-Larcker criterion (square root of AVE exceeding inter-construct correlations) and HTMT ratios (all below 0.85). VIF values for all predictor constructs were below 3.0, indicating no multicollinearity concerns.

The structural model revealed the following path coefficients (bootstrapping with 5,000 resamples): eco-labeling to green purchase behavior ($\beta = 0.352$, $t = 5.841$, $p < 0.001$); green brand image to green purchase behavior ($\beta = 0.328$, $t = 5.127$, $p < 0.001$); environmental marketing to green purchase behavior ($\beta = 0.341$, $t = 5.463$, $p < 0.001$); sustainability influencers to green purchase behavior ($\beta = 0.342$, $t = 5.512$, $p < 0.001$); and the moderating effect of sustainability influencers on the environmental marketing-green purchase behavior path ($\beta = 0.118$, $t = 2.674$, $p < 0.01$). All five hypotheses (H1-H5) are supported. The model demonstrates strong explanatory power ($R^2 = 0.643$), adequate predictive relevance ($Q^2 = 0.412$), acceptable model fit (SRMR = 0.062), and meaningful effect sizes (f^2 ranging from 0.098 to 0.142). Among the four direct predictors, eco-labeling exhibits the strongest effect size ($f^2 = 0.142$),

followed by sustainability influencers ($f^2 = 0.138$), environmental marketing ($f^2 = 0.128$), and green brand image ($f^2 = 0.098$). We evaluated measurement model reliability (Cronbach's α , composite reliability), convergent validity (indicator loadings, AVE), and discriminant validity (Fornell-Larcker criterion, HTMT ratios). For the structural model, we assessed collinearity (VIF values), path significance (bootstrapping with 5,000 resamples), explanatory power (R^2), predictive relevance (Q^2), and model fit (SRMR).

CONCLUSION

This study examined the determinants of green purchase behavior among female Gen Z consumers in Jabodetabek using an extended Theory of Planned Behavior framework. All four hypothesized direct effects (eco-labeling, green brand image, environmental marketing, and sustainability influencers) are empirically supported, with eco-labeling demonstrating the strongest effect ($\beta = 0.352$). The moderating role of sustainability influencers on the environmental marketing-green purchase behavior relationship (H5) is also confirmed, indicating that influencer endorsements amplify the effectiveness of corporate sustainability communications. The model explains 64.3% of variance in green purchase behavior, demonstrating strong explanatory power. Theoretically, this study contributes to the TPB literature by demonstrating that metropolitan boundary conditions (information overload, social visibility, environmental salience) modify standard behavioral pathways and by introducing sustainability influencers as a theoretically grounded moderating mechanism.

This study has several limitations. First, the cross-sectional design captures behavior at a single point in time, limiting causal inference; longitudinal designs could track changes in green purchasing patterns. Second, reliance on self-reported questionnaire data may introduce response bias despite procedural remedies. Third, the study examines only four predictors, omitting potentially important factors such as price sensitivity, income level, environmental knowledge, and product quality. Fourth, the focus on Jabodetabek limits generalizability to other Indonesian regions or emerging market metropolitan areas with different socioeconomic and cultural characteristics. Future research should employ longitudinal or experimental designs, incorporate additional variables (environmental literacy, perceived greenwashing, income constraints), extend the analysis to other Indonesian metropolitan areas (Surabaya, Medan, Bandung), and explore differences across consumer segments within Jabodetabek based on sub-regional characteristics.

ACKNOWLEDGEMENT

The author gratefully acknowledges the 220 respondents across the Jabodetabek area for their valuable participation. Appreciation is also extended to Universitas Bina Nusantara and all parties who supported the data collection and completion of this research.

AUTHOR CONTRIBUTION STATEMENT

Kuspuji Catur Bagus Wicaksono was solely responsible for the study's conceptualization, methodology, data collection, statistical analysis, interpretation of the findings, manuscript preparation, revision, and approval of the final version.

REFERENCES

- Alamsyah, D. P., Aryanto, R., Utama, I. D., Marita, L. S., & Othman, N. A. (2020). The antecedent model of green awareness customer. *Management Science Letters*, 10(11). <https://doi.org/10.5267/j.msl.2020.4.007>
- Biswas, A., & Roy, M. (2015). Leveraging factors for sustained green consumption behavior based on consumption value perceptions: Testing the structural model. *Journal of Cleaner Production*, 95. <https://doi.org/10.1016/j.jclepro.2015.02.042>
- BPS-Statistics Indonesia. (2023). *Statistical yearbook of Indonesia 2023*. Badan Pusat Statistik.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39(5). <https://doi.org/10.1037/0022-3514.39.5.752>
- Chen, Y. S., & Chang, C. H. (2013). Towards green trust: The influences of green perceived quality,

- green perceived risk, and green satisfaction. *Management Decision*, 51(1). <https://doi.org/10.1108/00251741311291319>
- Djafarova, E., & Bowes, T. (2021). 'Instagram made Me buy it': Generation Z impulse purchases in fashion industry. *Journal of Retailing and Consumer Services*, 59, 102345.
- Ghazali, E. M., Nguyen, B., Mutum, D. S., & Yap, S.-F. (2019). Pro-Environmental Behaviours and Value-Belief-Norm Theory: Assessing Unobserved Heterogeneity of Two Ethnic Groups. *Sustainability*, 11(12). <https://doi.org/10.3390/su11123237>
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Huang, Y. C., Yang, M., & Wang, Y. C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence and Planning*, 32(3). <https://doi.org/10.1108/MIP-10-2012-0105>
- Kautish, P., Paul, J., & Sharma, R. (2019). The moderating influence of environmental consciousness and recycling intentions on green purchase behavior. *Journal of Cleaner Production*, 228. <https://doi.org/10.1016/j.jclepro.2019.04.389>
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of E-Collaboration (Ijec)*, 11(4), 1–10. <https://doi.org/10.4018/ijec.2015100101>
- Kompas Research & Development. (2023). *Digital consumer behavior in urban Indonesia*. Kompas Gramedia.
- Lee, J. A., & Eastin, M. S. (2021). Perceived authenticity of social media influencers: scale development and validation. *Journal of Research in Interactive Marketing*, 15(4). <https://doi.org/10.1108/JRIM-12-2020-0253>
- Liu, M. T., Liu, Y., & Mo, Z. (2020). Moral norm is the key: An extension of the theory of planned behaviour (TPB) on Chinese consumers' green purchase intention. *Asia Pacific Journal of Marketing and Logistics*, 32(8). <https://doi.org/10.1108/APJML-05-2019-0285>
- Maichum, K., Parichatnon, S., & Peng, K. C. (2016). Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability (Switzerland)*, 8(10). <https://doi.org/10.3390/su8101077>
- Moslehpour, M., Chau, K. Y., Du, L., Qiu, R., Lin, C. Y., & Batbayar, B. (2023). Predictors of green purchase intention toward eco-innovation and green products: Evidence from Taiwan. *Economic Research-Ekonomska Istrazivanja*, 36(2). <https://doi.org/10.1080/1331677X.2022.2121934>
- Nguyen, H. V., Nguyen, C. H., & Hoang, T. T. B. (2019). Green consumption: Closing the intention-behavior gap. *Sustainable Development*, 27(1). <https://doi.org/10.1002/sd.1875>
- Panda, T. K., Kumar, A., Jakhar, S., Luthra, S., Garza-Reyes, J. A., Kazancoglu, I., & Nayak, S. S. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner Production*, 243. <https://doi.org/10.1016/j.jclepro.2019.118575>
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology*, 19(C). [https://doi.org/10.1016/S0065-2601\(08\)60214-2](https://doi.org/10.1016/S0065-2601(08)60214-2)
- Pham, T. H., Nguyen, T. N., Phan, T. T. H., & Nguyen, N. T. (2019). Evaluating the purchase behaviour of organic food by young consumers in an emerging market economy. *Journal of Strategic Marketing*, 27(6). <https://doi.org/10.1080/0965254X.2018.1447984>
- Rausch, T. M., & Kopplin, C. S. (2021). Bridge the gap: Consumers' purchase intention and behavior regarding sustainable clothing. *Journal of Cleaner Production*, 278. <https://doi.org/10.1016/j.jclepro.2020.123882>
- Riley, M. W., Hovland, C. I., Janis, I. L., & Kelley, H. H. (1954). Communication and Persuasion: Psychological Studies of Opinion Change. *American Sociological Review*, 19(3). <https://doi.org/10.2307/2087772>
- Salnikova, E., Strizhakova, Y., & Coulter, R. A. (2022). Engaging Consumers with Environmental Sustainability Initiatives: Consumer Global-Local Identity and Global Brand Messaging. *Journal of Marketing Research*, 59(5). <https://doi.org/10.1177/00222437221078522>
- Setyawan. (2018). Green product buying intentions among young consumers: extending the

- application of theory of planned behavior. *Probl Perspect Manag*, 145–154.
- Spence, M. (1978). Job market signaling. In *Uncertainty in economics* (pp. 281–306). Elsevier.
- Tajfel, H., Turner, J., Austin, W. G., & Worchel, S. (2001). An integrative theory of intergroup conflict. *Intergroup Relations: Essential Readings*, 94–109.
- Vandenbosch, L., Fardouly, J., & Tiggemann, M. (2022). Social media and body image: Recent trends and future directions. In *Current Opinion in Psychology* (Vol. 45). <https://doi.org/10.1016/j.copsyc.2021.12.002>
- Varshneya, G., Pandey, S. K., & Das, G. (2017). Impact of Social Influence and Green Consumption Values on Purchase Intention of Organic Clothing: A Study on Collectivist Developing Economy. *Global Business Review*, 18(2). <https://doi.org/10.1177/0972150916668620>
- Wang, T.-L., Pramuja, R., Pitlam, A. R., & Abdulsalam, T. A. (2025). Perceived Greenwashing and Consumer Responses in Hospitality. *Advances in Tourism Studies*, 3(3). <https://doi.org/10.53893/ats.v3i3.75>
- 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. <https://doi.org/10.1016/j.ecolecon.2016.12.019>
- Zhang, X., & Dong, F. (2020). Why do consumers make green purchase decisions? Insights from a systematic review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Number 18). <https://doi.org/10.3390/ijerph17186607>