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# Green influencers' source credibility in driving customers' green behaviors: Role of trust, engagement, and knowledge in a cross-country study

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## ABSTRACT

This paper aims to develop a model of consumers' engagement with green social media influencers (GSMIs) for sustainability. It investigates the effect of source credibility's components on trust in GSMIs, driving engagement toward GSMIs; the relationship between engagement and consumer green behavior dimensions are also examined. Moreover, the study evaluates the moderating effects of environmental knowledge on the relationship between engagement and consumer green behavior dimensions. An online survey was used to collect data from mobile users and followers of GSMIs in Vietnam and South Korea through panel data from a research company. A final sample size of 600 ( $n_{\text{Vietnam}} = 300$ ;  $n_{\text{Korea}} = 300$ ) participants was analyzed, including structural equation modeling for the main impacts and multiple group analysis for the moderating effects. The results show that the main impacts in the conceptual framework were confirmed, except the impact of trustworthiness on Trust in GSMIs (Vietnam) and the effect of both expertise and trustworthiness on Trust in GSMIs (South Korea). Environmental knowledge moderated the effect of engagement on consumer green behavior dimensions differently. The comparison between the two countries shows the difference in perception and behaviors between developing and developed markets. This helps bridge the gap between environmental studies and marketing research, leading to a holistic approach to understanding green consumer behaviors. The research will encourage businesses to adopt more sustainable marketing practices. In practice, this shift towards sustainability is not only beneficial for the environment but also for the long-term success and reputation of GSMIs and businesses.

## 1. Introduction

Influencer marketing is considered a dominant force in digital marketing, with social media influencers (SMIs) playing an essential role in influencing consumer behavior. Compared to traditional advertisements, consumers are more possibly to trust and involve with influencers (Djafarova and Rushworth, 2017). Global expenditure on influencer marketing has surged to \$39.33 billion and is projected to grow at an annual rate of 9.37 % until 2029 (Statista, 2025). As brands continue leveraging influencer marketing to engage consumers, academic research on its effectiveness has expanded significantly (Cascio Rizzo et al., 2023; Vrontis et al., 2021).

Sustainability has become a fundamental aspect of influencer marketing, motivating more consumers to adopt environmentally conscious lifestyles. As a result, a new wave of influencers—green social media influencers (GSMIs), has emerged with a focus on environmental

sustainability. These influencers advocate for eco-friendly lifestyles and promote sustainable products, encouraging greater environmental awareness among their audiences (Pittman and Abell, 2021). They have gained widespread attention as their engagement fosters stronger parasocial relationships between them and their audiences (Knapfer et al., 2023). With growing concerns over environmental concerns such as pollution, climate change, and natural disasters, consumer interest in sustainable development continues to rise (Gürlek and Koseoglu, 2021). In response, businesses are increasingly adopting eco-friendly practices (Lee et al., 2018), with green influencer marketing becoming a key strategy for communicating these initiatives to consumers (Yesiloglu and Was, 2020; Yildirim, 2021).

Nevertheless, businesses must carefully manage their sustainability messaging to protect the reputation as well as remain consumer trust, while avoiding greenwashing—making misleading or unsubstantiated claims about their environmental initiatives (Parguel et al., 2011).

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Consequently, while the credibility of GSIs is crucial in safeguarding businesses against greenwashing risks, the knowledge of environmental issues helps individuals to make informed choices and adopt eco-friendly purchasing habits (Bator and Cialdini, 2000; Mahesh and Ganapathi, 2012). By collaborating with influencers who possess genuine and verifiable sustainability credentials, brands can ensure their environmental efforts are perceived as authentic, strengthening consumer trust and loyalty. This emphasizes the essence of source credibility and environmental knowledge in promoting transparency and fostering long-term brand-consumer relationships within the influencer marketing landscape. While prior studies have examined influencer-driven engagement in general social commerce contexts and across various types of influencers (Fang et al., 2025), this study extends that line of research by focusing on a niche category – GSIs and their credibility components as drivers of sustainable consumer behavior. Academic interest in GSIs is growing, as reflected in recent works on food reviews (Zhao et al., 2024), eco-labeling (Rajput et al., 2024), virtual influencer imagery (Jiang et al., 2024), scale development (Kılıç and Gürlek, 2024), message characteristics (König and Maier, 2024), and generational differences (Abate et al., 2025), there remains a gap in understanding how GSIs shape different dimensions of green behaviors in a multifaceted manner. This is particularly critical in cross-national comparative contexts such as between a developing market and a developed market with high digital penetration.

Despite the recent expansion, the theoretical and conceptual foundation of green influencer marketing remains underdeveloped (Lee et al., 2021). Ye et al. (2021) pointed out a gap in research on the impact of environmentally focused influencer marketing on green behaviors. Moreover, the sources of the content shared within the network members or peers are not usually analyzed, investigated, or validated by social media users (Shareef et al., 2020). Therefore, recent research on SMIs paid close attention to the importance of source credibility in driving trust in GSIs contents and consumer green behaviors (Knapfer et al., 2023; Le and Ryu, 2023; Stern, 2000). Therefore, there is still a notable lack of understanding regarding how specific aspects of source credibility in GSIs contribute to building trust among their followers. Source credibility—encompassing expertise, trustworthiness, attractiveness, and similarity—plays a key role in shaping an influencer's impact (Munnukka et al., 2016). This gap is particularly important, as trust serves as a fundamental prerequisite for other consumer behaviors, including engagement and purchase intention (Lee and Watkins, 2016; Lou and Kim, 2019; Le and Ryu, 2023).

This research seeks to advance our understanding of consumer engagement with GSIs in developed and developing countries by addressing five purposes. First, the research aims to develop a robust framework that explains how consumers interact with GSIs to promote sustainability across diverse market contexts. Second, it investigates the influence of source credibility—specifically expertise, trustworthiness, attractiveness, and similarity—on consumers' trust in GSIs. Third, it explores the critical role of trust in fostering deeper engagement with GSIs. Fourth, it investigates how consumer engagement translates into various pro-environmental behaviors, including purchase intention, public support, organizational participation, and environmental activism. Finally, the study assesses the moderating influence of environmental knowledge on the relationship between engagement and these green behavioral outcomes on social media. By addressing these dimensions, this study sheds light on how effective GSIs are in driving sustainable consumer behavior, while also offering practical recommendations for marketers and policymakers seeking to use social media for environmental advocacy.

## 2. Literature review

### 2.1. Theoretical foundations

The Stimulus-Organism-Response (S-O-R) model reflects a

theoretical foundation for unraveling the intricate ways in which influencers mold the behaviors of their followers or customers, as highlighted by Vladimirova et al. (2024). Originally proposed by Mehrabian and Russell (1974), external stimuli ignite internal psychological processes within individuals (the organism), ultimately culminating in observable behavioral responses. It serves as the bedrock for the proposed framework in this study, which centers on consumer engagement with GSIs within the realm of sustainability. Specifically, the model frames source credibility dimensions—expertise, trustworthiness, attractiveness, and similarity—as powerful stimuli that cultivate trust, a critical psychological state. This trust, in turn, fuels engagement, which manifests as a range of green consumer behaviors, shaped by these internal perceptions, such as sustainable purchasing, advocacy, and environmental activism. The study extends the S-O-R framework into a green marketing context by explicitly incorporating influencer attributes to internal psychological and behavioral aspects (trust and engagement) and then to observable pro-environmental behavior. Moreover, this study also addresses the moderation by environmental knowledge, suggesting that organism–response pathways vary by consumers' internal cognitive elements, enhancing the explanatory power of S-O-R in sustainability contexts.

While the S-O-R theory has recently gained traction on SMIs, its application to sustainability remains underexplored, presenting a compelling opportunity for this study. Much of the existing literature leveraging S-O-R has focused on business-oriented outcomes—think marketing effectiveness (Luarn et al., 2024), impulse buying tendencies (Koay et al., 2021), purchase intentions (Hewei and Youngsook, 2022), or brand-building strategies (Zhou et al., 2021). These studies, while valuable, often ignore the broader societal implications of influencer impact. In contrast, this research sharpens its focus on the green influencer niche, seeking to highlight how GSIs can leverage consumer green behaviors that promote sustainability, a mission with far-reaching environmental and ethical implications.

To enrich the S-O-R framework for this purpose, the study integrates three additional theories, weaving a more robust tapestry of relationships among the constructs under scrutiny. This enhancement not only fortifies the model's explanatory power but also tailors it to the unique dynamics of sustainability-driven influencer marketing. By bridging this gap, the research promises to deliver fresh, persuasive insights that extend beyond commercial metrics, spotlighting the transformative potential of GSIs in fostering a more sustainable world.

First, the concept of source credibility is essential for understanding the influencer-follower relationship and the development of parasocial connections. It refers to the perceived trustworthiness, expertise, and likability of a communicator, which greatly impacts how audiences receive and interpret messages. Source credibility originally comprised expertise and trustworthiness (Hovland and Weiss, 1952), but was later expanded to include likability and attractiveness (Munnukka et al., 2016). Therefore, this study adopts a four-dimensional conceptualization of source credibility on peer endorsers, which includes trustworthiness, expertise, similarity, and attractiveness (Munnukka et al., 2016).

In addition, the eWOM adoption model (EAM) (Le and Ryu, 2023) integrates source evaluation attributes, trust in eWOM, and intentions related to eWOM and hotel booking, presenting a strong influence of source credibility in motivating trust, driving eWOM and purchasing intentions. Source credibility was one of three main components of source evaluation in EAM, driving trust in vloggers' reviews. This study deepens this relationship by exploiting the effects of specific components of source credibility including similarity, expertise, attractiveness, and trustworthiness and how source credibility's dimensions differentially activate internal processing. For example, the relationship between expertise and trust stimulates cognitive evaluations – consumers assess the logical credibility and knowledgeability of the influencer, leading to thoughtful engagement and a sense of responsibility for green behavior. This aligns more closely with the rational processing path in

the EAM. Besides, the relationship between similarity and trust evokes affective identification – followers relate to influencers based on shared values or lifestyles, reinforcing their existing beliefs. This follows the value activation process in the value-belief-norm theory regarding environmentalism (VBNTE), in which engagement emerges from personal relevance and emotional resonance rather than cognitive evaluation. Lou and Yuan (2019) have shown that source credibility can play a pivotal role in enhancing consumer trust toward branded posts. Based on these findings, this study expects a relationship between four source credibility dimensions, trust in GSIs, and engagement intention from followers. This study positions GSIs as eWOM sources whose credibility directly affects consumer trust. By testing engagement as a mediator and trust as a precursor, the study enriches the understanding of how eWOM by influencers leads to green behavior adoption, not just product choice. The cross-national comparison also shows how eWOM adoption mechanisms vary across cultures and levels of market development, a relatively underexplored area in eWOM literature.

Finally, VBNTE (Stern, 2000) indicated that individual values – particularly altruistic ones – shape environmental attitudes and behaviors through a sequential process. Personal values influence the adoption of the new environmental paradigm, which in turn shapes beliefs about adverse environmental consequences and the ascription of responsibility, ultimately activating personal norms for pro-environmental actions. Empirical research has validated this model, demonstrating its ability to predict various forms of non-activist environmentalism, such as policy support and private sphere behaviors. This study conceptualizes consumer green behaviors as a multidimensional construct encompassing four key dimensions: purchase intention with GSIs, public support, organizational behaviors, and environmental activism. By introducing engagement with GSIs as a behavioral driver influenced by GSIs' credibility and trust in them, this study adds a media-based mechanism through which norms may be activated. Particularly, GSIs can function as social norm transmitters, potentially reinforcing pro-environmental personal norms via their communication, which extends the practical application of VBNTE to digital influencer marketing. Fig. 1 describes the network relationship between examined constructs in the model of consumers' engagement with GSIs for sustainability.

## 2.2. Hypotheses development

### 2.2.1. Green social media influencers

This study considered GSIs a distinct category of SMIs dedicated to promoting sustainable living and eco-products, and fostering ecological awareness (Pittman and Abell, 2021). Through their social media channels, they aim to educate audiences about environmental challenges, support green initiatives, and motivate followers to make more eco-conscious choices. These influencers often partner with like-minded brands, recommending goods that are sustainably sourced, ethically manufactured, and intended to reduce environmental harm.

Beyond product promotion, GSIs play a pivotal role in educating their audience about sustainability, the environmental consequences of individual decisions as well as the advantages of a green lifestyle (Kılıç and Gürlek, 2024; Knupfer et al., 2023; Le et al., 2025). Through sharing tips, personal experiences, and actionable advice, they instill environmental responsibility in their followers (König and Maier, 2024a). This holistic approach enhances public awareness and fosters a community of like-minded individuals committed to making meaningful changes for a more sustainable future (König and Maier, 2024b). Although recent studies have increasingly focused on the critical role of green influencers across various aspects of sustainability, they focused on single behaviors of audiences such as purchase intention (Le et al., 2025), environmental activism (Knupfer et al., 2023), environmental consciousness (Kılıç and Gürlek, 2024), green consumption (König and Maier, 2024b). To extend this narrow scope of behavioral outcomes, this research digs the concept of followers' green behaviors into four different aspects rather than a unidimensional construct.

### 2.2.2. The relationship between source credibility dimensions and trust in GSIs

Expertise relates to attributes in their content that demonstrate a higher level of knowledge and experience in specific areas compared to surrounding individuals (McQuarrie et al., 2013). Attractiveness refers to the extent to which an individual perceives the social media content of a social influencer as appealing (Pater, 1983). Trustworthiness is considered a significant determinant of consumer perception and attitude towards a brand (Erdogan, 1999). Similarities are common characteristics that the audience shares with the media personality (Schiappa et al.,

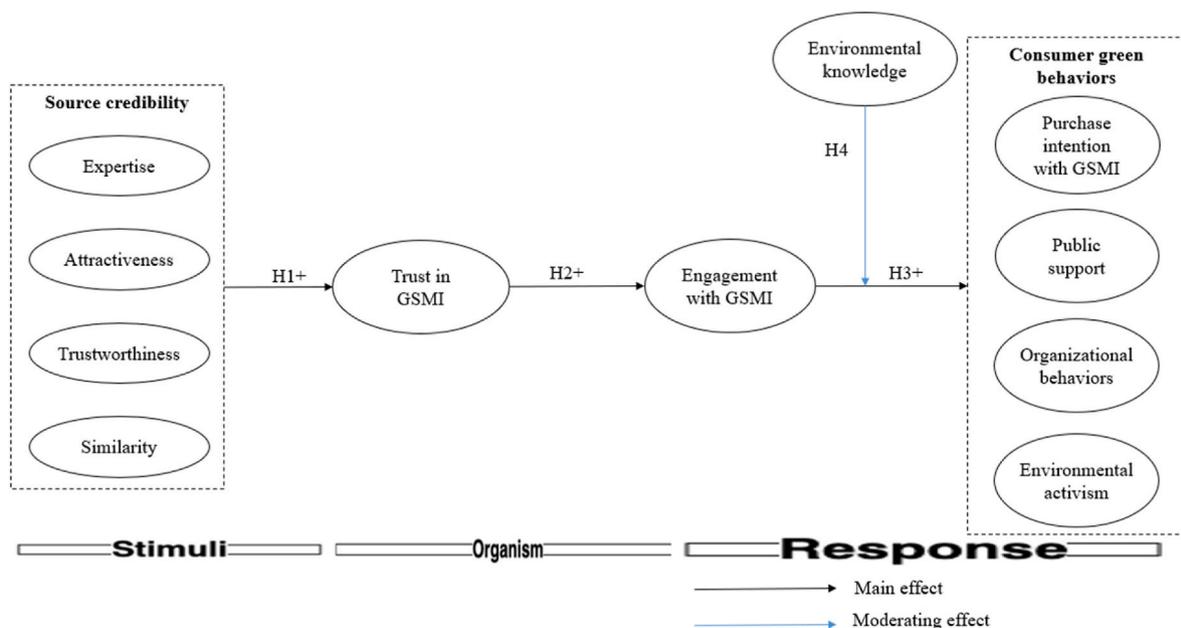


Fig. 1. The conceptual model of consumers' engagement with GSIs for sustainability.

Notes: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ ; standardized path coefficients given on the paths; →significant paths, →non-significant paths.

2007). Besides, trust in GSMTs refers to the confidence placed in an exchange partner, specifically due to the demonstrated commitment to environmental performance (Moorman et al., 1993).

The EAM highlighted a strong link between source credibility and trust in SMTs, showing that a vlogger's high credibility boosts customer trust in them (Le and Ryu, 2023). Similarly, Leite and Baptista (2022) argued that SMT source credibility significantly enhances brand trust. Interpersonal trust, meanwhile, is molded by a listener's view of a speaker's expertise, reliability, intentions, engagement, appeal, and the opinions of their social circle. Cai et al. (2024) found that perceived warmth and competence in chatbots positively affect customer trust. Djafarova and Rushworth (2017) asserted that trust in celebrity product reviews depended on their expertise, product knowledge, and relevance to the audience. Lou and Yuan (2019) noted that trustworthiness, similarity, and attractiveness between influencers and followers significantly increased trust in their branded content. Additionally, Deshpandé and Stayman (1994) emphasized that consumers trust celebrities with shared cultural or ethnic backgrounds, underscoring the need for endorser-audience alignment. Thus, this paper proposes:

**H1.** Source credibility dimensions, including (a) Expertise, (b) Attractiveness, (c) Trustworthiness, and (d) Similarity have a positive influence on Trust in GSMTs.

### 2.2.3. The effect of trust in GSMTs on engagement

Engagement with GSMTs is a range of interactions and responses, including but not limited to cognitive processing of content, emotional connections formed with the influencer's message or persona, and various actions taken such as liking, commenting, sharing, or purchasing products promoted by the influencer (Hollebeek, 2011). Trust serves to underpin favorable social exchanges and facilitates the ongoing development of relationships (Sirdeshmukh et al., 2002). On digital platforms, customer trust positively affects customer engagement toward corporate social responsibility activities (Alhumud et al., 2025). Regarding green influencer marketing, trust in the influencer instills confidence in followers that engaging with the influencer yields positive outcomes. Consequently, followers are motivated to sustain this relationship through active engagement with the influencer (Kim and Kim, 2021). Thus, this paper proposes:

**H2.** Trust in GSMTs has a positive effect on Engagement with GSMT.

### 2.2.4. The impact of engagement on consumers' green behaviors' components

Stern (2000) classified environmentally significant behavior into four subcategories: environmental activism (i.e., participating in organizations and protests), non-activist public-sphere behaviors (i.e., supporting environmental policies or engaging in environmental citizenship), private-sphere environmentalism (i.e., making purchasing, usage, and disposal decisions based on environmental considerations), and other environmentally impactful behaviors (i.e., influencing systemic change through organizations).

Engagement with GSMTs refers to multidimensional process encompassing behavioral, cognitive, and emotional interactions between consumers and influencers (Hollebeek, 2011). This engagement includes consuming and processing content, forming emotional connections with the influencer's messages or personal, and taking actions such as liking, commenting, sharing, or purchasing eco-friendly products promoted by the influencer.

Prior research consistently highlights that active involvement and interaction serve as strong predictors of subsequent consumer behaviors (Pham and Avnet, 2009; Schau et al., 2009; Knupfer et al., 2023). In particular, Knupfer et al. (2023) revealed that engagement can activate environmental behaviors from consumers to support eco-organizations. In terms of organizational behaviors, employee engagement with environmental initiatives can enhance level of their green behaviors (Ababneh, 2021; Aboramadan, 2022). These results emphasize the

essence of engagement in motivating consumer intentions, specifically in fostering sustainable consumption habits. Given this, it is logical to extend the influence of engagement on consumer behavior to the four subcategories of environmental behaviors identified by Stern (2000).

**H4.** Engagement with GSMT has a positive effect on consumer green behaviors' dimensions, including (a) purchase intention, (b) public support, (c) organizational behaviors, and (d) environmental activism.

### 2.2.5. The moderating effect of environmental knowledge

Previous studies consistently emphasize the substantial influence of consumers' environmental concerns on their purchasing behaviors regarding environmentally friendly products (Heo and Muralidharan, 2019; Morren and Grinstein, 2016; White et al., 2019). Further empirical findings from studies conducted by Brochado et al. (2017) and Kautish and Sharma (2019) reinforce the importance of environmental concerns in guiding environmentally conscious behavior of customers. Consequently, individuals with an increased awareness of environmental issues are more inclined to demonstrate increased green behaviors due to their engagement with GSMTs.

Environmental knowledge is important in driving consumer attitudes and behaviors towards sustainability (Stojanova et al., 2023). Earlier studies indicated that people with higher levels of environmental knowledge are more inclined to make informed choices and adopt eco-friendly purchasing habits (Bator and Cialdini, 2000; Mahesh and Ganapathi, 2012). Goh and Balaji (2016) found that people with greater eco-conscious knowledge are more inclined to purchase eco-friendly items. Thus, an enhanced comprehension of ecological challenges may amplify the impact of influencer engagement on consumers' intentions to conduct green behaviors.

**H10.** Environmental Knowledge moderates the effects of engagement on consumer green behaviors' dimensions, including (a) purchase intention, (b) public support, (c) organizational behaviors, and (d) environmental activism.

## 3. Research method

### 3.1. Data collection

Environmental behavior varies between individuals from developed and developing countries, largely owing to differences in culture, infrastructure, and the availability of sustainability-centered resources (Vicente-Molina et al., 2013). These disparities underscore the importance of examining both types of economies to understand how social, economic, and cultural conditions shape the success of green marketing initiatives, particularly those led by GSMTs. Developed nations typically enjoy robust digital infrastructure, comprehensive environmental policies, and greater public awareness of sustainability issues. In comparison, developing countries frequently encounter obstacles like insufficient infrastructure, underdeveloped regulatory frameworks, and cultural resistance toward eco-friendly practices. To investigate these contrasting dynamics, this study compares South Korea and Vietnam, offering a novel perspective on how green marketing strategies can be tailored to different market environments. Data collection took place in July 2024 via an online survey platform. The pretest process includes two main steps: a back-translation procedure and an expert review. Back-translation method was employed for evaluating the questionnaire content to ensure the accuracy, clarity, and cultural equivalence of translated the questionnaire. Particularly, the original English questionnaire was first translated into Vietnamese and Korean by two independent bilingual researchers, and then independently back-translated into English by different bilingual individuals (third party). Discrepancies between the original and back-translated versions were resolved through discussion among translators and research team members to ensure semantic and conceptual equivalence. Once consistency and agreement on the final translated content were achieved, the

questionnaire was reviewed by university faculty members and a sample of target participants to confirm its clarity and ease of understanding. The survey began with a screening question to filter participants to identify target participants. Before proceeding, respondents were provided with an overview of the study’s purpose, research topic, key construct definitions, and examples of GSMIs to enhance their understanding of the questionnaire. In addition, respondents were guaranteed anonymity, and their data was used strictly for research purposes. By clicking the “agree” button, respondents provided informed consent and proceeded with the survey.

The survey was delivered independently in two countries: Vietnam and South Korea, with the content adapted to reflect cultural nuances and ensure precise language use. The survey targeted respondents aged 18 and above who are active users of mobile social media platforms. Moreover, these respondents are followers of at least one GSMIs who regularly posts content related to environmental sustainability, green living, or eco-friendly products on those platforms. A screening question was added at the beginning of the questionnaire to ensure appropriate target respondents. The final questionnaire was then distributed online through a professional market research company’s panel. The research company maintains large-scale online consumer panels in both Vietnam and South Korea. The research company was asked to apply the quota sampling technique during the data collection process to ensure balanced survey distribution across gender, education level, and geographic regions within each country. This approach ensures a diverse and representative sample with an equal distribution across demographic backgrounds.

To reduce bias associated with financial rewards, trap questions (e.g., reversed scored items) were used to check the concentration of respondents, and respondents who did not pass these checks were removed from the analysis. In addition, responses were filtered based on completion time (excluding those completed in under 1 min) and response quality (removing those with the same answers across all construct questions). Following the data cleaning process, 600 valid responses were retained in the final sample, with 300 participants in Vietnam and 300 in South Korea.

### 3.2. Participants’ profile

For the Vietnam sample, 44.3 % of participants were men, and 56.7 % were women. Regarding age, the 25–34 age group accounts for the majority (31.7 %), while only 16 % were aged 45–54, and no respondents were above 54 years old. Regarding education, bachelor’s degree holders (33.3 %) and high school diploma holders (34.7 %) made up similar proportions of the sample. For occupation status, 62.3 % of them were employed full-time, whereas only 1.7 % held part-time jobs (Table 1).

For the South Korea sample, 47.3 % of respondents were male, and 52.7 % were female. The majority (35 %) were aged 25–34, while 6.3 % were above 54 years old. Regarding education, 55 % of respondents held a bachelor’s degree, making it the most common educational level. In addition, 20 % of participants were students, while 3.7 % were employed full-time (Table 1).

### 3.3. Measures development

Measurement scales used in this study were adapted from previous research and tailored to fit the study’s setting, except for the measure of environmental knowledge. Specifically, the constructs of attractiveness (4 items), expertise (4 items), and trustworthiness (4 items) were derived from Yuan and Lou (2020), while the measure for similarity (3 items) was taken from Munnukka et al. (2016). Trust in GSMIs was evaluated from a four-item scale of Kim and Kim (2021). Engagement (3 items) was measured based on Knupfer et al. (2023). For the four dimensions of consumer green behavior, purchase intention (3 items) was borrowed from the study of Aw and Chuah (2021), while public support

**Table 1**  
Sample characteristics.

Dimensions	Items	Vietnam (n = 300)		South Korea (n = 300)	
		Frequency	Percent (%)	Frequency	Percent (%)
<b>Gender</b>	Male	130	43.3	142	47.3
	Female	170	56.7	158	52.7
<b>Age</b>	18–24	81	27.0	96	32.0
	25–34	95	31.7	105	35.0
	35–44	76	25.3	59	19.7
	45–54	48	16.0	21	7.0
	Above 54	–	–	19	6.3
<b>Education level</b>	Below a high school diploma	43	14.3	15	5.0
	High school diploma or equivalent	104	34.7	66	22.0
	degree	100	33.3	165	55.0
	Bachelor’s degree	27	9.0	25	8.3
	Master’s degree	16	5.3	17	5.7
	Doctoral degree	10	3.3	1	0.3
	Prefer not to say	10	3.3	1	0.3
<b>Occupation</b>	Full-time employment	187	62.3	11	3.7
	Part-time employment	5	1.7	28	9.3
	Unemployed	28	9.3	33	11.0
	Self-employed	18	6.0	23	7.7
	Housewife	14	4.7	28	9.3
	Student	48	16.0	60	20.0

(3 items) was based on [Dono et al. \(2010\)](#). Organizational behavior (5 items) was borrowed from [Zacher et al. \(2023\)](#), and six items of environmental activism were referred to the scale of [Knupfer et al. \(2023\)](#). The examining constructs were evaluated by a seven-point Likert scale (“completely disagree – 1” to “completely agree – 7”).

Environmental knowledge was assessed using five multiple-choice questions, following [Geiger et al. \(2019\)](#). Each question had four possible answers, with only one correct option. These questions covered key aspects of environmental awareness, including climate change, sustainable consumption behaviors, and the societal and political impacts on the environment. Responses were coded as either “correct = 1” or “incorrect = 0,” with the total number of correct answers providing a composite environmental knowledge score. In total, the final measurement framework comprised 44 items across nine constructs.

### 3.4. Data analysis strategies

Data analysis in this paper was performed using SPSS and AMOS. The process began with evaluating the reliability of the measurement scales and testing for common method bias, accompanied by descriptive statistical analysis. Confirmatory factor analysis (CFA) was used to assess the measurement model, including composite reliability (CR), convergence and discriminant validity, as well as overall model fit. CB-SEM was selected owing to its appropriateness for analyzing complex models, the nature of the data, and its rigorous assessment standards. To investigate the moderating role of environmental knowledge, a median-split approach was performed to separate participants into high and low knowledge groups. Multiple group analysis (MGA) was then run to identify any significant differences between these subgroups.

## 4. Results

### 4.1. Measurement validation

First, descriptive statistics were calculated for the data collected from both the Vietnamese and South Korean samples (see Table 2).

For the Vietnam sample, the mean scores across the eleven constructs ranged from 1.990 (environmental knowledge) to 5.115 (attractiveness), indicating a low level of environmental awareness but a strong perception of GSMIs' appeal. The standard deviation values for eight constructs exceeded 1, ranging from 1.087 (attractiveness) to 1.878 (environmental knowledge), suggesting considerable variation in respondents' environmental knowledge. After removing six items (SS1, ENG2, PI1, PSU2, EAC4, and EAC6) to enhance the reliability of the scales, all Cronbach's alpha values were over 0.7, ranging from 0.829 (environmental knowledge) to 0.921 (purchase intention), demonstrating strong internal consistency of the constructs' items (Fornell and Larcker, 1981).

In comparison, for the South Korea sample, the mean scores across constructs seem higher than what in the Vietnam sample, ranging from 2.7 (environmental knowledge) to 5.115 (attractiveness). All the standard deviation values also exceeded 1, ranging from 1.159 (organizational behaviors) to 1.929 (environmental knowledge), similarly suggesting sustainable variation in respondents' environmental knowledge. After removing six items (SS2, ENG3, PI1, PSU2, EAC4, and EAC6), all Cronbach's alpha values were over 0.7, ranging from 0.840 (environmental knowledge) to 0.918 (engagement), demonstrating strong internal consistency of the constructs' items across constructs.

Then, the measurement of ten main constructs were evaluated. All CR values exceeded 0.7, with the lowest being 0.877 (Vietnam) and 0.884 (South Korea) for trustworthiness, confirming the reliability of each construct (Table 3). All the AVE scores were over 0.5, ensuring convergent validity across both country samples. Furthermore, the MSV scores were smaller than the corresponding AVE, and the correlations between each construct and others were smaller than the square root of its AVE, ensuring discriminant validity in both samples. Finally, the model fit indices indicated a good fit, demonstrating that the measurement model appropriately represented the data across both country samples [Vietnam:  $\chi^2 = 601.049$  (df = 443,  $\chi^2/df = 1.375 < 3$ ),  $p < 0.001$ , GFI = 0.895 > 0.8, TLI = 0.974 > 0.9, CFI = 0.978 > 0.9, RMSEA = 0.035; South Korea:  $\chi^2 = 586.935$  (df = 444,  $\chi^2/df = 1.322 < 3$ ),  $p < 0.001$ , GFI = 0.898 > 0.8, TLI = 0.977 > 0.9, CFI = 0.980 > 0.9, RMSEA = 0.033 < 0.08; Hair et al. (2010); Seyal et al. (2002)].

### 4.2. Structural model assessment

#### 4.2.1. The main effects' testing results

The model fit indices were all satisfactory, demonstrating an

**Table 2**  
Means, Standard deviations (SD), and Reliability test result.

Dimensions	Vietnam			South Korea		
	Means	SD	Cronbach's alpha	Means	SD	Cronbach's alpha
SE	4.853	1.110	0.907	4.962	1.219	0.906
SA	5.115	1.087	0.894	5.133	1.250	0.892
ST	4.736	1.225	0.883	5.028	1.173	0.890
SS	4.188	1.174	0.914	4.400	1.266	0.891
TRU	4.233	1.253	0.9	4.433	1.279	0.916
ENG	4.360	1.389	0.911	4.907	1.287	0.918
PI	4.465	1.312	0.921	4.882	1.410	0.899
PSU	2.973	1.495	0.889	3.167	1.526	0.894
EOB	4.153	1.293	0.903	4.423	1.159	0.890
EAC	4.316	1.225	0.87	4.518	1.297	0.893
EK	1.990	1.878	0.829	2.700	1.929	0.840

Notes: SE: Expertise; SA: Attractiveness; ST: Trustworthiness; SS: Similarity; TRU: Trust in GSMI; ENG: Engagement; PI: Purchase intention with GSMI; PSU: public support; EOB: Organizational behaviors; EAC: Environmental activism; EK: Environmental knowledge.

appropriateness between the dataset and the structural framework [Vietnam:  $\chi^2 = 792.524$  (df = 473,  $\chi^2/df = 1.676 < 3$ ),  $p < 0.001$ , GFI = 0.859 > 0.8, TLI = 0.951 > 0.9, CFI = 0.956 > 0.9, RMSEA = 0.048 < 0.08; South Korea:  $\chi^2 = 803.614$  (df = 474,  $\chi^2/df = 1.695 < 3$ ),  $p < 0.001$ , GFI = 0.857 > 0.8, TLI = 0.950 > 0.9, CFI = 0.955 > 0.9, RMSEA = 0.048 < 0.08; Hair et al. (2010); Seyal et al. (2002)].

CB-SEM was conducted to evaluate the structural model, revealing slight differences in hypothesis testing results between the two country samples (Table 4). In the Vietnamese sample, all proposed hypotheses were confirmed except for the influence of trustworthiness on trust in GSMIs. Conversely, in the South Korean sample, trustworthiness and expertise—two dimensions of source credibility—did not exhibit significant effects. As a result, H1a, H1b, H1d, H2, H3a, H3b, H3c, and H3d were supported in the Vietnam sample, while H1b, H1d, H2, H3a, H3b, H3c, and H3d were supported in the South Korea sample.

Among the four source credibility characteristics, attractiveness were the strongest influential factor of trust in GSMIs in South Korea ( $\beta_{SA} = 0.349$ ), whereas similarity had the strongest influence in Vietnam ( $\beta_{SS} = 0.234$ ). Additionally, trust in GSMIs had a significant positive impact on engagement with GSMIs in both samples, with strong path coefficients ( $\beta = 0.424$  for South Korea and  $\beta = 0.485$  for Vietnam). Furthermore, engagement with GSMIs significantly and positively influenced all four dimensions of consumer green behaviors in both countries. There was a slight variation in the path coefficients, as engagement had the strongest effect on organizational behaviors in South Korea ( $\beta = 0.485$ ), whereas in Vietnam, it had the greatest impact on environmental activism ( $\beta = 0.566$ ) (see Fig. 2).

#### 4.2.2. The moderating effects' testing results

Path coefficients between two groups of environmental knowledge were compared to examine its moderating effects. Particularly, environmental knowledge significantly moderated the effect of engagement on environmental activism in the Vietnam sample (z-score = 2.364;  $p < 0.05$ ), supporting H4d (Table 5). Nevertheless, no notable differences were found in the path coefficients representing the impact of engagement on the other three dimensions of consumer green behaviors between the high and low environmental knowledge groups. Notably, in the high environmental knowledge group, the impact of engagement on environmental activism was weaker.

Differently, in the South Korea sample, environmental knowledge significantly moderated the effects of engagement on both public support and environmental activism, though in opposite directions. Specifically, for individuals with high environmental knowledge, engagement had a stronger effect on public support but a weaker effect on environmental activism.

**Table 3**  
Validity and Reliability check.

Vietnam sample	CR	AVE	MSV	SS	EOB	TRU	SE	SA	ST	EAC	PI	PSU	ENG
<b>SS</b>	0.919	0.851	0.239	<b>0.922</b>									
<b>EO</b>	0.892	0.630	0.233	0.338	<b>0.794</b>								
<b>TRU</b>	0.906	0.709	0.187	0.419	0.369	<b>0.842</b>							
<b>SE</b>	0.905	0.706	0.257	0.440	0.345	0.399	<b>0.840</b>						
<b>SA</b>	0.888	0.666	0.257	0.489	0.223	0.421	0.507	<b>0.816</b>					
<b>ST</b>	0.877	0.644	0.242	0.339	0.275	0.306	0.492	0.438	<b>0.802</b>				
<b>EAC</b>	0.878	0.643	0.279	0.379	0.483	0.375	0.398	0.331	0.326	<b>0.802</b>			
<b>PI</b>	0.932	0.872	0.156	0.215	0.395	0.369	0.278	0.195	0.192	0.334	<b>0.934</b>		
<b>PSU</b>	0.906	0.828	0.147	0.345	0.296	0.384	0.363	0.254	0.240	0.375	0.379	<b>0.910</b>	
<b>ENG</b>	0.913	0.839	0.279	0.403	0.419	0.433	0.416	0.386	0.358	0.528	0.332	0.299	<b>0.916</b>

South Korea sample	CR	AVE	MSV	ENG	EOB	TRU	SE	EAC	ST	SA	PI	PSU	SS
<b>ENG</b>	0.918	0.849	0.195	<b>0.922</b>									
<b>EOB</b>	0.885	0.607	0.219	0.439	<b>0.779</b>								
<b>TRU</b>	0.915	0.733	0.246	0.375	0.452	<b>0.856</b>							
<b>SE</b>	0.908	0.714	0.245	0.392	0.357	0.366	<b>0.845</b>						
<b>EAC</b>	0.892	0.679	0.219	0.442	0.468	0.371	0.309	<b>0.824</b>					
<b>ST</b>	0.884	0.660	0.218	0.336	0.281	0.299	0.467	0.258	<b>0.813</b>				
<b>SA</b>	0.897	0.687	0.246	0.324	0.289	0.496	0.495	0.316	0.456	<b>0.829</b>			
<b>PI</b>	0.934	0.876	0.179	0.265	0.423	0.336	0.269	0.307	0.202	0.198	<b>0.936</b>		
<b>PSU</b>	0.898	0.816	0.158	0.266	0.397	0.365	0.344	0.366	0.238	0.246	0.344	<b>0.903</b>	
<b>SS</b>	0.893	0.807	0.215	0.394	0.377	0.377	0.395	0.350	0.354	0.464	0.190	0.303	<b>0.898</b>

Notes: CR: composite reliability; AVE: average variance extracted; MSV: Maximum Shared Variance; Numbers on the diagonal (in bold) show the square root of the AVE; numbers below the diagonal show construct correlations.

**Table 4**  
The hypothesis testing results.

Hypotheses	Vietnam				South Korea			
	B	S.E.	C.R.	Result	B	S.E.	C.R.	Result
H1a: SE → TRU	0.226*	0.092	2.455	Support	0.162	0.091	1.781	Reject
H1b: SA → TRU	0.293**	0.108	2.716	Support	0.409***	0.083	4.938	Support
H1c: ST → TRU	0.074	0.081	0.907	Reject	0.042	0.085	0.491	Reject
H1d: SS → TRU	0.282***	0.080	3.531	Support	0.217*	0.084	2.581	Support
H2: TRU → ENG	0.432***	0.051	8.389	Support	0.328***	0.045	7.264	Support
H3a: ENG → PI	0.323***	0.052	6.195	Support	0.401***	0.084	4.795	Support
H3b: ENG → PSU	0.321***	0.059	5.416	Support	0.374***	0.082	4.537	Support
H3c: ENG → EOB	0.549***	0.070	7.861	Support	0.399***	0.053	7.562	Support
H3d: ENG → EAC	0.537***	0.058	9.185	Support	0.607***	0.073	8.290	Support

Notes: \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; B: unstandardized path coefficients; C.R.: critical ratio; S.E.: standard error.

**5. Discussions and conclusions**

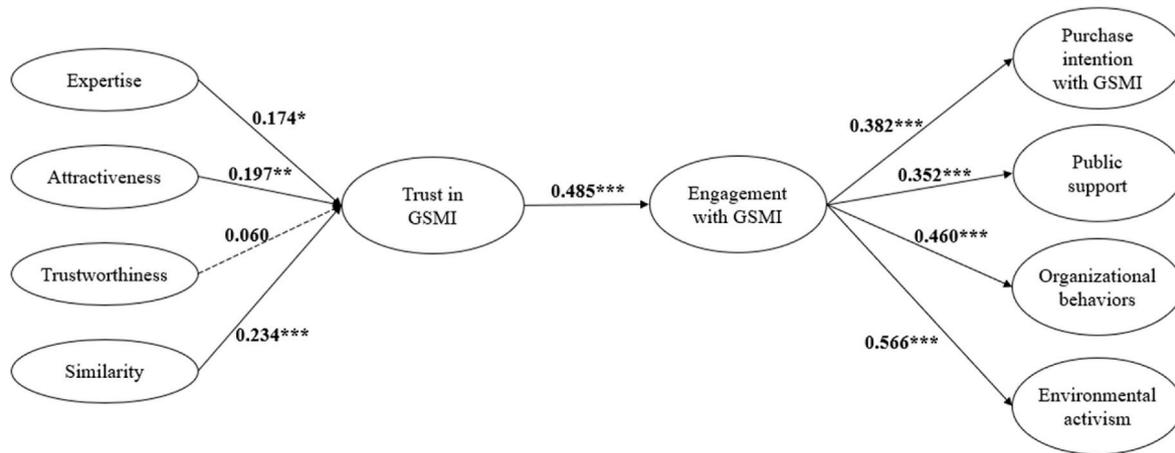
*5.1. Theoretical implications*

These research findings help attain five research purposes. Particularly, this paper successfully validated the model of consumers' engagement with GSMI for sustainability, thereby extending the literature of influencer marketing regarding an environmental aspect of SMIs. This is the first paper integrating two SMI models (e.g., SMI source credibility (Munnukka et al., 2016) and EAM (Le and Ryu, 2023)) and one environmental model (e.g., VBNTE; Stern, 2000) into the S-O-R theory to build up a conceptual model for GSMI. Therefore, SMIs are not only used for enhancing business profits but also raising beneficial activities for community, supporting the world's sustainability, a new aspect in the influencer marketing. Moreover, a comparison between Vietnam and South Korea presents a high applicability of the model across different contexts: developed or developing countries.

Second, this study empirically identifies key determinants of trust in GSMI from the four dimensions of source credibility. While the findings do not fully align with the EAM (Le and Ryu, 2023), they partially confirm the impact of certain source credibility characteristics. In developing markets, trustworthiness appears less critical in building trust among followers, whereas in developed markets, both trustworthiness and expertise seem insignificant in shaping trust. This finding contrasts with the four-source credibility model by Munnukka et al.

(2016), highlighting that the influence of source credibility dimensions varies across different contexts. Although trustworthiness is widely regarded as a fundamental factor in establishing trust, it is not always the primary characteristic that audiences prioritize when evaluating GSMI. Instead, social proof and popularity often outweighs perceptions of honesty. Rather than assessing a GSMI's integrity, followers tend to base their trust on engagement metrics such as likes, shares, and follower counts. Moreover, expertise, similarity, and attractiveness appear to play a more dominant role. Followers tend to place greater trust in GSMI whose values and lifestyles align with their own, fostering a sense of emotional connection. In addition, younger audiences may place greater importance on physical attractiveness, leading them to feel more connected to influencers with appealing appearances. Interestingly, expertise does not significantly influence trust in GSMI among South Korean audiences. This result may stem from a cultural norm that places a higher emphasis on formal qualifications (certificates and degrees) rather than practical knowledge and real-world experience. In addition, while attractiveness is more influential in South Korea, similarity dominates in Vietnam. In a highly individualistic society like South Korea, personal image and self-expression are more emphasized, which may explain the stronger appeal of visually appealing influencers. South Korea's highly developed beauty and celebrity culture may also amplify the impact of attractiveness in shaping trust. In contrast, the dominance of similarity in Vietnam can be explained by a higher level of collectivism and stronger emphasis on harmony and community belonging. In

**a) Vietnam sample**



**b) South Korea sample**

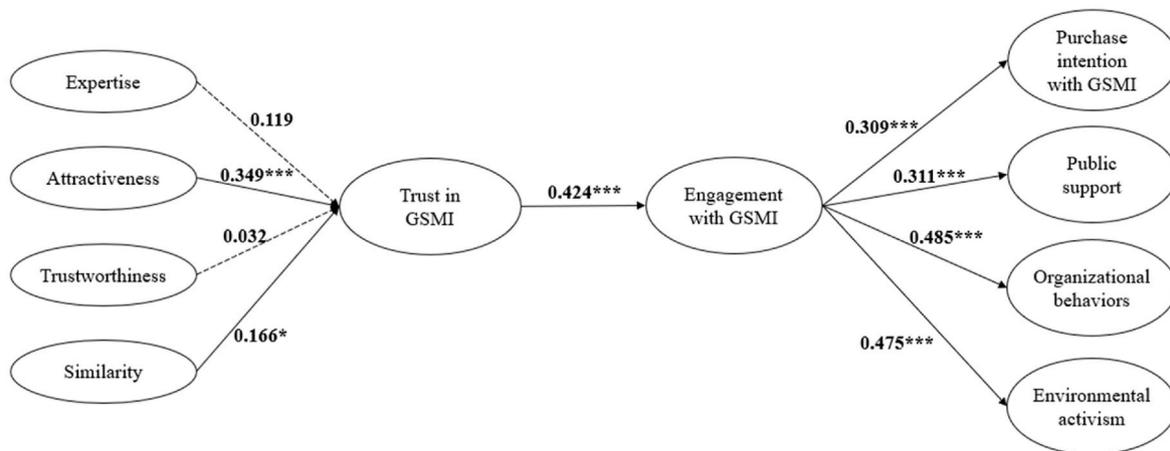


Fig. 2. The SEM testing results.

**Table 5**  
The moderating testing results of environmental knowledge.

Hypotheses	Vietnam							South Korea				
	HIGH		LOW		z-score	HIGH		LOW		z-score		
	B	P-value	B	P-value		B	P-value	B	P-value			
H4a: ENG → PI	0.224	0.014	0.291	0.000	0.603	0.321	0.007	0.365	0.002	0.266		
H4b: ENG → PSU	0.280	0.007	0.233	0.001	-0.374	0.483	0.000	0.082	0.431	-2.549*		
H4c: ENG → EOB	0.409	0.001	0.545	0.000	0.886	0.328	0.000	0.376	0.000	0.471		
H4d: ENG → EAC	0.310	0.000	0.579	0.000	2.364*	0.401	0.000	0.708	0.000	2.140*		

Notes: \* p-value < 0.05.

collectivist cultures, people are more likely to trust and engage with individuals who share similar values, lifestyles, or social identities. Vietnamese followers may therefore be more responsive to influencers who appear identical in social contexts.

Third, the relationship between trust and engagement with GSMI was confirmed in both countries and the relationship between engagement and green behaviors toward GSMI including purchase intention, public support, organizational behaviors, and environmental activism were confirmed. This finding supports the conclusions drawn by Alhumud et al. (2025), Pham and Avnet (2009), Schau et al. (2009), and Knupfer et al. (2023).

Finally, the moderating impact of consumers' environmental

knowledge on the relationship between engagement and consumer green behavior dimensions toward GSMI highlights the importance of followers' knowledge and understanding regarding a certain field that they are interested in and following. This is consistent with the philosophy of Bator and Cialdini (2000) and Mahesh and Ganapathi (2012). Interestingly, individuals with higher environmental knowledge, the is less possibility of increasing their environmental activism from the level of their engagement with GSMI, it may be because of the skepticism toward GSMI. They are often more critical of information sources. They may question the authenticity of GSMI's messages, suspecting green-washing or commercial motives behind their activism. Therefore, even if they engage with a GSMI, they may not be influenced by performing

environmental actions. Moreover, increased environmental knowledge empowers audiences to think and act independently, they understand clearly environmental issues, leading to self-driven actions towards the environmental organizations rather than the content of influencers. This causes insignificant moderating effects of environmental knowledge in influencing how engagement affects purchase intention, public support, and organizational actions.

Interestingly, environmental knowledge positively moderated the effect of engagement on public support for the South Korea sample while it did not in the Vietnam sample. Advanced economies often possess more sophisticated digital infrastructure, impose tighter environmental rules while showing heightened consumer awareness of sustainability matters. Therefore, with a high level of knowledge, South Korean audiences who are more informed by GSMIs will be more motivated to support the environment for the benefits of the community.

### 5.2. Practical implications

Three key managerial insights emerge from the findings of this research in developing influencer marketing strategies aligned with corporate social responsibility.

First, in developing countries, when selecting brand ambassadors, managers should prioritize GSMIs who are visually appealing, stylish, and charismatic. Additionally, these influencers should demonstrate strong knowledge of environmental issues and possess sufficient experience in sustainability-related topics. To establish a sense of similarity, the GSMI should closely resemble their followers – who are the company's target customers – facilitating stronger identification between them and their audiences. In summary, an effective strategy for building trust in GSMIs should integrate three key source credibility's components: attractiveness, expertise, and similarity. For developed markets, the approach differs slightly. Expertise is not a crucial factor, while similarity remains essential but slightly different from the developing market – the GSMI and their followers should share common traits, values, and experiences, ensuring that followers can easily relate to and identify with them.

Second, engagement with GSMIs acts as a major driver of eco-conscious consumer behavior. Therefore, identifying and understanding these engaged consumers is crucial for establishing a successful influencer-driven marketing approach. In developing markets, engaged consumers tend to actively support their GSMIs by commenting or messaging them when environmental issues are discussed. In addition, they frequently interact with GSMIs through various engagement actions on social media (i.e., liking, commenting, and direct messaging). In developed markets, while engagement remains important, the nature of engagement differs slightly. Instead of primarily engaging through social media interactions with likes, messages, or comments, followers are more likely to provide informational support, such as commenting or messaging when GSMIs seek input. Moreover, they actively participate in online campaigns initiated by GSMIs, demonstrating a more action-oriented approach to engagement.

Finally, environmental knowledge is a key construct influencing the success of the influencer-driven marketing strategies. To maximize the impact, segmenting followers based on their level of environmental knowledge and tailoring strategies accordingly is essential. In developing markets, targeting consumers with high environmental knowledge using strategies aimed at boosting environmental activism—such as participating in environmental groups, offering financial contributions, engaging in policy discussions, or supporting eco-friendly political candidates through voting—may be less effective. These individuals may already have established attitudes and behaviors, making it harder to influence them further. Interestingly, in developed markets, Consumers who are both engaged and well-informed about environmental issues tend to be more willing to take financial action (i.e., paying higher taxes or premium prices for environmentally friendly initiatives and products). Therefore, to encourage greater community-driven support,

educating consumers through GSMIs' content is considerably important.

### 5.3. Conclusions

In assessing the measurement, although both country samples retained the same number of items and constructs in the final measurement after the reliability test, slight differences were observed, particularly in the measures of similarity and engagement.

Regarding the main effects, there was a slight variation in hypothesis testing outcomes between the two countries. While eight out of nine hypotheses were supported in the Vietnam sample, only seven were supported in the South Korea sample. Specifically, in the South Korea sample, only two factors—*attractiveness* and *similarity*—significantly influenced trust in GSMIs, with *attractiveness* exerting a much stronger effect than *similarity*. In contrast, for the Vietnam sample, three determinants—*expertise*, *attractiveness*, and *similarity*—significantly contributed to trust in GSMIs. Although *attractiveness* had the strongest effect, the differences among the three were relatively minor. Trust in GSMIs demonstrated a strong positive impact on engagement in both countries. In terms of the four dimensions of consumer green behaviors, engagement had the strongest influence on organizational behaviors in the Vietnam sample, whereas its impact was most pronounced on environmental activism in the South Korea sample.

Regarding the moderating effects of environmental knowledge, while it influenced the impact of engagement on consumer eco-conscious behaviors in both countries, the direction of its impact varied. Among Vietnamese respondents, individuals who are highly engaged with a GSMI but have a strong level of environmental knowledge appear less inclined to participate in environmental activism. In contrast, for South Korean respondents, those with high engagement and strong environmental knowledge are more likely to provide public support but less inclined to participate in environmental activism to support eco-organizations.

### 6. Limitations and recommendations for future direction

First, the reliance on web panel data restricted the sample to individuals already enrolled in the panel, which may reduce the extent to which the results can be generalized beyond the panel such as urban, digitally literate populations. Particularly, such samples may not fully represent individuals with limited internet access or low engagement with digital platforms. To address this issue, the research company was instructed to distribute the survey across major urban areas in Vietnam and South Korea, ensuring a balanced representation of demographic groups. Further research may combine different sampling methods (e.g., both online and offline) to enhance the population generalization.

Second, conducting the survey online made it difficult to confirm whether respondents fully understood the questions, potentially resulting in inconsistent or inaccurate answers—especially for more complicated items. To mitigate this risk, the research team followed a rigorous questionnaire development process aimed at improving clarity and comprehension. This included incorporating a screening question to identify suitable respondents, providing definitions of key constructs and the research topic, explaining the study's objectives, and offering illustrative examples of GSMIs.

Third, since participants were recruited through a pay-per-response system, there was a risk of receiving unqualified responses. To reduce this issue, attention-check (trap) questions were embedded in the questionnaire to identify invalid responses and ensure participants remained attentive throughout the survey process.

Fourth, [Lou and Yuan \(2019\)](#) identified six key components of source credibility: *attractiveness*, *expertise*, *similarity*, *trustworthiness*, *informative value*, and *entertainment value*. Therefore, beyond the four current dimensions, *informative value* and *entertainment value* are two potential determinants of trust in GSMIs. Future research could add these two additional factors into the model to evaluate their potential

effects on trust in GSMIs.

Lastly, while this study offers valuable quantitative insights, future research could employ qualitative methods (e.g., interviews or focus groups) to explore the deeper psychological, emotional, and cultural motivations behind consumers' engagement with GSMIs. Moreover, a qualitative approach could explain why GSMIs' followers are willing to adopt green behaviors more comprehensively by exploring the nature of their interactions with these influencers. It may also help uncover additional influential predictors of green consumer behavior that are not easily captured through quantitative methods. In addition, longitudinal studies could track behavioral changes over time, particularly in how long-term exposure to GSMIs may shape sustained green behavior. For example, a longitudinal study that compares consumer green behaviors before and after the interaction (e.g., green/sustainable contents) with GSMIs could offer a more holistic view of consumer responses to green influencer marketing.

#### CRedit authorship contribution statement

**Puong Van Nguyen:** Writing – review & editing, Supervision, Resources, Project administration, Investigation, Data curation, Conceptualization. **Hoang Tran Phuoc Mai Le:** Writing – original draft, Visualization, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

#### Data availability statement

Authors elect not to share data.

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#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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#### Data availability

Data will be made available on request.

#### References

- Ababneh, O.M.A., 2021. How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *J. Environ. Plann. Manag.* 64 (7), 1204–1226.
- Abate, Y.A., Ukpabi, D.C., Karjaluoto, H., 2025. Eco-influencers: a cross-generational investigation on the role of social media influencer marketing on green destination image. *Tour. Recreat. Res.* 1–21.
- Aboramadan, M., 2022. The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement. *Int. J. Organ. Anal.* 30 (1), 7–23.
- Alhumud, A.A., Leonidou, L.C., Alarfaj, W., Ioannidis, A., 2025. The impact of digital CSR disclosure on customer trust and engagement: the moderating role of consumer deontology and law obedience. *J. Bus. Res.* 186, 115035.
- Aw, E.C.X., Chuah, S.H.W., 2021. "Stop the unattainable ideal for an ordinary me!" fostering parasocial relationships with social media influencers: the role of self-discrepancy. *J. Bus. Res.* 132, 146–157.
- Bator, R., Cialdini, R., 2000. The application of persuasion theory to the development of effective proenvironmental public service announcements. *J. Soc. Issues* 56 (3), 527–542.
- Brochado, A., Teiga, N., Oliveira-Brochado, F., 2017. The ecological conscious consumer behaviour: are the activists different? *Int. J. Consum. Stud.* 41 (2), 138–146.
- Cai, N., Gao, S., Yan, J., 2024. How the communication style of chatbots influences consumers' satisfaction, trust, and engagement in the context of service failure. *Humanit. Soc. Sci. Commun.* 11 (1), 1–11.
- Cascio Rizzo, G.L., Berger, J., De Angelis, M., Pozharliev, R., 2023. How sensory language shapes influencer's impact. *J. Consum. Res.* 50 (4), 810–825.
- Deshpandé, R., Stayman, D.M., 1994. A tale of two cities: distinctiveness theory and advertising effectiveness. *J. Mark. Res.* 31 (1), 57–64.
- Djafarova, E., Rushworth, C., 2017. Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. *Comput. Hum. Behav.* 68, 1–7.
- Dono, J., Webb, J., Richardson, B., 2010. The relationship between environmental activism, pro-environmental behaviour and social identity. *J. Environ. Psychol.* 30 (2), 178–186.
- Erdogan, B.Z., 1999. Celebrity endorsement: a literature review. *J. Market. Manag.* 15 (4), 291–314.
- Fang, X., Shin, S.K., Huang, X., 2025. Enhancing social media engagement: speech act strategies across influencer types. *J. Retailing Consum. Serv.* 84, 104258.
- Fornell, C., Larcker, D.F., 1981. "Evaluating structural equation models with unobservable variables and measurements error. *J. Mark. Res.* 18 (4), 39–50.
- Geiger, S.M., Geiger, M., Wilhelm, O., 2019. Environment-specific vs. general knowledge and their role in pro-environmental behavior. *Front. Psychol.* 10, 405705.
- Goh, S.K., Balaji, M.S., 2016. Linking green skepticism to green purchase behavior. *J. Clean. Prod.* 131, 629–638.
- Gürlek, M., Koseoglu, M.A., 2021. Green innovation research in the field of hospitality and tourism: the construct, antecedents, consequences, and future outlook. *Serv. Ind. J.* 41 (11–12), 734–766.
- Hair, J.F., Anderson, R.E., Babin, B.J., Black, W.C., 2010. *Multivariate Data Analysis: a Global Perspective*, seventh ed. Pearson Education, Upper Saddle River, NJ.
- Heo, J., Muralidharan, S., 2019. What triggers young millennials to purchase eco-friendly products?: the interrelationships among knowledge, perceived consumer effectiveness, and environmental concern. *J. Market. Commun.* 25 (4), 421–437.
- Hewei, T., Youngsook, L., 2022. Factors affecting continuous purchase intention of fashion products on social E-commerce: SOR model and the mediating effect. *Entertain. Comput.* 41, 100474.
- Hollebeek, L., 2011. Exploring customer brand engagement: definition and themes. *J. Strat. Market.* 19 (7), 555–573.
- Hovland, C.I., Weiss, W., 1952. Source credibility and effective communication. *Public Opin. Q.* 16 (1), 635–650.
- Jiang, K., Zheng, J., Luo, S., 2024. Green power of virtual influencer: the role of virtual influencer image, emotional appeal, and product involvement. *J. Retailing Consum. Serv.* 77, 103660.
- Kautish, P., Sharma, R., 2019. Value orientation, green attitude and green behavioral intentions: an empirical investigation among young consumers. *Young Consum.* 20 (4), 338–358.
- Kılıç, İ., Gürlek, M., 2024. Green influencer marketing: conceptualization, scale development, and validation: an application to tourism products. *J. Sustain. Tourism* 32 (10), 2181–2206.
- Kim, D.Y., Kim, H.Y., 2021. Trust me, trust me not: a nuanced view of influencer marketing on social media. *J. Bus. Res.* 134, 223–232.
- Knupper, H., Neureiter, A., Matthes, J., 2023. From social media diet to public riot? Engagement with "greenfluencers" and young social media users' environmental activism. *Comput. Hum. Behav.* 139, 107527.
- Koay, K.Y., Teoh, C.W., Soh, P.C.-H., 2021. Instagram influencer marketing: perceived social media marketing activities and online impulse buying. *First Monday* 26 (9), 1–21. <https://doi.org/10.5210/fm.v26i9.11598>.
- König, S., Maier, E., 2024a. The effect of green influencer message characteristics: framing, construal, and timing. *Psychol. Market.* 41 (9), 1979–1996.
- König, S., Maier, E., 2024b. Preaching to the choir: do green influencers make a difference? *J. Clean. Prod.* 447, 141449.
- König, S., Maier, E., 2024. The effect of green influencer message characteristics: framing, construal, and timing. *Psychol. Market.* 41 (9), 1979–1996.
- Le, H.T.P.M., Ryu, S., 2023. The eWOM adoption model in the hospitality industry: the moderating effect of the vlogger's review. *J. Hospital. Tourism Technol.* 14 (2), 225–244.
- Le, H.T.P.M., Van Nguyen, P., Stokes, P., 2025. Green influencers and consumers' decoupling behaviors for parasocial relationships and sustainability. A comparative study between Korea and Vietnam. *J. Retailing Consum. Serv.* 84, 104256.
- Lee, J.E., Watkins, B., 2016. YouTube vloggers' influence on consumer luxury brand perceptions and intentions. *J. Bus. Res.* 69 (12), 5753–5760.
- Lee, J.W., Kim, Y.M., Kim, Y.E., 2018. Antecedents of adopting corporate environmental responsibility and green practices. *J. Bus. Ethics* 148 (2), 397–409.
- Lee, P.Y., Koseoglu, M.A., Qi, L., Liu, E.C., King, B., 2021. The sway of influencer marketing: evidence from a restaurant group. *Int. J. Hospit. Manag.* 98, 103022.
- Leite, F.P., Baptista, P.D.P., 2022. The effects of social media influencers' self-disclosure on behavioral intentions: the role of source credibility, parasocial relationships, and brand trust. *J. Market. Theor. Pract.* 30 (3), 295–311.
- Lou, C., Kim, H.K., 2019. Fancying the new rich and famous? Explicating the roles of influencer content, credibility, and parental mediation in adolescents' parasocial relationship, materialism, and purchase intentions. *Front. Psychol.* 10, 491161.
- Lou, C., Yuan, S., 2019. Influencer marketing: how message value and credibility affect consumer trust of branded content on social media. *J. Interact. Advert.* 19 (1), 58–73.
- Luarn, P., Chen, C.C., Chiu, Y.P., 2024. Fashion influencers' credibility on Instagram: the stimulus-organism-response (SOR) perspective. *J. Strat. Market.* 1–14.

- Mahesh, N., Ganapathi, R., 2012. Influence of consumer's socio-economic characteristics and attitude on purchase intention of green products. *Int. J. Bus. Manag.* 4 (5), 33–37.
- McQuarrie, E.F., Miller, J., Phillips, B.J., 2013. The megaphone effect: taste and audience in fashion blogging. *J. Consum. Res.* 40 (1), 136–158.
- Mehrabian, A., Russell, J.A., 1974. *An Approach to Environmental Psychology*. The MIT Press.
- Moorman, C., Deshpande, R., Zaltman, G., 1993. Factors affecting trust in market research relationships. *J. Market.* 57 (1), 81–101.
- Morren, M., Grinstein, A., 2016. Explaining environmental behavior across borders: a meta-analysis. *J. Environ. Psychol.* 47, 91–106.
- Munnukka, J., Uusitalo, O., Toivonen, H., 2016. Credibility of a peer endorser and advertising effectiveness. *J. Consum. Market.* 33 (3), 182–192.
- Parguel, B., Benoit-Moreau, F., Larceneux, F., 2011. How sustainability ratings might deter 'greenwashing': a closer look at ethical corporate communication. *J. Bus. Ethics* 102, 15–28.
- Patzer, G.L., 1983. Source credibility as a function of communicator physical attractiveness. *J. Bus. Res.* 11 (2), 229–241.
- Pham, M.T., Avnet, T., 2009. Rethinking regulatory engagement theory. *J. Consum. Psychol.* 19 (2), 115–123.
- Pittman, M., Abell, A., 2021. More trust in fewer followers: diverging effects of popularity metrics and green orientation social media influencers. *J. Interact. Market.* 56 (1), 70–82.
- Rajput, A., Suryavanshi, K., Thapa, S.B., Gahlot, P., Gandhi, A., 2024. The impact of social media influencers on ecoconscious consumers. In: 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS). IEEE, Manama, Bahrain, pp. 1–6.
- Schau, H.J., Muñiz Jr, A.M., Arnould, E.J., 2009. How brand community practices create value. *J. Market.* 73 (5), 30–51.
- Schiappa, E., Allen, M., Gregg, P.B., 2007. Parasocial Relationships and Television: a meta-analysis of the Effects", *Mass Media Effects Research: Advances Through Meta-Analysis*, pp. 301–314.
- Seyal, A.H., Rahman, M.N.A., Rahim, M.M., 2002. Determinants of academic use of the internet: a structural equation model. *Behav. Inf. Technol.* 21 (1), 71–86.
- Shareef, M.A., Kapoor, K.K., Mukerji, B., Dwivedi, R., Dwivedi, Y.K., 2020. Group behavior in social media: antecedents of initial trust formation. *Comput. Hum. Behav.* 105, 106225.
- Sirdeshmukh, D., Singh, J., Sabol, B., 2002. Consumer trust, value, and loyalty in relational exchanges. *J. Market.* 66 (1), 15–37.
- Statista, 2025. *Influencer advertising – worldwide | market forecast*. available at: <https://www.statista.com/outlook/amo/advertising/influencer-advertising/worldwide>. (Accessed 24 February 2025).
- Stern, P.C., 2000. New environmental theories: toward a coherent theory of environmentally significant behavior. *J. Soc. Issues* 56 (3), 407–424.
- Stojanova, S., Zečević, M., Culiberg, B., 2023. From words to deeds: how do knowledge, effectiveness, and personal relevance link environmental concern and buying behavior? *J. Nonprofit & Public Sect. Mark.* 35 (4), 329–353.
- Vicente-Molina, M.A., Fernández-Sáinz, A., Izagirre-Olaizola, J., 2013. Environmental knowledge and other variables affecting pro-environmental behaviour: comparison of university students from emerging and advanced countries. *J. Clean. Prod.* 61, 130–138.
- Vladimirova, K., Henninger, C.E., Alosaimi, S.I., Brydges, T., Choopani, H., Hanlon, M., et al., 2024. Exploring the influence of social media on sustainable fashion consumption: a systematic literature review and future research agenda. *J. Glob. Fashion Market.* 15 (2), 181–202.
- Vrontis, D., Makrides, A., Christofi, M., Thrassou, A., 2021. Social media influencer marketing: a systematic review, integrative framework and future research agenda. *Int. J. Consum. Stud.* 45 (4), 617–644.
- White, K., Habib, R., Hardisty, D.J., 2019. How to SHIFT consumer behaviors to be more sustainable: a literature review and guiding framework. *J. Market.* 83 (3), 22–49.
- Ye, G., Hudders, L., De Jans, S., De Veirman, M., 2021. The value of influencer marketing for business: a bibliometric analysis and managerial implications. *J. Advert.* 50 (2), 160–178.
- Yesiloglu, S., Was, W., 2020. Can you make the world more sustainable with influencers?: exploring consumers' motivations to engage with influencers' sustainable content on Instagram. In: Costello, J., Yesiloglu, S. (Eds.), *Influencer Marketing*. Routledge, London, pp. 136–158.
- Yıldırım, S., 2021. Do green women influencers spur sustainable consumption patterns? Descriptive evidences from social media influencers. *Ecofeminism Clim. Chang.* 2 (4), 198–210.
- Yuan, S., Lou, C., 2020. How social media influencers foster relationships with followers: the roles of source credibility and fairness in parasocial relationship and product interest. *J. Interact. Advert.* 20 (2), 133–147.
- Zacher, H., Rudolph, C.W., Katz, I.M., 2023. Employee green behavior as the core of environmentally sustainable organizations. *Ann. Rev. Organ. Psychol. Organ. Behav.* 10, 465–494.
- Zhao, X., Zhu, Z., Shan, M., Cao, R., Chen, H.A., 2024. "Informers" or "entertainers": the effect of social media influencers on consumers' green consumption". *J. Retailing Consum. Serv.* 77, 103647.
- Zhou, S., Blazquez, M., McCormick, H., Barnes, L., 2021. How social media influencers' narrative strategies benefit cultivating influencer marketing: tackling issues of cultural barriers, commercialised content, and sponsorship disclosure. *J. Bus. Res.* 134, 122–142.