

## **GREEN MARKETING IN THE DIGITAL AGE: EXAMINING THE INTERPLAY BETWEEN ENVIRONMENTAL CONCERN, GREEN SOCIAL MEDIA EXPOSURE, AND ATTITUDE TOWARD GREEN PRODUCTS**

**Desak Anggi Pramayanti<sup>1</sup>, Ni Putu Rias Sintya Dewi<sup>2</sup>, Made Setini<sup>3</sup>**

Faculty of Economics and Business, Warmadewa University

Email: setini@warmadewa.ac.id

### **ABSTRACT**

Rapid advances in digital technology have fundamentally reshaped how Micro, Small, and Medium Enterprises (MSMEs) promote their offerings, particularly in adopting green marketing approaches. This study investigates the extent to which Environmental Concern (EC) and Green Social Media Marketing Exposure (GSMME) contribute to Environmental Commitment (ECM), with Attitude toward Green Product (ATGP) serving as a mediating variable. A quantitative research design was applied, gathering data from 200 millennial respondents in Indonesia who actively engage with social media and regularly purchase green MSME products. The data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 software. Findings reveal that both EC and GSMME yield positive and statistically significant effects on ATGP. In addition, ATGP was found to substantially affect ECM and to act as a partial mediator linking the two exogenous variables to the outcome variable. These outcomes are consistent with the Theory of Planned Behavior (Ajzen, 1991), which holds that favorable attitudes function as a critical bridge connecting environmental awareness with concrete pro-environmental conduct. From a practical standpoint, the study highlights the need for sustainability-driven digital communication strategies, targeted consumer education, and meaningful social media engagement among millennial MSMEs as pathways to strengthening environmental commitment and improving green brand positioning in today's competitive digital landscape.

**Key words:** Environmental Concern; Green Social Media Marketing; Attitude toward Green Product; Environmental Commitment; Millennial MSMEs.

### **INTRODUCTION**

Growing environmental awareness has increasingly influenced purchasing decisions, compelling MSMEs to reconsider their marketing approaches in light of sustainability demands. As digital natives, millennials exhibit a notably strong ecological orientation and tend to gravitate toward brands that embody environmentally responsible values and social accountability (Ng & Parry, 2016; Kim et al., 2023). This emerging trend creates substantial opportunities for MSMEs to harness digital green marketing as a means of reinforcing their eco-friendly brand identity and boosting consumer purchase intention for green products. Within the Indonesian context, one of the most pressing obstacles faced by millennial MSMEs is effectively conveying sustainability-oriented messages in an increasingly crowded digital marketplace. Given that social media now functions as the dominant channel for information seeking and purchasing decisions among millennial consumers (Statista, 2024), Green Social Media Marketing Exposure (GSMME) holds considerable promise in shaping how consumers perceive and evaluate green products. When green marketing messages are crafted with authenticity and substance, they can foster deeper emotional bonds between consumers and brands while simultaneously promoting environmentally conscious consumption behavior (Chen & Chang, 2012; Algharabat et al., 2020).

Apart from digital media exposure, Environmental Concern (EC) plays a significant role in determining how consumers respond to sustainability-related communications. EC captures the degree to which individuals recognize the importance of environmental issues and are prepared to take action to mitigate ecological harm (Dunlap et al., 2000). Schultz (2001) further characterizes environmental concern as an internalized value system that motivates ecologically responsible conduct. Research consistently shows that consumers scoring high on environmental concern are more inclined to develop favorable attitudes toward green products and to patronize businesses committed to sustainable practices (Mostafa, 2007; Zhao et al., 2023). In the millennial MSME landscape, leveraging EC as part of brand positioning may serve as a meaningful competitive differentiator in the digital economy.

Operationally, GSMME encompasses the degree to which consumers encounter green marketing content across digital platforms including Instagram, TikTok, and YouTube (Kim & Ko, 2012; Schivinski & Dąbrowski, 2016). Such exposure has been shown to enhance consumer knowledge, raise environmental awareness, and cultivate more favorable assessments of eco-friendly products (Rahman et al., 2022). Given millennials' extensive presence on social media, GSMME constitutes a powerful determinant of green product attitudes. These attitudes are conceptualized as Attitude toward Green Product (ATGP), which refers to consumers' overall appraisal of the value and utility associated

with environmentally friendly products (Ajzen, 1991; Spears & Singh, 2004). Within the Theory of Planned Behavior (TPB), attitudes are regarded as the foremost driver of behavioral intention and subsequent action. Accordingly, ATGP operates as a mediating construct that channels the influence of both environmental concern and green marketing stimuli on actual green consumption decisions (Biswas & Roy, 2015).

Environmental Commitment (ECM) captures an individual's predisposition to translate sustainability values into tangible behavioral outcomes, including the purchase of eco-friendly products and active support for environmentally oriented enterprises (Chen & Chang, 2012). Prior research indicates that consumers who hold more positive evaluations of green products are correspondingly more likely to exhibit higher levels of environmental commitment (Ng & Parry, 2016; Kim et al., 2023). The theoretical grounding of this study draws on the Theory of Planned Behavior (Ajzen, 1991), which posits that human behavior is fundamentally shaped by three interrelated antecedents: attitude toward the behavior, subjective norms, and perceived behavioral control. Within this framework, ATGP is positioned as the mediating mechanism connecting EC and GSMME to Environmental Commitment.

Drawing on the existing theoretical foundation and empirical literature, this study aims to examine how EC and GSMME shape ATGP and subsequently drive ECM among millennial MSME consumers. The primary contribution of this research lies in constructing an integrated attitude-mediated model of green consumer behavior that simultaneously incorporates both EC and GSMME, with particular attention to the Indonesian millennial MSME segment — a context that has received limited scholarly attention in green consumer behavior research. The research hypotheses are formulated as follows: EC positively affects ATGP; GSMME positively affects ATGP; ATGP positively affects ECM; and ATGP mediates the relationship between EC and ECM as well as between GSMME and ECM.

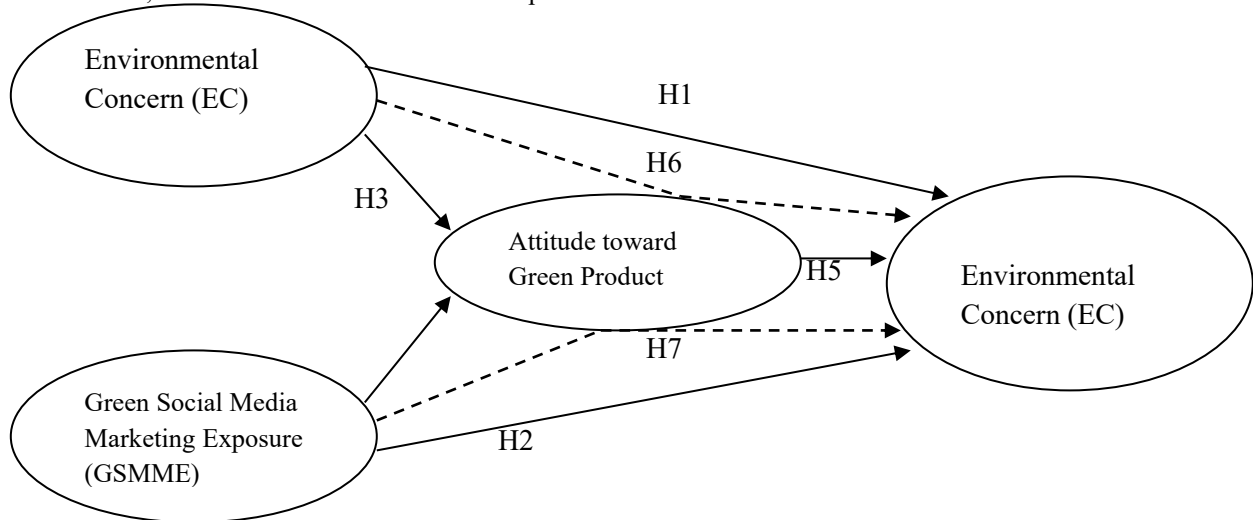


Figure 1. Research Framework

## METHOD

### Research Design

This research adopts a quantitative approach combined with a descriptive survey design to examine the causal mechanisms through which EC and GSMME influence ECM, with ATGP serving as an intervening variable. The choice of this methodological framework aligns with the study's objective of empirically testing the directional relationships among constructs derived from the conceptual model, which is anchored in the Theory of Planned Behavior (Ajzen, 1991).

### Population and Sample

The target population for this study comprises millennial MSME owners and consumers in Indonesia, specifically individuals aged 25–40 years who regularly use social media and participate in green product marketing or consumption. A purposive sampling strategy was employed, with participants selected based on the following eligibility criteria:

1. Respondents are between 25–40 years of age (millennial generation category).
2. Active social media users (Instagram, TikTok, or YouTube) for a minimum of 1 hour per day.
3. Have either purchased or supported environmentally friendly products from local small and medium enterprises at least one time over the past six months.

Sample size adequacy was assessed using the guideline proposed by Hair et al. (2010), which stipulates a minimum of 10 observations per indicator included in the structural model. With 16 indicators in total, a minimum of 160 respondents was required. To further strengthen the reliability of the findings, a final sample of 200 respondents was targeted.

**Type and Source of Data**

Primary data for this study were gathered by distributing a structured online questionnaire via Google Form to eligible respondents. All measurement items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Secondary data were also incorporated, drawing from peer-reviewed academic journals, published literature, and prior empirical studies pertaining to green marketing practices, millennial consumer behavior, and digital marketing strategies within the MSME sector.

<i>Variable</i>	<i>Operational Definition</i>	<i>Indicator</i>	<i>Skala</i>	<i>Source</i>
<b><i>Environmental Concern (X1)</i></b>	The level of individual concern about environmental issues and their willingness to take action to protect the environment.	1. Consider environmental issues important. 2. Be willing to change habits to reduce environmental impact. 3. Feel a sense of responsibility toward nature. 4. Support eco-friendly products.	Likert 1–5	Dunlap et al. (2000); Schultz (2001)
<b><i>Green Social Media Marketing Exposure (X2)</i></b>	Individuals' level of exposure to green marketing messages and campaigns on social media.	1. Frequency of viewing green content. 2. Interaction with green brand content. 3. Appeal of green content. 4. Trust in green content.	Likert 1–5	Kim & Ko (2012); Schivinski & Dąbrowski (2016)
<b><i>Attitude toward Green Product (M)</i></b>	An individual's positive or negative evaluation of green products.	1. Green products are a good idea. 2. Green products are beneficial. 3. I like the concept of green products. 4. I have a positive view of green products.	Likert 1–5	Ajzen (1991); Spears & Singh (2004)
<b><i>Environmental Commitment (Y)</i></b>	An individual's tendency to behave in an environmentally friendly manner and commit to such practices.	1. Intend to buy green products. 2. Consider environmental factors when making a purchase. 3. Recommend green products. 4. Support eco-friendly small and medium-sized enterprises (SMEs).	Likert 1–5	Chen & Chang (2012); Zhao et al. (2023)

**RESULTS AND DISCUSSION**

**Results of the Structural Model Analysis (Inner Model)**

The dataset comprised responses from 200 millennial MSME operators and consumers who were active social media users engaged in green product consumption. Statistical evaluation was performed using Partial Least Squares – Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software.

The evaluation is conducted in two stages:

1. **Outer Model:** shows all valid indicators (loading factor > 0,70; AVE > 0,5; dan CR > 0,7).
2. **Inner Model:** testing the relationships between variables and the mediating effects.

**Hypothesis Test Results**

Hypothesis	Path of Influence	Path Coefficient ( $\beta$ )	t- statistic	p- value	Hasil
H1	Environmental Concern $\rightarrow$ Attitude toward Green Product	0.312	4.887	0.000	Accepted
H2	Green Social Media Marketing Exposure $\rightarrow$ Attitude toward Green Product	0.475	7.263	0.000	Accepted
H3	Attitude toward Green Product $\rightarrow$ Environmental Commitment	0.529	9.011	0.000	Accepted
H4	Environmental Concern $\rightarrow$ Environmental Commitment (direct effect)	0.184	2.972	0.003	Accepted
H5	Green Social Media Marketing Exposure $\rightarrow$ Environmental Commitment (direct effect)	0.142	2.211	0.027	Accepted
H6	Environmental Concern $\rightarrow$ Attitude toward Green Product $\rightarrow$ Environmental Commitment	0.165	3.844	0.000	Partial Mediation
H7	Green Social Media Marketing Exposure $\rightarrow$ Attitude toward Green Product $\rightarrow$ Environmental Commitment	0.252	5.278	0.000	Partial Mediation

The coefficient of determination ( $R^2$ ) for ATGP reached 0.627, signifying that EC and GSMME jointly account for 62.7% of the variance in green product attitudes. The  $R^2$  for ECM was 0.689, demonstrating that the model successfully explains 68.9% of the variability in pro-environmental behavioral commitment among millennial consumers.

**H1: Environmental Awareness positively influences Attitudes towards Eco-Friendly Products**

Statistical results confirm that EC exerts a significant positive influence on ATGP ( $\beta = 0.312$ ;  $p < 0.01$ ), supporting the theoretical positions advanced by Dunlap et al. (2000) and Schultz (2001), who argue that individuals with a heightened sense of environmental awareness are predisposed to perceive eco-friendly products as morally and socially valuable.

For millennial MSMEs, these results underscore the strategic importance of cultivating eco-awareness as a foundational element in building positive consumer perceptions toward locally produced green brands.

**H2: Exposure to Eco-Friendly Social Media Marketing positively impacts Attitudes towards Eco-Friendly Products**

GSMME emerged as a highly significant predictor of ATGP ( $\beta = 0.475$ ;  $p < 0.001$ ), indicating that greater exposure to green content on digital platforms substantially elevates consumer favorability toward eco-friendly products. This result corroborates the conclusions of Kim & Ko (2012) and Rahman et al. (2022), who demonstrated that sustainability-themed digital campaigns foster deeper emotional and cognitive engagement between millennial consumers and green brands.

Content that is genuine, informative, and co-created by users has demonstrated particular effectiveness in bolstering the perceived credibility of green messaging within social media ecosystems.

**H3: Attitude toward Green Products has a positive effect on Environmental Commitment**

A positive evaluation of eco-friendly products was found to significantly predict ECM ( $\beta = 0.529$ ;  $p < 0.001$ ), reinforcing the central proposition of the Theory of Planned Behavior (Ajzen, 1991) that attitudinal orientations are the most proximal determinants of behavioral action. Millennial consumers who hold favorable views toward green products are substantially more likely to support sustainability-driven MSMEs and to adopt environmentally responsible consumption practices (Joshi & Rahman, 2019).

**H4 & H5: The Direct Effects of EC and GSMME on Environmental Commitment**

Both EC and GSMME were found to exert direct effects on ECM (EC  $\rightarrow$  Y:  $\beta = 0.184$ ; GSMME  $\rightarrow$  Y:  $\beta = 0.142$ ;  $p < 0.05$ ). These results indicate that heightened environmental concern and sustained exposure to green digital content independently motivate consumers toward environmentally committed behavior, even though a portion of these effects is transmitted indirectly through green product attitudes.

**H6 & H7: The Mediating Role of Attitude toward Green Products**

Bootstrapping results provide evidence that ATGP functions as a partial mediator in the relationships from EC to ECM and from GSMME to ECM ( $\beta = 0.165$  and  $0.252$ , respectively;  $p < 0.001$ ).

These findings highlight the indispensable role of attitude as a psychological intermediary that translates environmental awareness and digital media exposure into behavioral commitment. Stated differently, neither EC nor GSMME alone is sufficient to generate green behavioral outcomes; favorable attitudes toward green products must first be established. This is consistent with Ajzen's (1991) theoretical framework and aligned with Biswas & Roy

(2015), who similarly conclude that environmentally responsible behavior emerges from a sequential cognitive process in which attitudinal formation precedes behavioral enactment.

## CONCLUSION

The present study yields several important insights into the dynamics of green consumer behavior in the digital era. EC and GSMME were both confirmed as significant determinants of ATGP and ECM, while ATGP was established as a partial mediator bridging the two exogenous variables and the outcome construct. These results collectively suggest that millennial consumers, who constitute the core market segment for Indonesian MSMEs, are particularly responsive to sustainability messaging when it is delivered through socially credible and emotionally resonant digital channels. The broader implication is that green marketing success in the contemporary digital landscape depends not merely on raising environmental awareness, but equally on the capacity of millennial MSMEs to craft digital communications that are contextually relevant, inspirational, and firmly grounded in genuine sustainability commitments.

## REFERENCES

- 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)
- Algharabat, R., Rana, N. P., Alalwan, A. A., Baabdullah, A., & Gupta, A. (2020). Investigating the antecedents of customer brand engagement in social media-based brand communities. *Journal of Retailing and Consumer Services*, 53, 101767. <https://doi.org/10.1016/j.jretconser.2019.01.016>
- Biswas, A., & Roy, M. (2015). Green products: An exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, 87(1), 463–468. <https://doi.org/10.1016/j.jclepro.2014.09.075>
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502–520. <https://doi.org/10.1108/00251741211216250>
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56(3), 425–442. <https://doi.org/10.1111/0022-4537.00176>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage Publications.
- Joshi, Y., & Rahman, Z. (2019). Consumers' sustainable purchase behaviour: Modeling the impact of psychological factors. *Ecological Economics*, 159, 235–243. <https://doi.org/10.1016/j.ecolecon.2019.01.025>
- Kim, A. J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65(10), 1480–1486. <https://doi.org/10.1016/j.jbusres.2011.10.014>
- Kim, S., Park, H., & Kim, J. (2023). How social media influences green consumerism among millennials. *Sustainability*, 15(8), 6421. <https://doi.org/10.3390/su15086421>
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: The effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220–229. <https://doi.org/10.1111/j.1470-6431.2006.00523.x>
- Ng, E. S., & Parry, E. (2016). Multigenerational research in human resource management. *Research in Personnel and Human Resources Management*, 34, 1–41. <https://doi.org/10.1108/S0742-73012016000034001>
- Rahman, S. U., Barua, S., & Hoque, M. (2022). Impact of green marketing and social media marketing on sustainable purchase intention: The mediating role of green trust. *Journal of Cleaner Production*, 364, 132635. <https://doi.org/10.1016/j.jclepro.2022.132635>
- Schivinski, B., & Dąbrowski, D. (2016). The effect of social media communication on consumer perceptions of brands. *Journal of Marketing Communications*, 22(2), 189–214. <https://doi.org/10.1080/13527266.2013.871323>
- Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, 21(4), 327–339. <https://doi.org/10.1006/jevp.2001.0227>
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53–66. <https://doi.org/10.1080/10641734.2004.10505164>
- Statista. (2024). *Social media usage among millennials worldwide*. Retrieved from <https://www.statista.com>
- Zhao, L., Wang, L., & Xu, Y. (2023). Environmental concern, green advertising, and purchase intention: Evidence from young consumers. *Journal of Cleaner Production*, 398, 136511. <https://doi.org/10.1016/j.jclepro.2023.136511>