

Instagram Green Marketing and Sustainable Purchase Behavior among Generation Z: The Moderating Role of Digital FOMO in Makassar

Wahyu Ramadhan^{1,*}, Mariah¹, Asriadi Rasyid²

¹ *Departemen Management, Faculty Economics and Business, Nobel Indonesia Institute, Makassar, Indonesia.*

² *Departemen Information Technology Education, Faculty Industrial Technology, Nobel Indonesia Institute, Makassar, Indonesia.*

*Corresponding author. Email: Wahyurma30@gmail.com

ABSTRACT

This study examines the influence of Green Marketing on Instagram on Sustainable Purchasing Behavior among Generation Z consumers in Makassar, taking into account the role of Digital Fear of Missing Out (FOMO). A quantitative approach using a cross-sectional survey was employed, with data collected from 100 Generation Z Instagram users in Makassar. The data were then analyzed using SEM-PLS. The results indicate that Green Marketing on Instagram has a positive and significant influence on Sustainable Purchasing Behavior. Digital FOMO also positively influences sustainable purchasing behavior, but does not moderate the relationship between Instagram Green Marketing and sustainable purchasing behavior. This suggests that while Instagram Green Marketing and Digital FOMO independently influence sustainable purchasing, FOMO does not amplify or weaken the effects of green marketing. These findings highlight that Generation Z's sustainable purchasing is primarily driven by genuine environmental awareness, not social anxiety. This study provides insights for marketers to focus on authentic and informative green marketing content to promote sustainable consumption among young people who have grown up in the digital age.

Keywords: *Digital FOMO, Generation Z, Instagram Green Marketing, Sustainability Marketing, Sustainable Purchase Behavior.*

1. INTRODUCTION

Environmental sustainability has become one of the most urgent global issues of this decade. Factors such as climate change, waste buildup, and patterns of unsustainable consumption have driven governments and businesses to incorporate environmental accountability into their strategic frameworks. (Aurelia Halim & Siswantini, 2025; Nowacki et al., 2023). Within the marketing domain, this shift manifests as green marketing the practice of promoting products and brands based on their eco-friendly attributes and sustainable business processes (Radithya & Rosidah, 2025; Soegesti et al., 2024). Growing evidence suggests that contemporary consumers, particularly younger demographics, are increasingly receptive to sustainability-oriented value propositions (Di Pillo et al., 2025).

The rapid growth of digital technologies and social media has significantly transformed the field of marketing communication. Platform like Instagram have progressed from simple social networking site to influential visual marketing environments that influence how consumers view products, their choices, and their buying behaviors (Mandasari et al., 2024). In Indonesia, Instagram remains the dominant platform among Generation Z users, who actively engage with visually rich lifestyle content, influencer endorsements, and real-time trend narratives (Aurelia Halim & Siswantini, 2025). This demographic represents a critical market segment for sustainable products, as they demonstrate heightened environmental consciousness coupled with strong digital nativity.

Current research indicates that green marketing efforts on social media positively affect consumers perceptions and intentions concerning eco-friendly products (Nowacki et al., 2023). Most studies have relied on intention-based proxies rather than reported behavior, leaving the mechanisms that link green marketing exposure to tangible sustainable purchasing insufficiently understood (Di Pillo et al., 2025; Radithya & Rosidah, 2025). This gap underscores the need for research investigating how social media green marketing translates into sustainable purchase behavior among digitally native consumers.

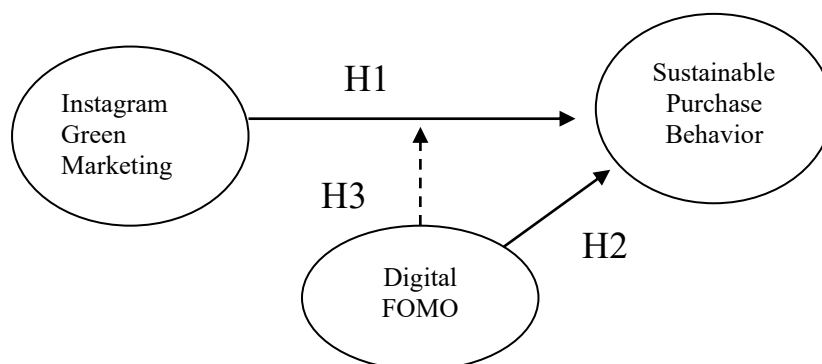
Within digital environments, consumers' responses to marketing initiatives rely on their own psychological qualities. One such disposition is the Fear of Missing Out (FOMO which is a common concern about missing out on

social activities, current trends, or rewarding experiences that others find enjoyable. (Przybylski et al., 2013). In the context of digital consumer behavior, FOMO has increasingly been viewed as an important psychological factor, especially among Generation Z, whose social interaction, identity formation, and need for social recognition are strongly connected to online platforms. At the same time, sustainability has also become part of young consumers' digital lifestyle. Eco-friendly products and green consumption are no longer seen only as expressions of environmental concern, but are also increasingly presented as socially valued lifestyle symbols, particularly within Instagram communities (Jain, 2024). In this context, Digital FOMO may function as a boundary condition that determines the efficacy of green marketing, consumers exhibiting high FOMO may process and act upon sustainability cues more intensively when such cues are perceived as trending or socially endorsed, whereas low-FOMO consumers may remain indifferent to identical stimuli (Bläse et al., 2024). Despite its theoretical relevance, empirical research examining FOMO as a moderator in the relationship between eco-friendly marketing and sustainable consumption remains scarce; however, the direct effects of FOMO also warrant further investigation.

Using the Stimulus-Organism-Response (S-O-R) framework as its theoretical basis, this study positions Instagram green marketing as the external stimulus that consumers encounter in the digital environment. Digital FOMO is treated as the internal organismic condition that shapes consumers' cognitive and emotional responses, while sustainable purchase behavior is viewed as the final behavioral outcome of this process. Although previous studies in Indonesia have examined how social media marketing influences Generation Z's purchase intentions, limited attention has been given to how Instagram-based green marketing may shape actual sustainable purchase behavior through psychological mechanisms such as digital FOMO. (Markiones et al., 2023; Mandasari et al., 2024) the moderating role of psychological boundary conditions specifically within green consumption contexts and in understudied urban contexts such as Makassar remains largely unexplored. Furthermore, few studies have employed actual purchase behavior as the endogenous variable, preferring intention-based proxies that may overestimate true market responsiveness.

To address this gap, this study examines the influence of Green Marketing on Instagram on Sustainable Purchasing Behavior among Generation Z consumers in Makassar, Indonesia. Specifically, this study investigates whether Digital FOMO acts as a moderator variable in the strength of this relationship, while also considering the possibility that Digital FOMO has a direct impact on Sustainable Purchasing Behavior. Based on the discussion above, the following hypotheses are proposed (see Figure 1):

Figure 1. Hypotheses



H1: Instagram Green Marketing positively influences Sustainable Purchase Behavior.

H2: Digital FOMO positively influences Sustainable Purchase Behavior.

H3: Digital FOMO positively moderates the relationship between Instagram Green Marketing and Sustainable Purchase Behavior.

This research applies a quantitative design, with data analysis conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS. The use of this approach is in line with methodological practices commonly adopted in comparable studies examining Generation Z consumer behavior (Radithya & Rosidah, 2025). Data were collected from Generation Z respondents in Makassar through a structured questionnaire. Theoretically, this research extends the application of FOMO from impulsive and investment domains into sustainable consumption, elucidating the psychological boundary conditions of green marketing effectiveness. Practically, the findings offer actionable insights for marketers seeking to optimize Instagram-based sustainability campaigns for digitally native Indonesian youth.

2. RESEARCH METHODS

Adopting a quantitative, cross-sectional approach, this study examines the influence of Instagram Green Marketing (IGM) on Generation Z's Sustainable Purchase Behavior (SPB) in Makassar, with Digital FOMO (DFOMO) conceptualized as a potential moderator. Data collection was conducted using a self-administered online questionnaire, employing purposive sampling to reach the target respondents. Responses were measured using a Likert scale, and the collected data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software. The reliability and validity of the constructs were evaluated using Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE), confirming that all constructs met the necessary criteria for structural model analysis.

3. RESULT AND DISCUSSION

3.1. Respondent Profile

This study collected responses from 100 participants who met the predetermined criteria, namely Generation Z individuals aged 18 to 29 years who actively use Instagram. The demographic characteristics of the respondents are presented in Table 1.

Table 1. Respondent Identity

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	42	42
Gender	Female	58	58
Gender	Total	100	100
Age	18 years	5	5
Age	19 years	7	7
Age	20 years	15	15
Age	21 years	25	25
Age	22 years	18	18
Age	23 years	13	13
Age	24 years	6	6
Age	25 years	4	4
Age	26 years	4	4
Age	27 years	1	1
Age	29 years	1	1
Age	Total	100	100

Table 1 indicates that female respondents made up the largest proportion of the sample, representing 58%, while male respondents comprised the remaining 42%. Regarding age, respondents aged 21 years formed the highest percentage at 25%, followed by those aged 22 years at 18% and 20 years at 15%. Overall, respondents aged 20 to 23 years accounted for 71% of the sample, which is consistent with the study context because individuals in this age group are generally active users of social media, especially Instagram, and are more likely to encounter environmental messages through digital content. Therefore, the demographic profile of the respondents offers an appropriate basis for analyzing how Instagram green marketing influences sustainable purchase behavior among young consumers.

3.2. Measurement Model Evaluation

Before examining the structural relationships, the measurement model was assessed to confirm the reliability and convergent validity of each construct. This evaluation involved Cronbach's alpha, composite reliability values (ρ_a and ρ_c), and the Average Variance Extracted (AVE). The findings of this assessment are shown in Table 2.

Table 2. Validity and Reliability

Variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)	Result
IGM	0.754	0.787	0.854	0.661	Valid
SPB	0.864	0.888	0.901	0.647	Valid
DFOMO	0.863	0.913	0.913	0.778	Valid

As shown in Table 2, all constructs achieved acceptable internal consistency reliability. Cronbach's alpha values ranged between 0.754 and 0.864, while composite reliability (rho_c) values ranged from 0.854 to 0.913, exceeding the recommended minimum threshold of 0.70 (Dörnyei & Griffee, 2022). The rho_a values also remained within the acceptable range, further supporting the reliability of the reflective measurement model (Dirsehan & Henseler, 2023).

Convergent validity was evaluated using the Average Variance Extracted (AVE). The AVE values across all constructs ranged from 0.647 to 0.778, which were above the minimum criterion of 0.50. This indicates that each construct was able to explain more than half of the variance in its respective indicators. Overall, these findings confirm that Instagram Green Marketing (IGM), Sustainable Purchase Behavior (SPB), and Digital FOMO (DFOMO) met the required standards for reliability and convergent validity, making them appropriate for further structural model analysis.

3.3. Hypothesis Testing Results

Following the confirmation of the measurement model's reliability and validity, the structural model was examined to test the hypothesized relationships. Path coefficient significance was assessed using bootstrapping, with relationships considered significant when the t-value exceeded 1.96 and the p-value was lower than 0.05 (Dirsehan & Henseler, 2023). The hypothesis testing results are reported in Table 3.

Table 3. Hypothesis Testing Result

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Result
IGM -> SPB	0.396	0.424	0.089	4.465	0.000	Supported
DFOMO -> SPB	0.242	0.252	0.117	2.067	0.039	Supported
DFOMO x IGM -> SPB	0.064	0.044	0.131	0.486	0.627	Not supported

The findings show that Instagram Green Marketing (IGM) significantly and positively influences Sustainable Purchase Behavior (SPB), as indicated by a path coefficient of 0.396, a t-value of 4.465, and a p-value below 0.001. Therefore, H1 is supported. This result suggests that environmentally focused marketing content on social media can enhance consumers' awareness of sustainability issues and motivate more responsible purchasing behavior among young consumers (Aurelia Halim & Siswantini, 2025; Nowacki et al., 2023). This result is also consistent with the wider view that consumers' exposure to sustainability-oriented content can encourage a shift toward more environmentally responsible purchasing decisions (White et al., 2019).

Digital FOMO (DFOMO) also showed a positive and statistically significant effect on Sustainable Purchase Behavior (SPB), with a coefficient of 0.242, a t-value of 2.067, and a p-value of 0.039. Thus, H2 is supported. This finding is in line with previous studies indicating that fear of missing out can influence consumers' purchasing tendencies within social media-based environments (Flecha-Ortiz et al., 2023; Mahmud et al., 2023) and that FOMO can act as a powerful driver of consumption behavior among digitally connected consumers (Lu & Sinha, 2024).

In contrast, the moderating effect of DFOMO on the relationship between IGM and SPB was not statistically significant ($\beta = 0.064$; $t = 0.486$; $p = 0.627$), leading to the rejection of H3. This suggests that Digital FOMO does not strengthen or weaken the influence of Instagram green marketing on sustainable purchase behavior, but instead functions as an independent predictor. A plausible explanation is that FOMO tends to be associated with impulsive and non-sustainable buying patterns rather than deliberate green consumption (Bläse et al., 2024), meaning that the two mechanisms operate through separate behavioral pathways. Sustainable purchasing among Generation Z appears to be driven more by genuine environmental awareness than by the anxiety of missing out (White et al., 2019).

4. CONCLUSION

This study investigated the effects of Instagram Green Marketing (IGM) and Digital FOMO (DFOMO) on Sustainable Purchase Behavior (SPB) among Generation Z. It also examined whether Digital FOMO moderates the relationship between Instagram green marketing and sustainable purchasing behavior. Based on data collected from 100 Generation Z respondents aged 18 to 29 who actively use Instagram, the study produced several key findings.

First, Instagram Green Marketing was shown to have a positive and significant influence on Sustainable Purchase Behavior. This suggests that environmentally oriented marketing content shared through Instagram can contribute to the formation of more responsible purchasing decisions among young consumers. When Generation Z consumers are more frequently exposed to credible, relevant, and engaging green marketing messages, they are more likely to develop purchasing behavior that supports sustainable consumption.

Second, Digital FOMO was also found to have a positive and significant effect on Sustainable Purchase Behavior. This finding indicates that fear of missing out, which is closely associated with Generation Z's high level of social media involvement, may independently encourage purchasing behavior. The desire not to be excluded from social trends, shared experiences, or values promoted within online communities can motivate young consumers to engage in sustainable consumption when such behavior becomes socially visible or desirable.

Third, however, the results also showed that Digital FOMO did not significantly moderate the relationship between Instagram Green Marketing and Sustainable Purchase Behavior. This means that although both IGM and DFOMO individually contribute to sustainable purchasing, DFOMO does not strengthen or weaken the influence of green marketing content on SPB. Therefore, sustainable purchasing decisions among Generation Z appear to be influenced more directly by exposure to green marketing and digital social pressure as separate mechanisms, rather than through an interaction between the two. This may also suggest that sustainable purchasing is not merely driven by fear of social exclusion, but may involve a more deliberate response to environmental information and awareness.

Overall, these findings enrich the understanding of how digital marketing exposure and social-psychological factors shape sustainable consumption among Generation Z. From a practical perspective, the results suggest that marketers, brands, and environmental campaigners should prioritize authentic, credible, and informative green marketing content rather than relying heavily on FOMO-based promotional strategies. Strengthening genuine environmental awareness may be more effective in encouraging long-term and meaningful sustainable purchasing behavior.

This study has several limitations. The sample size was limited to 100 respondents, and the study focused only on Instagram users, which may restrict the generalizability of the findings. Future studies are encouraged to involve larger and more diverse samples, examine other social media platforms, and include complementary behavioral measures such as purchase records or observational data to validate self-reported Sustainable Purchase Behavior. Future research may also consider additional variables, such as environmental literacy, green trust, and perceived consumer effectiveness, to provide a broader understanding of sustainable purchase behavior among Generation Z.

REFERENCES

- A. J. (2024). The Impact of Influence Marketing on Gen Z Consumer Behaviour. *International Journal For Multidisciplinary Research*, 6(5), 1–17. <https://doi.org/10.36948/ijfmr.2024.v06i05.28252>
- Aurelia Halim, N., & Siswantini, S. (2025). The influence of green personal products campaign on social media towards gen z environmental literacy. *IOP Conference Series: Earth and Environmental Science*, 1489(1). <https://doi.org/10.1088/1755-1315/1489/1/012049>
- Bläse, R., Filser, M., Kraus, S., Puumalainen, K., & Moog, P. (2024). Non-sustainable buying behavior: How the fear of missing out drives purchase intentions in the fast fashion industry. *Business Strategy and the Environment*, 33(2), 626–641. <https://doi.org/10.1002/bse.3509>
- Di Pillo, F., Palombi, G., & Strazzullo, S. (2025). Does Greenwashing Wash Away Gen Z's Green Purchase Intention? *Business Strategy and the Environment*, 34(7), 9081–9092. <https://doi.org/10.1002/bse.70064>
- Dirsehan, T., & Henseler, J. (2023). Modeling indices using partial least squares: How to determine the optimum weights? *Quality and Quantity*, 57, 521–535. <https://doi.org/10.1007/s11135-022-01515-5>
- Dörnyei, Z., & Griffee, D. T. (2022). Research Methods in Applied Linguistics. *TESOL Journal*, 1(1), 181–183. <https://doi.org/10.5054/tj.2010.215611>

- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. In *International Strategic Management Review* (Vol. 3, Numbers 1–2). Holy Spirit University of Kaslik. <https://doi.org/10.1016/j.ism.2015.04.001>
- Mandasari, N. F., Ashdaq, M., Radjab, E., Nadir, M., & Mulatsih, L. S. (2024). Influence of Brand Image on Brand Loyalty Using Brand Trust and Social Media Engagement. *Jurnal Aplikasi Manajemen*, 22(3), 839–850. <https://doi.org/10.21776/ub.jam.2024.022.03.15>
- Markiones, S. A., Buyung Romadhoni, & Andi Mappatempo. (2023). The Influence of Social Media Influencer and Electronic Word of Mouth Mediated By Brand Image on Purchase Intention at Eternamoore Beauty Clinic Makassar. *Dinasti International Journal of Digital Business Management*, 4(5), 945–953. <https://doi.org/10.31933/dijdbm.v4i5.2008>
- Nowacki, M., Kowalczyk-Anioł, J., & Chawla, Y. (2023). Gen Z's Attitude towards Green Image Destinations, Green Tourism and Behavioural Intention Regarding Green Holiday Destination Choice: A Study in Poland and India. *Sustainability (Switzerland)*, 15(10). <https://doi.org/10.3390/su15107860>
- Przybylski, A. K., Murayama, K., Dehaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Radithya, T., & Rosidah, R. (2025). How does Gen Z choose their fashion brand: The role of Green Marketing and Brand Image in influencing the intention to buy. *IOP Conference Series: Earth and Environmental Science*, 1488(1). <https://doi.org/10.1088/1755-1315/1488/1/012078>
- Soegesti, D. G., Sari, D., & Oesman, Y. M. (2024). The Effect Of Green Marketing Mix On Purchase Intention Of Ecoprint Fashion With Environmental Awareness As A Mediating Variable In Generation Z On Social Media. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis*, 12(4), 4225–4236. <https://doi.org/10.37676/ekombis.v12i4.7089>
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>
- Zhuo, Z., Ren, Z., & Zhu, Z. (2022). Attitude-Behavior Gap in Green Consumption Behavior: A Review. *Journal of Economics, Management and Trade*, 28(12), 12–28. <https://doi.org/10.9734/jemt/2022/v28i121065>