sustainability

MDPI

Article

Digital Social Influence and Its Impact on the Attitude of Organic Product Consumers

Geovanna García-Roldán [1], Nelson Carrión-Bósquez [2,*], Andrés García-Umaña [3,*], Oscar Ortiz-Regalado [4], Santiago Medina-Miranda [4], Rubén Marchena-Chanduvi [5], Mary Llamo-Burga [4], Ignacio López-Pastén [6] and Iván Veas González [2]

1 Facultad de Ciencias Sociales, Educación Comercial y Derecho, Universidad Estatal de Milagro, Milagro 091050, Ecuador; ggarciar@unemi.edu.ec
2 Departamento de Administración, Facultad de Economía y Administración, Universidad Católica del Norte, Antofagasta 1270398, Chile; iveas@ucn.cl
3 Facultad de Administración y Economía, Escuela de Diseño e Innovación Tecnológica, Universidad de Tarapacá, Arica 1000007, Chile
4 Escuela Profesional de Ingeniería en Agronegocios, Escuela Profesional de Agronomía, Universidad Nacional de Cajamarca, Cajamarca 06001, Peru; oortizr@unc.edu.pe (O.O.-R.); smedina@unc.edu.pe (S.M.-M.); mllamob@unc.edu.pe (M.L.-B.)
5 Escuela Profesional de Ingeniería Agroindustrial, Facultad de Ciencias Agrarias, Universidad Nacional Autónoma de Chota, Cajamarca 06001, Peru; rmarchenac@unach.edu.pe
6 Facultad de Economía y Negocios, Universidad Santo Tomás, Antofagasta 1240000, Chile; ilopez7@santotomas.cl
* Correspondence: nelson.carrion@ucn.cl (N.C.-B.); agarciau@academicos.uta.cl (A.G.-U.)

Abstract

Social media has become a tool that exerts a significant influence on consumer behavior. In this sense, this study aims to identify whether digital social influence derived from the informational nature of social media content and online member group support influences the subjective norms and environmental attitudes of organic product consumers. This study was developed using a quantitative, correlational, and cross-sectional design. A total of 371 organic product consumers participated in the study, who were administered a questionnaire consisting of 17 questions measured on a 5-point Likert scale. Statistical analysis was performed using SPSS 24 and Smart PLS, and convergent validity, discriminant validity, and structural equation modeling were applied. The results of the study identified that environmental attitudes continue to be a highly influential factor in organic product purchasing behaviors and that these attitudes are shaped by subjective norms and digital social influencers, such as social media content and online member support groups. Furthermore, the study found that subjective norms mediate the relationship between environmental attitudes and social media content as well as online member support groups. Beyond contributing to the theoretical understanding of environmental attitudes, this study offers practical insights into designing digital marketing strategies that leverage social influence to promote sustainable consumption, particularly in emerging markets.

Keywords: social media content; online member group support; subjective norms; environmental attitude

check for updates

Academic Editor: Ken Peattie

Received: 25 June 2025
Revised: 18 August 2025
Accepted: 20 August 2025
Published: 21 August 2025

Citation: García-Roldán, G.; Carrión-Bósquez, N.; García-Umaña, A.; Ortiz-Regalado, O.; Medina-Miranda, S.; Marchena-Chanduvi, R.; Llamo-Burga, M.; López-Pastén, I.; Veas González, I. Digital Social Influence and Its Impact on the Attitude of Organic Product Consumers. *Sustainability* **2025**, *17*, 7563. https://doi.org/10.3390/su17167563

Copyright: © 2025 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

Within the framework of the contemporary agenda for sustainable development, the United Nations (UN), through the United Nations Development Programme (UNDP), incorporated Sustainable Development Goals (SDGs), which constitute a global call for collective

action to guarantee peace, prosperity, poverty eradication, and responsible environmental management [1–3]. One of the central objectives proposed by the UNDP is to promote responsible production and consumption patterns, driving a profound transformation in the way goods are produced and consumed, to reduce the environmental footprint [4,5]. Along these lines, one of the key strategies to promote sustainable consumption is to encourage the acquisition of products committed to environmental protection, commonly known as "organic products" [6]. From a conceptual point of view, a product is defined as organic when the raw material, its production process, its use, and the post-disposal treatment of its waste are aligned with environmental protection or seek to generate the least possible impact on the environment [7]. On the other hand, other authors consider organic products to be those that are grown without the use of pesticides, synthetic fertilizers, or genetically modified organisms, thus offering a more sustainable product for both the planet and consumers [8,9].

In the context of current environmental challenges and the need to transition toward more sustainable consumption models, social media has established itself as a strategic tool for raising awareness and transforming consumer habits [10,11]. These digital platforms allow the dissemination of content related to environmental protection and facilitate access to information about more responsible alternatives such as organic products [12]. Furthermore, they act as spaces for interaction, where collective discourses are generated, social norms are reinforced, and new attitudes toward ecological consumption are forged [13]. In this sense, social media not only serves an informative function but also exerts a significant influence on the configuration of environmental values, especially among younger and digitally connected consumers, thus contributing to the achievement of the SDGs [14–16].

Today, social media plays a fundamental role in consumer decision-making, directly influencing purchasing choices, perceptions of brands, and the way they interact with companies [17]. According to the Global Digital Landscape Report 2022 [18], Ecuador's population in 2024 reached 18.28 million inhabitants, with 17.56 million active mobile connections, equivalent to 96% of the total population. Similarly, it has been reported that 12.66 million Ecuadorians use social media, representing 69.2% of the total. Among the most used platforms are TikTok with 14.2 million users, Facebook with 13.6 million, Instagram with 6.8 million, LinkedIn with 4.5 million, and X (formerly Twitter) with 3.5 million [13,19]. These data reflect the massive penetration of digital platforms into the daily lives of the population, which reinforces the relevance of investigating how social media influences consumption decisions, particularly in relation to organic products [20].

Although the academic literature has consistently shown that EA and SN are conditioning factors in the PBOP [9], studies that deepen the previous factors that mold these EA are still limited [21]. Therefore, analyzing the role of SN is crucial in studies aimed at understanding the purchase behavior of organic products [12,20]. Considering the above, this study aims to identify whether Digital Social Influence derived from the information of SMC, such as articles, images, videos, programs, advertisements, or brochures, and OMGS, such as advice and interactions with friends on social media, influence the SN and EA of consumers of organic products.

To address the research objective, this study poses the following sub-questions: (a) Does EA influence PBOP? (b) Does SN influence EA? (c) Does SMC directly influence EA or is this effect mediated by SN? (d) Does OMGS directly influence EA or does it do so through the mediating role of the SN?

2. Literature Review

Several theoretical models have been proposed to explain consumer behavior and the development of environmental attitudes, including the Theory of Planned Behavior,

the Norm Activation Model, and the Value-Belief-Norm Theory. While these frameworks emphasize internal cognitive or normative processes, they often overlook the role of external digital stimuli, such as social media interactions or peer influence in online environments. In this context, the stimulus-organism-response (SOR) model offers a valuable extension by accounting for both external and internal environmental stimuli. Therefore, this study adopts the SOR framework to examine how stimuli, such as digital social influences, affect organisms, such as environmental attitudes, and subsequently, responses to green purchasing behavior.

2.1. Stimulus-Organism-Response Model

The SOR model is considered a significant paradigm for exploring people's reactions to stimuli [22–25]. Within the context of environment-related consumption, this theoretical model seeks to broaden the understanding of how environmental stimuli affect consumer perceptions, which in turn leads to the generation of consumer responses [26]. Although the SOR model has been widely adopted to identify consumer behavior in different traditional marketing contexts, its application in the fields of environmental concerns and the adoption of green products is limited [27].

The stimulus represents any external factor (message, environment, or interaction) that generates a reaction in the individual [22,28]. The organism corresponds to cognitive and emotional processes such as perceptions, beliefs, and attitudes [24,25]. The response is the resulting observable behavior, such as the purchase decision [29]. In the field of sustainable marketing, this approach is useful for understanding how environmental or social messages generate pro-environmental attitudes that influence the purchase of organic products [30].

This study adopts the SOR model to analyze the influence of social media on the behavior of organic product consumers. In this framework, stimuli are represented by SMC, OMGS, and SN, which act as external influences perceived by the individual. An organism is represented by the consumer's EA. Finally, the response corresponds to PBOP. This framework seeks to comprehensively understand how the digital environment can shape the attitudes and decisions of consumers regarding organic products.

2.2. Purchasing Behavior of Organic Products

The PBOP refers to the process by which consumers decide to purchase goods produced under certified organic standards without the use of pesticides, chemical fertilizers, or genetically modified organisms [31,32]. This purchasing behavior integrates cognitive, affective, and behavioral aspects, as it responds not only to the need for consumption but also to beliefs, attitudes, and values related to personal health, environmental sustainability, and social responsibility [33,34]. From a consumer behavior perspective, the decision to purchase organic products is not limited solely to the price or availability of the product [9] but also involves an ethical and functional evaluation of the impact of such consumption on health and environmental protection [1,3,4,8,19,21,27].

Within the context of consumer behavior, the relevance of analyzing PBOP lies in their potential to promote more sustainable and responsible consumption patterns in a global context marked by environmental crises and demands for cleaner and safer production systems [35,36]. Understanding this behavior allows researchers, public policymakers, and companies in the sector to identify the factors that motivate or inhibit the transition toward more conscious consumption, thus promoting organic production practices and collective health [5,6,13,21].

Various studies have identified multiple factors that influence PBOP, with EA being one of the most prominent [5,9,13,37–39]. This reflects that consumers' level of concern

for the environment and their willingness to act on that concern favor product choices aligned with environmental protection [32,36]. However, EA does not act in isolation, demonstrating the need to identify the factors that precede EA [21] and propose new hypothetical models that allow us to identify the role of social media in PBOP [12,20].

2.3. Environmental Attitude

EA can be defined as a person's psychological and emotional predisposition toward environmental care, which manifests in beliefs, feelings, and behaviors aimed at protecting and conserving natural resources [31,38,40,41]. This attitude is formed over time through the interaction of individual, social, and cultural factors and is expressed in opinions on ecological issues, the appreciation of sustainable practices, and the willingness to make personal changes to the environment [42–44]. In the realm of consumer behavior, EA acts as an evaluative filter that influences the perception and evaluation of products, especially those associated with ecological benefits, such as organic products [37–39].

EA plays a central role in explaining why consumers choose organic products, as it represents a motivational variable that connects ecological awareness with concrete purchasing decisions [37,38,45]. This attitude not only facilitates identification with sustainable values but also generates coherence between consumer thought and action [39,46,47]. Consequently, those with positive EA tend to prefer products that are considered less harmful to the ecosystem, even if they are more expensive or require additional effort to acquire [9,48,49]. In this sense, EA not only predicts purchasing behavior but also contributes to building a culture of responsible and ethical consumption [42].

Previous research has consistently recognized EA as a key factor in intention and PBOP [6,21,50,51]. Studies have shown that consumers with greater environmental sensitivity tend to have a stronger inclination toward organic consumption options [52]. Furthermore, over time, it has been observed that this attitude can be shaped by environmental education, personal experiences, the influence of social groups, and exposure to awareness campaigns [4,53,54]. As this study seeks to identify the antecedents that influence consumers' attitudes toward organic products, it is assumed that attitudes influence purchasing behavior. Therefore, the following hypothesis is sought to be ratified:

H1. *EA influences PBOP.*

2.4. Subjective Norms

SN refers to a person's perception of the social pressure they receive to perform a certain behavior [21,40]. This construct recognizes that individual decisions are not made in isolation but rather are based on perceptions of their social environment as family, friends, cultural references, or society in general [9,55–57]. Therefore, SN reflects the perceived normative influence of significant others, whose judgment and approval are valued by a consumer [58], which can influence both the formation and execution of behavioral intentions [59].

In the context of organic product consumption, SN plays a fundamental role, as many purchasing decisions are influenced by shared values and social approval [60]. When consumers perceive that their environment positively values the consumption of environmentally friendly products, they are more likely to be motivated to adopt such behaviors to reinforce social acceptance and maintain consistency with their reference group [39]. In this way, the SN acts as an external driver that complements internal motivations, such as EA or beliefs about health and sustainability [61–63].

While the literature on the influence of SN on purchasing behavior is extensive and well documented [9,21], their specific impact on EA has been poorly explored, revealing through the literature review that few studies have determined that SN influence EA [64–67].

Most studies have focused on examining how these norms directly influence purchase intention, neglecting their potential role in shaping prior attitudes, such as environmental concerns [51,55–57]. Although a recent study found that SN mediates the relationship between social media and purchase intentions for organic products [13], there is a lack of studies that have identified whether social pressure received via social media can shape consumers' attitudes toward organic products. To provide empirical evidence that contributes to the gaps identified, this study seeks to test the following hypothesis:

H2. *SN Influence the EA of Organic Product Consumers.*

2.5. Social Media Content

SMC refers to the quality, clarity, usefulness, and relevance of the information received through digital platforms, such as Facebook, Instagram, TikTok, and others [68–70]. This variable is not limited solely to the volume of shared content but focuses on the cognitive value such content has for the user, especially in relation to consumer decisions [71,72]. SMC is considered informative when it allows the recipient to understand product characteristics, learn about associated benefits, compare alternatives, and make informed decisions [73]. In this sense, SMC acts as a key cognitive resource within the digital environment, influencing attitudes, perceptions, and purchasing behaviors [74].

Within the context of green consumption, SMC has special relevance, as it can significantly contribute to the formation of pro-environmental beliefs [13]. Consumers are often exposed to posts, testimonials, reviews, campaigns, and news related to sustainable products, the impact of which directly depends on the comprehensibility and credibility of the information conveyed [69,75,76]. In this context, informative content can facilitate the adoption of eco-friendly behaviors by reducing uncertainty, increasing consumer knowledge, and strengthening attitudes toward responsible choices [20,77]. Furthermore, social influence is enhanced when the content comes from people with whom the user identifies, which reinforces trust in the message and increases the likelihood of replicating the observed behaviors [78].

Despite the growing relevance of social media as a channel for influence and information dissemination [10,17,71,73,74], few studies have specifically examined how the informative content of these platforms shapes purchasing decisions for organic products. Consequently, it is necessary to study whether content transmitted through social media has the capacity to transform behaviors toward sustainable consumption. To address this gap and explore its relevance in the context of organic purchasing, the following hypothesis is proposed.

H3. *SMC influences the EA of organic product consumers.*

H3a. *SMC influences the SN of organic product consumers.*

H3b. *SMC influences the EA of organic product consumers through the mediating effect of SN.*

2.6. Online Member Group Support

The OMGS variable refers to the virtual groups or online communities to which consumers belong and are formed around shared interests, common values, or specific affinities [79,80]. These groups can be found on platforms such as Facebook, Instagram, TikTok, or other social media platforms that facilitate interactions between members, circulation of information, exchange of opinions, and generation of symbolic ties [69,70]. Through the interaction of OMGS, individuals not only access recommendations and experiences from other users but also construct digital social identities that influence their

beliefs, attitudes, and decisions [73–81]. Belonging to these groups can generate a sense of community that acts as a normative and affective environment with a significant impact on consumer behavior [82].

In the context of green consumption, OMGS have become key spaces for promoting sustainable practices, disseminating organic products, and constructing shared meanings about what it means to be a responsible consumer [83,84]. These groups allow their members to become informed, inspired, and validate their purchasing choices through perceived social support [85]. Constant interactions in these communities reinforce pro-environmental beliefs and attitudes, while generating a sense of belonging that can encourage behaviors consistent with the group's values [86,87]. Therefore, OMGS functions not only as communication channels but also as true agents of social influence that can shape the intentions and behavior of green consumers [88].

Despite the growing visibility of OMGS as an influential environment within the digital ecosystem, scientific literature on their specific impact on PBOP remains limited [89]. Most research has addressed the role of social media from an individual perspective without considering the collective effect of active participation in digital communities on consumer attitudes and decisions. This gap highlights the need to examine whether constant interactions with like-minded members and exposure to environmentally responsible discourse in these groups can enhance commitment to green consumption. Consequently, to explore this relationship empirically, the following hypothesis is proposed.

H4. *OMGS influences the EA of organic product consumers.*

H4a. *OMGS influences the SN of organic product consumers.*

H4b. *OMGS influences the EA of organic product consumers through its mediating effects.*

2.7. Research Model

Although previous studies have explored the role of EA and SN in predicting green purchasing behavior, most have analyzed these variables independently or have focused on direct effects. This study provides a novel contribution by integrating the SOR model to examine the indirect effects of digital social influence operationalized through SMC and OMGS on EA via the mediating role of SN. Moreover, unlike prior research, predominantly conducted in developed economies, this study focuses on Ecuadorian consumers, offering insights into digital influence in an emerging market context. However, the inclusion of OMGS as a social stimulus also provides an underexplored perspective on the mechanisms that shape pro-environmental attitudes. Figure 1 illustrates the proposed model.

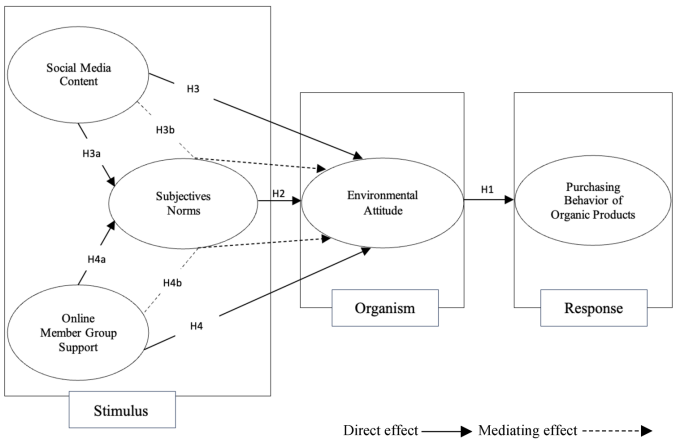

Figure 1. Research hypothesis model.

3. Materials and Methods

3.1. Instrument Design and Data Collection

To verify the validity of the hypothesized model empirically, a quantitative correlational study with a cross-sectional design was conducted using a 16-item questionnaire adapted to Spanish. This questionnaire was administered to consumers identified as consuming organic products. Prior to data collection, the survey was validated by two experts (one in Marketing and one in Research Methodology); and no objections were received. After obtaining experts' approval, a pilot test was conducted with 25 participants to demonstrate that the questions were clear to the respondents.

The study sample consisted of 371 valid responses obtained from 396 questionnaires distributed among Ecuadorian consumers, representing a 93.7% effectiveness rate. The survey was conducted using an online self-administered questionnaire, and the responses were carefully screened to exclude incomplete or inconsistent entries. Participants were selected using non-probability convenience sampling to obtain an accessible and viable sample. The study population consisted of undergraduate and graduate students who indicated that they had consumed organic products through a filter question on the questionnaire. The inclusion criteria were as follows: respondents who were at least 18 years old and had purchased organic products in the last month. A survey was conducted using Google Forms. The evaluation and validity of the structural model were analyzed using Smart PLS 4.

3.2. Measures

The items for each variable were adapted based on measurement scales used in previous studies. A five-point Likert scale was used: 1 = "strongly disagree" and 5 = "strongly agree." One question was used to measure PBOP, four questions were adapted to measure EA [9], four questions to measure SN, four questions to measure SMC [16], and four questions to measure OMGS [80]. See Appendix A.

3.3. Statistical Procedure

In order to estimate and evaluate the hypothesized model, this study employed the Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach [90]. The hypothesized model was estimated using this statistical technique. Model evaluation was conducted following the methodological procedures and critical values proposed by Hair et al. [91]. Unlike covariance-based SEM (CB-SEM), the PLS-SEM approach does not require strict assumptions regarding the distribution of residuals, allows for the use of formative or reflective measurement scales, and is more suitable for moderate-sized samples. Furthermore, it is considered appropriate for analyzing complex models that integrate theoretical relationships and empirical data. In accordance with the methodological recommendation of Leguina [92], a two-stage approach was adopted, in which the measurement model was evaluated to verify internal consistency, convergent validity, and discriminant validity. In the second stage, the structural model was evaluated to verify the hypotheses raised using PLS-SEM.

4. Results

4.1. Demographic Characteristics of the Participants

The study sample consisted of 371 respondents, distributed across different cities in Ecuador. The results showed a relatively balanced representation among the four cities considered the most populated in Ecuador. Santo Domingo had the largest number of participants: 106 (28.6%), followed by Cuenca: 99 (26.7%), Quito: 92 (24.8%), and Guayaquil: 74 (19.9%). This geographical diversity allows for the capture of perceptions from different

urban contexts, which contributes to a better understanding of the phenomenon in different social and digital environments.

Regarding gender, the sample was almost equally distributed between men: 178 (51.2%) and women: 190 (48.8%), with three people identifying with another gender (0.8%). This distribution helped avoid significant gender bias in the assessment of digital influence on organic consumption behavior. However, in terms of age, a high proportion of centennials stood out, representing 159 people (42.9%), which is consistent with the study's objective, considering that this generation has a high level of exposure to and participation in social media. This was followed by 71 younger millennials (19.1%), 68 older millennials (18.3%), 31 mid-millennials (8.4%), and, to a lesser extent, 42 members of Generation X (11.3%). This age composition is particularly valuable for analyzing how the dynamics of digital influence vary between digital native and migrant generations.

Finally, 277 participants reported having a bachelor's degree (74.7%), while 94 had postgraduate training (25.3%). This high academic level suggests an audience with greater critical analysis skills and greater exposure to environmental and sustainable consumption information, which strengthens the relevance of the study in contexts in which knowledge and education can moderate the effects of digital social influence. The demographic results are presented in Table 1.

Table 1. Demographics.

Characteristics	Category	N	%
Residence	Cuenca	99	26.7
	Guayaquil	74	19.9
	Quito	92	24.8
	Santo Domingo	106	28.6
Gender	Male	178	51.2
	Female	190	48.8
	Other	3	0.8
Age range	1978 or earlier (X Generation)	42	11.3
	Between 1979 and 1988 (Older Millennials)	68	18.3
	Between 1989 and 1994 (Mid Millennials)	31	8.4
	Between 1995 and 2000 (Younger Millennials)	71	19.1
	After 2000 (Centennials)	159	42.9
Educational Level	Bachelor's degree	277	74.7
	Postgraduate degree	94	25.3

4.2. Baseline Transparency Supports Distributional Assessment

To provide baseline transparency and support the validation of distributional assumptions, descriptive statistics were computed for all latent variables using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The results indicate that OMGS achieved a mean of 4.2 with a standard deviation of 0.5, suggesting high agreement and low dispersion among respondents. The SN presented a mean of 3.6 with a standard deviation of 0.9, reflecting greater variability. SMC reported a mean of 4.1 with a standard deviation of 0.7, and EA showed a mean of 4.0 with a standard deviation of 0.8, indicating generally favorable perceptions across the constructs, with standard deviations within acceptable limits, supporting the assumption of a normal distribution required for subsequent analyses.

4.3. Estimation of the Measurement Model

Statistical tests, such as Cronbach's alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE), were applied to assess the reliability and convergent

validity of the hypothesized model. As shown in Table 2, the values obtained for AC and CR exceeded the threshold of 0.70, which meets the criteria established in specialized literature [91]. Similarly, the standardized factor loadings of the indicators exceeded 0.70 [93], which provided additional evidence of the adequate reliability of the study variables. Convergent validity was confirmed by verifying that the AVE values were greater than 0.50, which represents the minimum acceptable level of convergence between the items of the same construct, as indicated by Hair et al. [91]. Therefore, the results reflect satisfactory internal consistency and convergent validity.

Table 2. Convergent validity and reliability.

Variable	Item	Loading Factor	AC	CR		AVE
				rho_a	rho_c	
Environmental Attitude	AC1	0.913	0.892	0.892	0.892	0.822
	AC2	0.921				
	AC3	0.886				
Subjective Norms	SN1	0.899	0.858	0.859	0.914	0.779
	SN2	0.872				
	SN3	0.877				
Social Media Content	SMC1	0.836	0.847	0.853	0.897	0.686
	SMC2	0.813				
	SMC3	0.780				
	SMC4	0.880				
Online Member Group Support	OMGS1	0.761	0.775	0.789	0.853	0.592
	OMGS2	0.783				
	OMGS3	0.778				
	OMGS4	0.756				
Purchasing Behavior of Organic Products	PBOP1	1	1	1	1	1

Note: AC4 and NS4 were excluded from convergent validity due to their low factor loading.

To test discriminant validity, the criterion proposed by Fornell and Larcker [93] was used, which established that the square root of the AVE for each construct must be greater than its correlations with the others. As detailed in Table 3, all the square roots located on the main diagonal exceeded the correlations between the pairs of variables in the hypothesized model, supporting discriminant validity between the constructs. Similarly, the heterotrait–monotrait ratio (HTMT) index was applied, whose maximum acceptable value, according to the literature, must not exceed 0.90. All the HTMT values obtained were below this threshold, further reinforcing the discriminant validity of the measurements used in the model. Convergent and discriminant validities are shown in Tables 2 and 3, respectively.

Table 3. Discriminant validity.

Variables	AC	SN	SMC	OMGS	PBOP
AC	0.906	0.694	0.823	0.737	0.656
SN	0.607	0.882	0.762	0.559	0.589
SMC	0.716	0.653	0.828	0.829	0.552
OMGS	0.627	0.481	0.684	0.769	0.523
PBOP	0.620	0.545	0.510	0.469	1

Note: Fornell and Larcker on the diagonal; HTMT values above the diagonal; Correlations below the diagonal.

4.4. Structural Equation Modeling (SEM): Model Fit and Hypothesis Testing

Once the psychometric properties of the instrument were analyzed, the structural model was estimated. SmartPLS software [89] was used to apply a bootstrap resampling

procedure with 5000 samples to evaluate the proposed causal relationships and determine their levels of statistical significance. Furthermore, the tool allows the explained variance of the dependent variables to be calculated based on the predictor variables and other relevant variables in the model [94]. On the other hand, to evaluate potential multicollinearity, variance inflation factor values were assessed for all predictor variables. All values were below 3.3, indicating the absence of multicollinearity concerns. In addition, mediation effects were tested using bootstrapping with 5000 iterations. In addition, the effect sizes (f^2) were calculated for each structural path, revealing small-to-medium effects according to the thresholds suggested by Hair et al. [91], thus reinforcing the explanatory strength of the proposed model.

The predictive capacity of the structural model was initially assessed using R^2 values following the criteria established by Falk and Miller [95], who indicated that an acceptable R^2 value must be greater than 0.10. Otherwise, even if statistically significant, it does not meet the acceptance standards. Additionally, the Standardized Root Mean Square Residual (SRMR) index was calculated as a measure of model fit. According to Henseler et al. [96], the SRMR is a useful indicator for avoiding misspecification in PLS-SEM models, and values below 0.08 are considered evidence of good model fit [91].

Finally, the results regarding the relationships between the five variables of the hypothesized model allowed us to accept seven hypotheses and to reject one. The estimates obtained through PLS-SEM revealed that EA significantly influenced PBOP ($\beta = 0.419$, $p < 0.001$), SN significantly influenced EA ($\beta = 0.218$, $p < 0.001$), SMC significantly influenced EA ($\beta = 0.402$, $p < 0.001$) in SN ($\beta = 0.609$, $p < 0.001$), and SN mediated the relationship between SMC and EA ($\beta = 0.139$, $p < 0.001$). On the other hand, OMGS significantly influenced EA ($\beta = 0.242$, $p < 0.001$) but not SN ($\beta = 0.065$, $p < 0.296$), but SN was found to mediate the relationship between OMGS and EA ($\beta = 0.015$, $p < 0.001$). See Table 4 and Figure 2.

These results allowed us to accept seven hypotheses and reject one, as shown in Table 4 and Figure 2. To ensure the robustness of the model and assess potential confounding influences, control variables, including sex, age, and education level, were incorporated into the structural model as predictors of EA, SN, and PBOP. Regression analyses revealed that these control variables had no statistically significant effects on EA and PBOP. However, age showed a modest but significant negative effect on SN ($\beta = -0.071$, $p < 0.05$), indicating that younger participants perceived a slightly higher social pressure to engage in environmentally responsible behaviors. These findings support the validity of the model specification and confirm that the hypothesized relationships remain stable after controlling for the key sociodemographic factors.

Table 4. Results of hypotheses testing.

Hypotheses	Relation	β	*p*-Values	Hypotheses
H1	EA-PBOP	0.419	0.000	Accepted
H2	SN-EA	0.218	0.000	Accepted
H3	SMC-EA	0.402	0.000	Accepted
H3a	SMC-SN	0.609	0.000	Accepted
H3b	SMC-NS-EA	0.139	0.000	Accepted
H4	OMGS-EA	0.242	0.000	Accepted
H4a	OMGS-SN	0.065	0.296	Rejected
H4b	OMGS-NS-EA	0.015	0.000	Accepted

R^2PBOP (0.428), R^2EA (0.575), R^2SN (0.426); SRMR: 0.068.

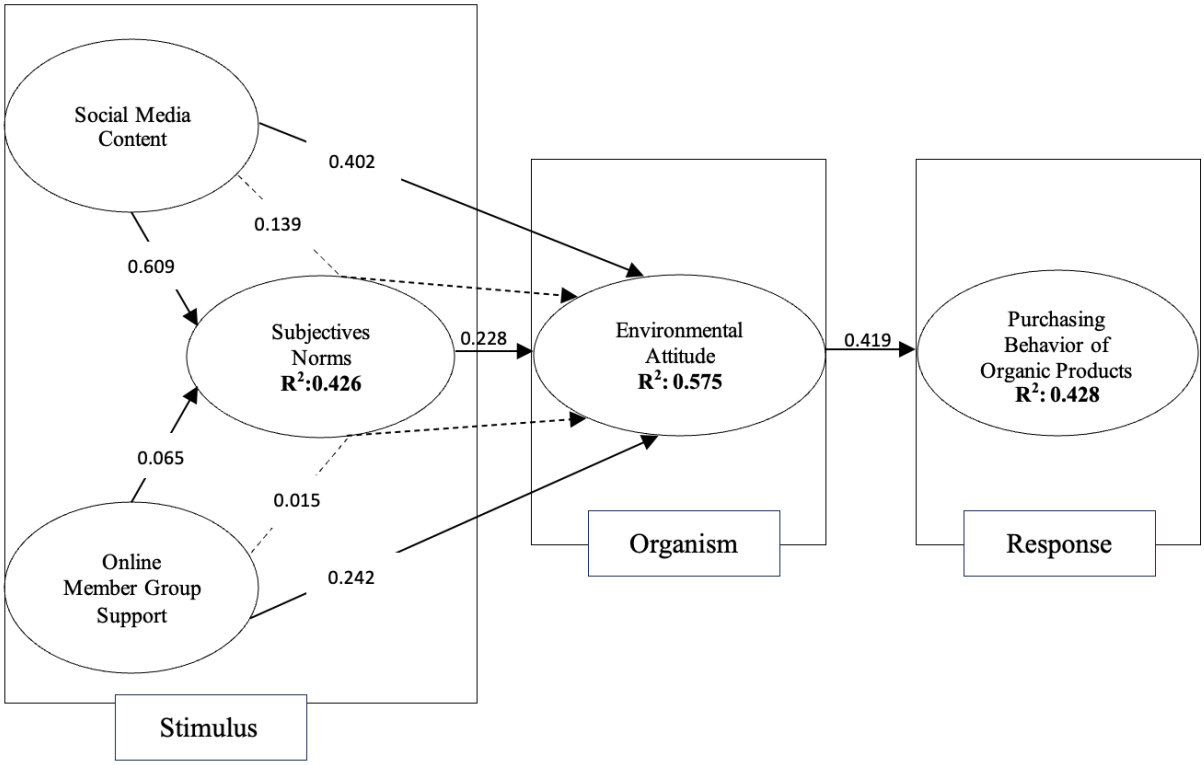

Figure 2. β values hypothesized model.

5. Discussion

To facilitate the understanding of the findings of the present study, the discussion is presented in terms of answering the research sub-questions: (a) Do EA influence PBOP? (b) Does SN influence EA? (c) Does SMC directly influence EA or does it do so through the mediating effect of SN? (d) Does OMGS directly influence EA or does it do so through the mediating effect of SN?

5.1. Influence of EA on PBOP

The results obtained through statistical analysis confirm that EA significantly influences PBOP, thus supporting H1. This finding reaffirms the statements made in the academic literature, which have determined that consumers who value environmental protection, perceive ecological benefits in organic consumption, and express an active preference for sustainable alternatives are more likely to transform their beliefs into concrete purchasing decisions [6,38,40]. This finding supports previous research that has documented the link between EA and PBOP, showing that consumers with strong pro-environmental attitudes are more likely to make sustainable purchases, even when facing barriers such as price or availability [9,28,48]. This corroborates the findings of Ogiemwonyi et al. [42], who confirmed that EA is one of the intrinsic factors that strongly influences PBOP (95). This relationship can be explained by a cognitive-affective approach, where positive attitudes towards the environment not only reflect ecological awareness but also a behavioral predisposition consistent with these values [37,39]. In this sense, the literature indicates that the greater the perception of the positive environmental impact associated with organic consumption, the greater the willingness to change purchasing habits, even in the face of barriers such as price or availability [9,21,48,49]. In this sense, EA acts as an internal engine that drives responsible behaviors, evidencing that concern for the natural environment becomes a relevant criterion in consumer decision-making [4,52–54]. This

finding reinforces the importance of strengthening environmental education and green communication as key tools to promote sustainable changes in consumption patterns.

5.2. Influence of SN on EA

The statistical analysis developed in this study enabled us to determine the acceptance of H2. That is, SN significantly influences the EA of organic product consumers. Therefore, the determining role of perceived social pressure in the configuration of pro-environmental attitudes was evident, which corroborates recent research conducted in emerging markets that has shown that SN acts as a catalyst for the internalization of sustainable values, especially when conveyed through social media and reference groups [71,76]. Moreover, perceived social pressure can influence consumers' EA and, consequently, their purchase intention for environmentally identified products [14]. From a psychosocial perspective, this result is based on the assumption that individuals adjust their beliefs and attitudes based on the expectations of their relevant social environment, such as family, friends, or influential people on social media [9,55–57]. When the immediate environment explicitly or implicitly expresses a positive assessment towards sustainable lifestyles, this generates a normative effect that strengthens the internalization of ecological attitudes [61–63]. In this sense, EA does not arise solely as a result of individual convictions but is modulated by the social validation that the subject perceives regarding environmentally responsible behaviors [21,40]. This finding reinforces the arguments of some scholars who support the determination that NS acts as a key determinant in shaping attitudes by signaling what is socially desirable or approved [64–67]. In the current context, where social media amplifies discourses on sustainability, these norms exert an even more direct influence on the formation of EA, transforming social pressure into a catalyst for personal ecological commitment [13].

5.3. Direct Influence of SMC on EA and Mediating Effect of SN on the Relationship Between SMC and EA

The statistical analyses developed in this study support H3, confirming that SMC directly influences the EA of consumers of organic products. This result supports the idea that frequent exposure to sustainable content (related information, images, programs, and institutional messages) in digital environments strengthens individuals' ecological beliefs and values [13,69], and supports evidence from research indicating that exposure to digital content on sustainability shapes consumers' EA [13] and that user-generated content and opinion leaders on social media not only educate but also establish normative references that influence the adoption of green lifestyles [20,77]. Within the framework of the Stimulus-Organism-Response (SOR) model, SMC acts as an external stimulus that, when processed by the organism (attitudes), promotes a favorable cognitive and affective disposition toward the environment [10,73]. This type of content not only provides information but also mobilizes emotions, reinforces a sense of urgency in the face of an environmental crisis, and legitimizes responsible consumption as desirable behavior [17,74]. Therefore, its direct influence on EA demonstrates the power of SMC as a channel for ecological socialization and a platform for cultural transformation toward more sustainable practices [76,78].

This study confirms that H3a. Therefore, the direct influence of SMC on SN is accepted, thus confirming that SMC also significantly and directly influences SN configuration. This corroborates studies showing that when consumers are exposed to posts, testimonials, reviews, campaigns, and news related to sustainable products, their behavioral patterns align with the norms established by a social group [69,75,76], suggesting that digital content related to sustainability shapes their perceptions of the prevailing social attitudes in their immediate environment [71,72]. Considering the above, the constant exposure to positive messages about green lifestyles by family, friends, and contacts on digital platforms

reinforces the idea that responsible consumption is socially approved and valued [76]. Thus, social media not only educates but also normalizes certain behaviors by presenting sustainability as a shared ideal [69]. This finding is consistent with those of other researchers, who support that SN arises from the perception of what others think or do, with social media being an increasingly influential scenario in this construction [13].

However, this study confirmed the acceptance of H3b, which verifies the mediating effect of SN on the relationship between SMC and EA. In this sense, it is confirmed that the pro-environmental content to which individuals are exposed in social media, in addition to directly impacting their EA [10], also does so through its influence on the perception of positive social pressure towards sustainable behavior [9,21]. That is, social media acts as a catalyst for attitudinal change not only through what they communicate, but also through how they modify the individual's perception of their social environment, generating a normative effect that strengthens the internalization of ecological values [14,16,17]. This mediation reinforces the E-O-R model by showing how stimulus as SMC can activate SN [20,58], which in turn strengthens the internal processes of the organism as EA [9]. This exposes a relevant finding for the design of communication strategies in sustainability, since it shows that attitude change is more effective when the environmental message resonates in the receiver's social environment.

5.4. Direct Influence of OMGS on EA and Mediating Effect of SN on the Relationship Between OMGS and EA

The statistical analyses applied in this study corroborate the acceptance of H4, demonstrating that OMGS directly influences the EA of consumers of organic products. This finding supports previous studies indicating that the opinions of individuals within a consumer's close circle significantly influence the adoption of EA [79,80,82], and that recommendations and interactions generated among members of a social network foster consumer awareness and motivate them to adopt favorable attitudes toward environmental protection [69,70]. This suggests that positive social interactions on digital platforms, such as attention received, recommendation of organic products, and constructive feedback, contribute to the formation of favorable beliefs and values towards the environment [79,80]. From the perspective of the Stimulus-Organism-Response (S-O-R) model, OMGS operates as a social stimulus that reinforces self-efficacy, the validation of ecological behaviors, and the sense of belonging to a community with sustainable interests, thus promoting a more committed attitude towards the environment [69,70,73–81]. This type of influence, being closer and more personalized, makes it easier for consumers to perceive responsible consumption as part of their identity and not just as a passing trend, strengthening their environmental convictions and predisposing them towards behavior aligned with sustainability [82].

Contrary to expectations, the empirical results of this study do not support the significant direct influence of OMGS on SN, leading to the rejection of H4a. Thus, contradicting studies have found that constant interaction within communities reinforces normative beliefs and creates a sense of belonging that fosters behaviors aligned with the values of a social group [86,87]. This result can be interpreted as a functional differentiation between social support and normative pressure [85]. Although consumers may receive emotional support or helpful recommendations from their digital contacts, this does not necessarily modify their perception of what others consider socially acceptable or desirable in terms of green behavior [13]. That is, the support received may be focused on individual well-being or shared consumption experiences, but it does not imply that the environment explicitly expresses an expectation of sustainable behavior [75,83,84]. This suggests that OMGS plays a more affective and instrumental role than a normative one and that the formation of

SN requires clearer and more explicit social signals about what relevant groups consider valuable beyond interpersonal support [79,80].

Despite the absence of a direct relationship between OMGS and SN, the results show a significant indirect effect of OMGS on EA mediated by SN, which allows us to accept Hypothesis H4b. This indicates that although OMGS does not directly strengthen the perception of social pressure, it can contribute to greater exposure to sustainable behaviors within the group, which, over time, influences normative perceptions [83,85]. Consequently, this renewed perception of what is socially desirable facilitates the formation of stronger EA [86,87]. This mediating effect reveals that OMGS can act as a silent trigger that indirectly shapes what individuals consider socially approved [73], thus influencing their attitudinal orientation [69]. In this framework, social media functions as a bridge that transforms interpersonal support into attitudinal change, reinforcing the complexity of the social processes that shape environmental awareness in digital contexts [13].

6. Conclusions

The purpose of this study was to identify whether digital social influence exerted through SMC (articles, images, videos, programs, advertisements, or brochures) and OMGS (advice and interactions with friends on social media) impacts the SN and EA of organic product consumers. Empirical findings support the assertion that both digital influence components play a determining role in shaping pro-environmental attitudes and beliefs. First, it was found that EA directly influences PBOP, and that this attitude is significantly determined by SN, validating the importance of perceived social influence. Furthermore, SMC had a direct effect on both EA and SN, and SN significantly mediated the relationship between SMC and EA, demonstrating that digitally disseminated ecological messages not only inform but also shape what is considered socially desirable. On the other hand, although OMGS had a direct positive effect on EA, it did not show a direct influence on SN, suggesting that this type of support operates more as an emotional and practical reinforcement than normative pressure. However, SN mediates the relationship between OMGS and EA, revealing that the digital environment influences the construction of ecological behaviors in a complex and multifaceted manner. Taken together, these results show that digital social influence not only acts as an information channel but also as a persuasive ecosystem capable of shaping attitudes, social perceptions, and sustainable consumption decisions.

In conclusion, the findings of this study are consistent with prior studies that underscore the role of SN and digital influence in shaping pro-environmental attitudes. However, our study adds to the literature by demonstrating the specific impacts of OMGS and SMC in the context of organic product consumption in Ecuador. These insights suggest that marketing strategies aimed at promoting sustainable behavior should incorporate community-driven and content-rich online engagement to reinforce SN and EA.

6.1. Theoretical, Practical, and Social Implications

This study contributes to the theoretical understanding of consumer behavior in the context of sustainable consumption by integrating the Stimulus-Organism-Response (SOR) model with constructs derived from digital social influence. By validating the influence of SOR and OMGS on both EA and SN, this study expands the scope of SOR by demonstrating that digital environments, particularly in social media, function not only as stimuli but also as social ecosystems that shape individuals' internal (organismal) states through informational and normative pathways. Furthermore, the mediating role of SN between digital stimuli and EA introduces a new explanatory mechanism in the literature on PBOP,

offering a deeper understanding of how social validation and peer influence enhance environmental concern.

From a managerial perspective, the findings suggest that brands, policymakers, and sustainability advocates should strategically leverage social media platforms not only as channels for green communication but also as interactive environments that foster normative alignment and emotional support among users. Creating engaging, informative, and visually appealing sustainability-related content can directly influence consumer EA. Simultaneously, encouraging peer-to-peer interactions (such as reviews, recommendations, or community discussions) can reinforce consumers' perceptions that sustainable consumption enjoys social approval and emotional support. Furthermore, campaigns should aim to activate social media platforms by highlighting social consensus and featuring influential figures or micro-influencers who promote environmentally responsible behaviors. This multidimensional approach can enhance the persuasive power of sustainability initiatives significantly.

This study underscores the transformative role of social media in promoting sustainable lifestyles at the social level. The confirmation that digital content and peer support influence EA and SN highlights the potential of social media as a catalyst for collective behavioral change. When people perceive that their peers value and engage in sustainable practices, they are more likely to adopt these behaviors, thereby contributing to broader social change. Therefore, strengthening sustainability narratives in online communities can foster a culture of environmental responsibility, especially among younger generations, who are highly active in digital environments. These findings call for collaboration between digital platforms, educational institutions, and public policy actors to build online ecosystems that normalize and celebrate sustainable choices.

6.2. Limitations and Recommendations for Future Research

Despite the theoretical and empirical contributions of this study, it is important to acknowledge some limitations that could influence the interpretation and generalization of the results. First, the cross-sectional design prevented establishing definitive causal relationships between the variables, as the data were collected at a single point in time. Second, the measurement was based exclusively on self-report instruments, which may have been influenced by social desirability biases or subjective perceptions that are not necessarily consistent with actual behavior. Furthermore, the sample was concentrated in a specific geographic and cultural context, which limits the possibility of extrapolating the results to other social or economic environments with different levels of environmental awareness or digital habits. Finally, the proposed model focused on two dimensions of digital influence (informative content and group support); therefore, other potentially relevant factors in the digital environment, such as participation in virtual communities and the influence of opinion leaders, were not considered.

Based on the identified limitations, future research should adopt longitudinal designs that allow observation of the evolution of sustainable attitudes and behaviors over time, especially in response to continuous exposure to digital content. Likewise, it would be valuable to incorporate complementary methods, such as behavioral analysis of social media or in-depth interviews, which would allow for methodological triangulation and a richer understanding of the phenomenon. Expanding the research to multicultural contexts would also help validate the robustness of the proposed model and explore how local cultural or normative factors modulate digital influence. Finally, it is suggested that additional variables, such as ecological identity, environmental self-efficacy, or the role of algorithms in exposure to pro-environmental content, enrich the explanatory model of

sustainable behavior in digital environments and respond to the growing complexity of the online social influence ecosystem.

Author Contributions: Conceptualization: G.G.-R., N.C.-B., A.G.-U. and S.M.-M.; methodology: N.C.-B., I.V.G. and A.G.-U.; software: S.M.-M., O.O.-R. and A.G.-U.; validation: G.G.-R., N.C.-B., A.G.-U. and O.O.-R.; formal analysis: G.G.-R., N.C.-B., A.G.-U. and S.M.-M.; investigation: G.G.-R., N.C.-B. and I.L.-P.; resources: G.G.-R., N.C.-B., A.G.-U., O.O.-R., S.M.-M., R.M.-C., M.L.-B., I.L.-P. and I.V.G.; data curation: O.O.-R., M.L.-B., I.V.G. and R.M.-C.; writing—original draft preparation: M.L.-B. and R.M.-C.; writing—review and editing: S.M.-M., A.G.-U. and O.O.-R.; visualization: M.L.-B., R.M.-C., I.L.-P. and I.V.G.; supervision: G.G.-R., N.C.-B. and A.G.-U.; project administration: G.G.-R. and N.C.-B. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: This study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of Colegio de Economistas de Cajamarca for studies involving humans: Ethics committee I007/2025-P005/2025, 10 January 2025.

Informed Consent Statement: Informed consent was obtained from all the subjects involved in this study.

Data Availability Statement: The original data presented in this study are openly available at https://drive.google.com/drive/folders/1kgLZDYlw5_4bFY2TlcRO7BhTS4FTDeHl?usp=sharing, accessed on 24 June 2025.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Table A1. Questions applied in the study.

Variables	Questions	Author
SMC	SMC1: Normalmente leo información y artículos sobre temas sostenibles en las redes sociales.	Li et al. [16]
	SMC2: Normalmente veo imágenes y vídeos relacionados con la sostenibilidad en las redes sociales.	
	SMC3: Normalmente escucho programas en las redes sociales relacionados con temas de sostenibilidad	
	SMC4: Normalmente leo anuncios y folletos del gobierno sobre políticas y estrategias sustentable en las redes sociales.	
SN	SN1. Mi familia muestra una actitud positiva hacia un estilo de vida verde y sostenible en las redes sociales.	
	SN2. Mis amigos muestran una actitud positiva hacia un estilo de vida verde y sostenible en las redes sociales.	
	SN3. Las personas en las redes sociales que conozco tienen actitud positiva hacia un estilo de vida verde y sostenible.	
	SN4. Mi universidad difunde información sobre educación verde de manera efectiva para aumentar mis conocimientos.	
OMGS	OMGS1. En general, mis amigos en las redes sociales se preocupan por mí.	Saggaff et al. [80]
	OMGS2. Mis amigos en las redes sociales me cuentan sobre productos orgánicos que me gustaría conocer.	
	OMGS3. Cuando pedí consejos sobre productos orgánicos, mis amigos en las redes sociales me dieron consejos útiles.	
	OMGS4. Siempre recibo respuestas cuando publico sobre productos orgánicos que consumo.	
EA	EA1. La protección del medio ambiente es importante para mí al comprar productos.	Hoyos et al. [9]
	EA2. Creo que los productos orgánicos ayudan a reducir la contaminación (agua, aire, etc.).	
	EA3. Creo que los productos orgánicos ayudan a preservar la naturaleza y sus recursos.	
	EA4. Si pudiera elegir, preferiría un producto orgánicos a uno convencional.	
PBOP	PBOP1. He comprado productos orgánicos durante el último mes.	

References

1. Sun, Y.; Liu, N.; Zhao, M. Factors and mechanisms affecting green consumption in China: A multilevel analysis. *J. Clean. Prod.* **2019**, *209*, 481–493. [CrossRef]
2. Hou, C.; Sarigöllü, E. Is bigger better? How the scale effect influences green purchase intention: The case of washing machine. *J. Retail. Consum. Serv.* **2022**, *65*, 102894. [CrossRef]
3. Larranaga, A.; Valor, C. Consumers' categorization of eco-friendly consumer goods: An integrative review and research agenda. *Sustain. Prod. Consum.* **2022**, *34*, 518–527. [CrossRef]

4. Kumar, B.; Manrai, A.K.; Manrai, L.A. Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *J. Retail. Consum. Serv.* **2017**, *34*, 1–9. [CrossRef]
5. Yela Aránega, A.; Ferraris, A.; Baima, G.; Bresciani, S. Guest editorial: Sustainable growth and development in the food and beverage sector. *Br. Food J.* **2022**, *124*, 2429–2433. [CrossRef]
6. Kim, N.; Lee, K. Environmental Consciousness, Purchase Intention, and Actual Purchase Behavior of Eco-Friendly Products: The Moderating Impact of Situational Context. *Int. J. Environ. Res. Public Health* **2023**, *20*, 5312. [CrossRef]
7. Min, H.; Galle, W.P. Green purchasing strategies: Trends and implications. *Int. J. Purch. Mater. Manag.* **1997**, *33*, 10–17. [CrossRef]
8. Nguyen, H.; Le, H. The effect of agricultural product eco-labelling on green purchase intention. *Manag. Sci. Lett.* **2020**, *10*, 2813–2820. [CrossRef]
9. Hoyos-Vallejo, C.A.; Carrión-Bósquez, N.G.; Ortiz-Regalado, O. The influence of skepticism on the university Millennials' organic food product purchase intention. *Br. Food J.* **2023**, *125*, 3800–3816. [CrossRef]
10. Bryła, P.; Chatterjee, S.; Ciabiada-Bryła, B. The Impact of Social Media Marketing on Consumer Engagement in Sustainable Consumption: A Systematic Literature Review. *Int. J. Environ. Res. Public Health* **2022**, *19*, 16637. [CrossRef]
11. Toubes, D.R.; Araújo Vila, N.; Fraiz Brea, J.A. Changes in Consumption Patterns and Tourist Promotion after the COVID-19 Pandemic. *J. Theor. Appl. Electron. Commer. Res.* **2021**, *16*, 1332–1352. [CrossRef]
12. Hafyana, S.; Alzubi, A. Social Media's Influence on Eco-Friendly Choices in Fitness Services: A Mediation Moderation Approach. *Buildings* **2024**, *14*, 650. [CrossRef]
13. Samaniego-Arias, M.; Chávez-Rojas, E.; García-Umaña, A.; Carrión-Bósquez, N.; Ortiz-Regalado, O.; Llamo-Burga, M.; Ruiz-García, W.; Guerrero-Haro, S.; Cando-Aguinaga, W. The Impact of Social Media on the Purchase Intention of Organic Products. *Sustainability* **2025**, *17*, 2706. [CrossRef]
14. Kumar, A.; Sharma, N.K. Impact of social media on consumer purchase intention: A developing country perspective. In *Handbook of Research on the Role of Human Factors in IT Project Management*; IGI Global: Hershey, PA, USA, 2020; pp. 260–277.
15. Kane, K.; Chiru, C.; Ciuchete, S.G. Exploring the eco-attitudes and buying behaviour of Facebook users. *Amfiteatru Econ.* **2012**, *14*, 157–171.
16. Li, J.; Chiu, D.K.W.; Ho, K.K.W.; So, S. The Use of Social Media in Sustainable Green Lifestyle Adoption: Social Media Influencers and Value Co-Creation. *Sustainability* **2024**, *16*, 1133. [CrossRef]
17. Stephen, A.T. The role of digital and social media marketing in consumer behavior. *Curr. Opin. Psychol.* **2016**, *10*, 7–21. [CrossRef]
18. Informe General Global Digital 2022. Estadísticas de la Situación Digital de Ecuador. Available online: https://datareportal.com/reports/digital-2021-global-overview-report (accessed on 5 June 2025).
19. Mentino: Estado Digital Ecuador Octubre de 2024. Available online: https://www.mentinno.com/estado-digital-ecuador-octubre-2024-2/#descarga (accessed on 5 June 2025).
20. Armutcu, B.; Ramadani, V.; Zeqiri, J.; Dana, L.P. The role of social media in consumers' intentions to buy green food: Evidence from Türkiye. *Br. Food J.* **2024**, *126*, 1923–1940. [CrossRef]
21. Palomino Rivera, H.J.; Barcellos-Paula, L. Personal Variables in Attitude toward Green Purchase Intention of Organic Products. *Foods* **2024**, *13*, 213. [CrossRef]
22. Russell, J.A.; Mehrabian, A. Distinguishing anger and anxiety in terms of emotional response factors. *J. Consult. Clin. Psychol.* **1974**, *42*, 79–83. [CrossRef]
23. Chang, H.-J.; Eckman, M.; Yan, R.-N. Application of the Stimulus-Organism-Response model to the retail environment: The role of hedonic motivation in impulse buying behavior. *Int. Rev. Retail. Distrib. Consum. Res.* **2011**, *21*, 233–249. [CrossRef]
24. Choi, H.; Kandampully, J. The effect of atmosphere on customer engagement in upscale hotels: An application of S-O-R paradigm. *Int. J. Hosp. Manag.* **2019**, *77*, 40–50. [CrossRef]
25. Young, G. Stimulus–Organism–Response Model: SORing to New Heights. In *Unifying Causality and Psychology*; Springer: Berlin/Heidelberg, Germany, 2016; pp. 699–717. [CrossRef]
26. Chang, H.J.; Cho, H.J.; Turner, T.; Gupta, M.; Watchravesringkan, K. Effects of store attributes on retail patronage behaviors. *J. Fash. Mark. Manag. Int. J.* **2015**, *19*, 136–153. [CrossRef]
27. Amaya Rivas, A.; Liao, Y.-K.; Vu, M.-Q.; Hung, C.-S. Toward a Comprehensive Model of Green Marketing and Innovative Green Adoption: Application of a Stimulus-Organism-Response Model. *Sustainability* **2022**, *14*, 3288. [CrossRef]
28. Han, M.S.; Hampson, D.P.; Wang, Y.; Wang, H. Consumer confidence and green purchase intention: An application of the stimulus-organism-response model. *J. Retail. Consum. Serv.* **2022**, *68*, 103061. [CrossRef]
29. Jayadi, J.; Putra, E.; Murwani, I. The implementation of S-O-R Framework (stimulus, Organism, and Response) in User Behavior Analysis of Instagram Shop features on Purchase Intention. *Sch. J. Eng. Technol.* **2022**, *10*, 42–53. [CrossRef]
30. Duong, C.D. Cultural values and energy-saving attitude-intention-behavior linkages among urban residents: A serial multiple mediation analysis based on stimulus-organism-response model. *Manag. Environ. Qual.* **2022**, *34*, 647–669. [CrossRef]
31. Wunderlich, S.; Gatto, K.; Smoller, M. Consumer knowledge about food production systems and their purchasing behavior. *Environ. Dev. Sustain.* **2018**, *20*, 2871–2881. [CrossRef]

32. Lazaroiu, G.; Andronie, M.; Uţă, C.; Hurloiu, I. Trust management in organic agriculture: Sustainable consumption behavior, environmentally conscious purchase intention, and healthy food choices. *Front. Public Health* **2019**, *7*, 340. [CrossRef]
33. Aertsens, J.; Verbeke, W.; Mondelaers, K.; Van Huylenbroeck, G. Personal determinants of organic food consumption: A review. *Br. Food J.* **2009**, *111*, 1140–1167. [CrossRef]
34. Moser, A.K. Thinking green, buying green? Drivers of pro-environmental purchasing behavior. *J. Consum. Mark.* **2015**, *32*, 167–175. [CrossRef]
35. Gunawan, A.I.; Hurriyati, R.; Wibowo, L.A.; Monoarfa, H. Consumers in responsible consumption: What leads to sustainable behavior? *Urban. Sustain. Soc.* **2025**, *2*, 257–281. [CrossRef]
36. Glavič, P. Evolution and Current Challenges of Sustainable Consumption and Production. *Sustainability* **2021**, *13*, 9379. [CrossRef]
37. Carrión-Bósquez, N.; Veas-González, I.; Naranjo-Armijo, F.; Llamo-Burga, M.; Ortiz-Regalado, O.; Ruiz-García, W.; Guerra-Regalado, W.; Vidal-Silva, C. Advertising and Eco-Labels as Influencers of Eco-Consumer Attitudes and Awareness—Case Study of Ecuador. *Foods* **2024**, *13*, 228. [CrossRef] [PubMed]
38. Carrión-Bósquez, N.G.; Ortiz-Regalado, O.; Veas-González, I.; Naranjo-Armijo, F.G.; Guerra-Regalado, W.F. The mediating role of attitude and environmental awareness in the influence of green advertising and eco-labels on green purchasing behaviors. *Span. J. Mark-ESIC.* **2024**, *29*, 330–350. [CrossRef]
39. Hoyos-Vallejo, C.A.; Carrión-Bósquez, N.G.; Veas-González, I. Impact of consumption values on environmental attitudes and organic purchase intentions among Peruvian millennials. *Acad. Rev. Latinoam. Adm.* **2025**, 1–20. [CrossRef]
40. Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [CrossRef]
41. Barbu, A.; Catană, Ș.A.; Deselnicu, D.C.; Cioca, L.I.; Ioanid, A. Factors influencing consumer behavior toward green products: A systematic literature review. *Int. J. Environ. Res. Public Health* **2022**, *19*, 16568. [CrossRef]
42. Ogiemwonyi, O.; Alam, M.N.; Alshareef, R.; Alsolamy, M.; Azizan, N.A.; Mat, N. Environmental factors affecting green purchase behaviors of the consumers: Mediating role of environmental attitude. *Clean. Environ. Syst.* **2023**, *10*, 100130. [CrossRef]
43. Rusyani, E.; Lavuri, R.; Gunardi, A. Purchasing Eco-Sustainable Products: Interrelationship between Environmental Knowledge, Environmental Concern, Green Attitude, and Perceived Behavior. *Sustainability* **2021**, *13*, 4601. [CrossRef]
44. Nekmahmud, M.; Ramkissoon, H.; Fekete-Farkas, M. Green purchase and sustainable consumption: A comparative study between European and non-European tourists. *Tour. Manag. Perspect.* **2022**, *43*, 100980. [CrossRef]
45. Diagourtas, G.; Kounetas, K.E.; Simaki, V. Consumer attitudes and sociodemographic profiles in purchasing organic food products: Evidence from a Greek and Swedish survey. *Br. Food J.* **2023**, *125*, 2407–2423. [CrossRef]
46. Jahari, S.A.; Hass, A.; Idris, I.B.; Joseph, M. An integrated framework examining sustainable green behavior among young consumers. *J. Consum. Mark.* **2022**, *39*, 333–344. [CrossRef]
47. Kautish, P.; Sharma, R. Study on relationships among terminal and instrumental values, environmental consciousness and behavioral intentions for green products. *J. Ind. Bus. Res.* **2021**, *13*, 1–29. [CrossRef]
48. Sun, Y.; Li, T.; Wang, S. "I buy green products for my benefits or yours": Understanding consumers' intention to purchase green products. *Asia Pac. J. Mark. Logist.* **2022**, *34*, 1721–1739. [CrossRef]
49. Buil, T.; Mata, P. Intrinsic motivation and its influence in eco shopping basket. *J. Consum. Behav.* **2024**, *6*, 2812–2825. [CrossRef]
50. Taufique, K.M.R.; Vaithianathan, S. A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *J. Clean. Prod.* **2018**, *183*, 46–55. [CrossRef]
51. Carrión-Bósquez, N.; Ortiz-Regalado, O.; Naranjo Armijo, F.; Veas-González, I.; Llamo-Burga, M.; Guerra-Regalado, W.F. Influential factors in the consumption of organic products: The case of Ecuadorian and Peruvian millennials. *Multidiscip. Bus. Rev.* **2024**, *17*, 49–63. [CrossRef]
52. Chi, N. Ethical consumption behavior towards eco-friendly plastic products: Implication for cleaner production. *Clean. Responsible Consum.* **2022**, *5*, 100055. [CrossRef]
53. Rickinson, M. Learners and Learning in Environmental Education: A critical review of the evidence. *Environ. Educ. Res.* **2001**, *7*, 207–320. [CrossRef]
54. Gifford, R.; Nilsson, A. Personal and social factors that influence pro-environmental concern and behaviour: A review. *Int. J. Psychol.* **2014**, *49*, 141–157. [CrossRef]
55. Patiño-Toro, O.N.; Valencia-Arias, A.; Palacios-Moya, L.; Uribe-Bedoya, H.; Valencia, J.; Londoño, W.; Gallegos, A. Green purchase intention factors: A systematic review and research agenda. *Sustain. Environ.* **2024**, *10*, 2356392. [CrossRef]
56. Islam, Q.; Ali Khan, S.M.F. Assessing consumer behavior in sustainable product markets: A structural equation modeling approach with partial least squares analysis. *Sustainability* **2024**, *16*, 3400. [CrossRef]
57. Amalia, F.A.; Sosianika, A.; Suhartanto, D. Indonesian millennials' halal food purchasing: Merely a habit? *Br. Food J.* **2020**, *122*, 1185–1198. [CrossRef]
58. Pristl, A.; Kilian, S.; Mann, A. When does a social norm catch the worm? Disentangling social normative influences on sustainable consumption behaviour. *J. Consum. Behav.* **2021**, *20*, 635–654. [CrossRef]

59. Izquierdo-Yusta, A.; Martínez-Ruiz, M.P.; Pérez-Villarreal, H.H. Studying the impact of food values, subjective norm and brand love on behavioral loyalty. *J. Retail. Consum. Serv.* **2022**, *65*, 102885. [CrossRef]
60. Kumar, A.; Pandey, M. Social Media and Impact of Altruistic Motivation, Egoistic Motivation, Subjective Norms, and EWOM toward Green Consumption Behavior: An Empirical Investigation. *Sustainability* **2023**, *15*, 4222. [CrossRef]
61. Kim, Y.J.; Njite, D.; Hancer, M. Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior. *Int. J. Hosp. Manag.* **2013**, *34*, 255–262. [CrossRef]
62. Maduku, D.K. How environmental concerns influence consumers' anticipated emotions towards sustainable consumption: The moderating role of regulatory focus. *J. Retail. Consum. Serv.* **2024**, *76*, 103593. [CrossRef]
63. Nguyen, H.V.; Nguyen, N.; Nguyen, B.K.; Lobo, A.; Vu, P.A. Organic food purchases in an emerging market: The influence of consumers' personal factors and green marketing practices of food stores. *Int. J. Environ. Res. Public Health* **2019**, *16*, 1037. [CrossRef]
64. Al-Swidi, A.; Mohammed, S.; Haroon, M.; Noor, M. The role of subjective norms in theory of planned behavior in the context of organic food consumption. *Br. Food J.* **2014**, *116*, 1561–1580. [CrossRef]
65. Chang, M.K. Predicting unethical behavior: A comparison of the theory of reasoned action of the theory of planned behavior. *J. Bus. Ethics* **1998**, *17*, 1825–1833. [CrossRef]
66. Vallerand, R.J.; Deshaies, P.; Cuerrier, J.; Pelletier, L.; Mongeau, C. Ajzen and Fishbein's theory of reasoned action as applied to moral behavior: A confirmatory analysis. *J. Pers. Soc. Psychol.* **1992**, *62*, 98–109. [CrossRef]
67. Tarkiainen, A.; Sundqvist, S. Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *Br. Food J.* **2005**, *107*, 808–822. [CrossRef]
68. De Vries, L.; Gensler, S.; Leeflang, P. Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *J. Interact. Mark.* **2012**, *26*, 83–91. [CrossRef]
69. Pletikosa, I.; Michahelles, F. Online engagement factors on Facebook brand pages. *Soc. Netw. Anal. Min.* **2013**, *3*, 843–861. [CrossRef]
70. Duffett, R. Influence of social media marketing communications on young consumers' attitudes. *Young Consum.* **2017**, *18*, 19–39. [CrossRef]
71. Malthouse, E.; Haenlein, M.; Skiera, B.; Wege, E.; Zhang, M. Managing customer relationships in the social media era: Introducing the social CRM house. *J. Interact. Mark.* **2013**, *27*, 270–280. [CrossRef]
72. Malthouse, E.; Calder, B.; Kim, S.; Vandenbosch, M. Evidence that user generated content that produces engagement increases purchase behaviours. *J. Mark. Manag.* **2016**, *32*, 427–444. [CrossRef]
73. Dolan, R.; Conduit, J.; Frethey, C.; Fahy, J.; Goodman, S. Social media engagement behavior: A framework for engaging customers through social media content. *Eur. J. Mark.* **2019**, *53*, 2213–2243. [CrossRef]
74. Byrum, K. "Hey friend, buy green": Social media use to influence Eco-purchasing involvement. *Environ. Commun.* **2019**, *13*, 209–221. [CrossRef]
75. Li, Y.; Lee, Y.; Lien, N. Online social advertising via influential endorsers. *Int. J. Electron. Commer.* **2012**, *16*, 119–154. [CrossRef]
76. Khan, Z.; Khan, A.; Nabi, M.; Khanam, Z.; Arwab, M. The effect of ewom on consumer purchase intention and mediating role of brand equity: A study of apparel brands. *Res. J. Text. Appar.* **2023**, *28*, 1108–1125. [CrossRef]
77. Lee, Y.K. A comparative study of green purchase intention between Korean and Chinese consumers: The moderating role of collectivism. *Sustainability* **2017**, *9*, 1930. [CrossRef]
78. Bedard, S.A.N.; Tolmie, C.R. Millennials' green consumption behaviour: Exploring the role of social media. *Corp. Soc. Responsib. Environ. Manag.* **2018**, *25*, 1388–1396. [CrossRef]
79. Zhang, Y.; Hassan, N.M.; Sheikh, A. Unboxing the dilemma associated with online shopping and purchase behavior for remanufactured products: A smart strategy for waste management. *J. Environ. Manag.* **2024**, *351*, 119790. [CrossRef]
80. Shihab, M.S.; Ikhsan, R.B.; Fakhrorazi, A. The power of social media: Exploring online member groups and psychological factors to support responsible consumption. *Digit. Bus.* **2025**, *5*, 100101. [CrossRef]
81. Tafesse, W.; Wien, A. A framework for categorizing social media posts. *Cogent Bus. Manag.* **2017**, *4*, 1284390. [CrossRef]
82. Sreen, N.; Purbey, S.; Sadarangani, P. Impact of culture, behavior and gender on green purchase intention. *J. Retail. Consum. Serv.* **2018**, *41*, 177–189. [CrossRef]
83. Nick, E.; Cole, D.; Cho, S.; Smith, D.; Carter, T.; Zelkowitz, R. The Online Social Support Scale: Measure development and validation. *Psychol. Assess.* **2018**, *30*, 1127–1143. [CrossRef]
84. Zhao, L.; Lee, S.H.; Copeland, L.R. Social media and Chinese consumers' environmentally sustainable apparel purchase intentions. *Asia Pac. J. Mark. Logist.* **2019**, *31*, 855–874. [CrossRef]
85. Setiawan, B.; Afiff, A.Z.; Heruwasto, I. The role of norms in predicting waste sorting behavior. *J. Soc. Mark.* **2021**, *11*, 224–239. [CrossRef]

86. Ali, M.; Ullah, S.; Ahmad, M.S.; Cheok, M.Y.; Alenezi, H. Assessing the impact of green consumption behavior and green purchase intention among millennials toward sustainable environment. *Environ. Sci. Pollut. Res. Int.* **2023**, *30*, 23335–23347. [CrossRef] [PubMed]
87. Kim, J.J.; Hwang, J. Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter? *J. Hosp. Tour. Manag.* **2020**, *42*, 1–11. [CrossRef]
88. Salem, S.F.; Alanadoly, A.B. Personality traits and social media as drivers of word-of-mouth towards sustainable fashion. *J. Fash. Mark. Manag.* **2021**, *25*, 24–44. [CrossRef]
89. Ringle, C.M.; Wende, S.; Becker, J.M. *SmartPLS 4*; SmartPLS: Oststeinbek, Germany, 2022.
90. Wold, H.O. Soft Modeling: The Basic Design and Some Extensions. In *Systems Under Indirect Observations: Part II*; Joreskog, K.G., Wold, H.O.A., Eds.; Systems Under Indirect Observations: Amsterdam, The Netherlands, 1982; pp. 1–54. Available online: https://www.scirp.org/reference/ReferencesPapers?ReferenceID=2333614 (accessed on 11 May 2025).
91. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *31*, 2–24. [CrossRef]
92. Leguina, A. A primer on partial least squares structural equation modeling (PLS-SEM). *Int. J. Res. Method Educ.* **2015**, *38*, 220–221. [CrossRef]
93. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [CrossRef]
94. Chin, W.W. Commentary: Issues and opinion on structural equation modeling. *MIS Q.* **1998**, *22*, vii–xvi.
95. Falk, R.F.; Miller, N.B. *A Primer for Soft Modeling*; University of Akron Press: Akron, OH, USA, 1992.
96. Henseler, J.; Hubona, G.; Ray, P.A. Using PLS path modeling in new technology research: Updated guidelines. *Ind. Manag. Data Syst.* **2016**, *116*, 2–20. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.