



## Mediating role of electronic word of mouth affecting green consumer behavior

 Nguyen Thi Ngoc  
Nga<sup>1</sup>

 Bui Huy Khoi<sup>2+</sup>

<sup>1</sup>Banking University of Ho Chi Minh City, Ho Chi Minh City, Vietnam.

Email: [ngantn@hub.edu.vn](mailto:ngantn@hub.edu.vn)

<sup>2</sup>Industrial University of Ho Chi Minh City, Ho Chi Minh City, Vietnam.

Email: [buihuykhoi@iuh.edu.vn](mailto:buihuykhoi@iuh.edu.vn)



(+ Corresponding author)

### ABSTRACT

#### Article History

Received: 12 June 2024

Revised: 16 September 2024

Accepted: 4 October 2024

Published: 22 October 2024

#### Keywords

Argument quality  
Electronic word of mouth  
E-WOM  
Green consumer behavior  
IAM  
Reliable source  
Satisfaction  
Smart-PLS  
TPB.

The research was conducted to measure the relationship between factors affecting green consumer behavior, examining the mediating role of E-WOM. To achieve the proposed research goals, the authors chose the Covariance-Based Structural Equation Modeling (CB-SEM) to analyze data when surveying 294 consumers living in Ho Chi Minh City with an interest in and understanding consumer products. Electronic word-of-mouth activities and green consumer behavior rely on a non-probability sampling method through structured interview questionnaires. The study employs the dual theory, which combines the information acceptance model (IAM) and the planned behavior model (TPB), as its background theory. Using Smart-PLS 4.0 statistical software to analyze data, statistical results have shown that the factors of Argument Quality (0.470), Reliable Source (0.175), and Satisfaction (0.388) have a positive impact on E-WOM (0.388). E-WOM has a positive and direct influence on green consumer behavior. The authors anticipate that their management implications will serve as a valuable solution for businesses embracing sustainable trends in the future.

**Contribution/Originality:** The paper explores the mediating role of electronic word-of-mouth. E-WOM has scientific and practical significance. E-WOM has a positive and direct influence on green consumer behavior. The scientific research topic helps identify, synthesize, and measure factors that have had a powerful impact on green consumption behavior among individual users in Ho Chi Minh City, Vietnam.

## 1. INTRODUCTION

Consumers are updating their demands more swiftly, modernly, and more conveniently in today's world. Consumer behavior is the measure, driving force, and boost of profits and revenue for businesses, the fast growth of a retailer. To quickly grasp consumer trends, companies must always be in the process of researching and offering products that meet consumers' needs and satisfy their desires. Green consumer behavior is a trend that is unavoidable due to people's growing awareness of dangers in today's living environment, the need for environmental protection activities, and the need for changes in behaviour and consumption habits to positively impact the environment.

The astonishing numbers describing the current state of waste in the environment were reported by the electronic magazine by Vietnam National Assembly in 2023 when the two largest cities in the country, Hanoi, generate about 7,000 tons/day. Including household waste from households, Ho Chi Minh City generates about 10,000 tons of trash every day. In other cities such as Can Tho, Da Nang City faces tons of garbage per day, facing many waste management and treatment problems, equivalent to over 500,000 tons/year according to forecasts. By the year 2025, waste generation rate will increase from 10 to 15%, of which about 36,000 tons/day from urban

domestic solid waste, 28,500 tons/day from rural household waste, 6,500 tons/day from industrial solid waste, and 3,000 tons/day from days for hazardous waste according to Ministry of Natural Resources and Environment in 2023. The exorbitant amount of waste is a burden on the environment, so proper waste treatment options are a top priority. People are also learning about alternative products with recycling and reuse properties, evanescing their daily consumption behavior.

Realizing that companies today have media advertising plans for their products through many methods to recognize the product brand, and forming green consumption intentions and behavior. To meet the set goals, finding and devising appropriate communication strategies is a top priority for businesses. With the advancement of Internet technology, Vietnam has emerged as a country with the 12th highest Internet usage in the world, ranking 8th among Asian countries with over 73 million users, which equates to more than 73.5 million users. According to the World Internet Stats in 2023, about 76.95 million people, or 78.2% of the country's total population, use social networks. Recorded for Communist Magazine in 2023, the most used social media include: Facebook, Zalo, Messenger, TikTok, and YouTube. Numerous needs arise, including communication, information search, online shopping, and keeping up with the latest trends. Therefore, media marketing activities have gradually been replaced by online marketing activities, in which there is an electronic word of mouth (E-WOM) activity when more than 90% of users search for product information online in advance, compare, and make choices. This has proven that electronic word-of-mouth (E-WOM) activities have an outstanding influence on consumers and businesses.

Typically, when studying [Bueno and Gallego \(2021\)](#); [Chen \(2023\)](#) and [Balamoorthy and Chandra \(2023\)](#) the main effects on transmission activities of the mouth include: (1) quality of argument (2) reliable sources (3) Satisfaction. In addition, [Simanjuntak et al. \(2023\)](#); [Román-Augusto, Garrido-Lecca-Vera, Lodeiros-Zubiria, and Mauricio-Andia \(2023\)](#) and [Bueno and Gallego \(2021\)](#) have identified electronic word-of-mouth activities as having positive effects. User's green consumption behaviour is positively impacted.

The research was conducted to determine and measure the relationship between the factors Information Quality and Source Reliability. Satisfaction affects Electronic Word of Mouth and Green Consumer Behavior for consumers in Ho Chi Minh City. Based on analysis results from SmartPLS 4.0 software, the authors have proposed appropriate management implications to help green consumer brands implement communication strategies and increase brand awareness, forming green consumption behavior in people.

This paper presents the application of the CB-SEM model for green consumption behavior: Section 1 presents an overview of this research, Section 2 reviews the theoretical basis and research hypothesis on the variable used, and Section 3 presents the research methods. Research results and discussion with some discussion and implications are presented in Section 4. Lastly, Section 5 includes the conclusion and management implications of this paper.

## 2. THEORETICAL BASIS AND RESEARCH HYPOTHESIS

### 2.1. Theoretical Basis

#### 2.1.1. Information Acceptance Model (IAM)

Electronic word of mouth refers to information transmitted between sender and receiver through technology ([Bansal & Voyer, 2000](#)). However, the level of influence from transmitted information can change during the word-of-mouth process from one person to another. Different approaches to the same information content lead differences in concepts and meanings among information recipients ([Huvila, Ahmad, Widén, & Teixeira, 2023](#)). Many researchers have chosen the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) to explain the process by which a person directly influences their intentions and behavior during adoption. People receive and apply ideas or information from various sources ([Ajzen, 1991](#); [Davis, 1989](#)). Based on previously tested hypotheses, [Arumugam and Omar \(2016\)](#) studied electronic word of mouth (E-WOM) in a dual theoretical model named the Information Acceptance Model (IAM) when explaining the process by which users acknowledge information to change consumer intentions and behavior.

### 2.1.2. Theory of Planned Behavior

Ajzen (1985) found many limitations in the Theory of Reasoned Action model (Ajzen & Fishbein, 1975) and proposed the Theory of Planned Behavior (Theory of Planned Behavior) to add the element of perceived behavioral control (Perceived Behavioral Control – PBC).

According to the TPB model (Ajzen, 1985) one of the fundamental elements influencing customers' real behavior is their behavioral tendencies. Three distinct factors—attitude, subjective standards, and perceived behavioral control—will determine behavioral tendencies. First, attitude is defined as the customer's assessment, whether favorable or unfavorable, of the behavior displayed. The second factor is social influence, which refers to the perceived social pressure to engage in the desired activity or not. The perceived ease or difficulty of carrying out the conduct, which is dependent on the opportunities and resources available to carry out the behavior, is the third component of perceived behavioral control.

### 2.1.3. Electronic Word of Mouth (E-WOM)

Electronic word of mouth (E-WOM) has been considered by many experts to be an extremely influential marketing tool (Bickart & Schindler, 2001; Kumar & Benbasat, 2006; Zhang, Craciun, & Shin, 2010). According to Hennig-Thurau, Gwinner, Walsh, and Gremler (2004) E-WOM is any positive or negative statement made by potential, actual, or previous customers about a product or company offered or provided to consumers via the Internet.” At the same time, Bueno and Gallego (2021) electronic word of mouth describes the process by which an individual consumer leaves information about a product or service to a large number of later customers through a public platform. turmeric. Especially when today's technology sites allow users to express interactions freely, and comment and store information, images, and videos that they think are useful and impactful. In short, E-WOM is the activity of transmitting information about products between users via online electronic platforms.

### 2.1.4. Green Consumer Behavior (GCB)

Many individuals and organizations have proposed different understandings and concepts of green consumption behavior (Yang, Chen, Long, & Yang, 2022) and there is no unified and clear definition of the term that interests many people today. The author defines green consumption behaviour as a process that involves social behaviors such as purchasing biological food, recycling, and consumer reuse. In addition, according to previous research (Mostafa, 2007) green consumption behavior is understood more broadly as the consumption and use of products that bring positive benefits to the environment and human health, which is an activity of an individual or organization in using natural resources (Sabharwal & Narula, 2024). Green consumer behavior refers to buying and using products that are friendly to the surrounding environment (Barbu, Catană, Deselnicu, Cioca, & Ioanid, 2022). In short, green consumer behavior is the choice to consume and prioritize products with environmentally friendly characteristics; customers will pay higher costs than traditional consumer products with a desire to create many positive effects on human health and the surrounding living environment.

## 2.2. Research Hypothesis

Based on references and the theory of planned behavior TPB- (Ajzen, 1985) and the IAM information acceptance model - (Koufaris, 2002). Inheriting and referencing previous research works, the author has synthesized and proposed research hypotheses appropriate to the actual situation. The proposed hypotheses are:

### 2.2.1. Argument Quality (AQ) and Electronic Word of Mouth (E – WOM)

Information's degree of influence is determined by the strength of its arguments, according to IAM principles (Koufaris, 2002). The collection of recommendations from other customers for stores, believed to influence consumer behaviour and serve as a means of accepting information, constitutes argument quality. This leads to the identification

of two dimensions: (1) informativeness, encompassing elements like timeliness, comprehensiveness, and relevance of the information obtained; and (2) persuasiveness. Arguments do, in fact, have a bigger effect on changing attitudes (Bueno & Gallego, 2021).

Results from the research work of Bueno and Gallego (2021) and Chen (2023) showed that the factor "quality of argument" has a positive influence on electronic word-of-mouth activities. Therefore, the quality of arguments is determined to play a role in improving the effectiveness of online information that users receive through current electronic word-of-mouth activities and in determining the success of a word-of-mouth process. From there, prove the following hypothesis:

*H<sub>1</sub>: Argument quality has a positive impact on electronic word-of-mouth.*

### 2.2.2. Reliable Sources (RS) and Electronic Word of Mouth (EW)

Along with reliable sources, it is a qualifying aspect for understanding information adoption. Therefore, reliable sources are related to the recipient's trust in the information source (Rickard & Yang, 2023). According to Shivaprasad and Rani (2020) study, source credibility is the recipients evaluation of the information reliability of electronic word-of-mouth activities. Added by Moran and Muzellec (2017) reliable sources are also demonstrated through the content of the argument conveyed and consumed interaction.

In this research, trustworthy sources play an important role in the EW context because the higher the consumer's evaluation of the information source, the more impact it will have on word-of-mouth activities and consumer psychology. Trustworthy sources plays a crucial role in shaping desired consumer behavior. Previous literature, including Balamoorthy and Chandra (2023); Bueno and Gallego (2021) and Chen (2023) showed the impact of reliability on consumers' purchasing intentions. Therefore, the Source Credibility of the message affects electronic word-of-mouth activity, and the following hypothesis is proposed.

*H<sub>2</sub>: Reliable sources have a positive impact on electronic word-of-mouth.*

### 2.2.3. Satisfaction (SAT) and Electronic Word of Mouth (EW)

Academic research limited the early lessons on satisfaction in the marketing context by focusing on consumption-modulating variables, like perceived value, while ignoring other relevant variables like satisfaction with word-of-mouth activities. Presently, satisfaction is defined as a consumer's perception of information about a product/service received through electronic word of mouth (Chen, 2023; Gelderman, Schijns, Lambrechts, & Vijgen, 2021; Zouari & Abdelhedi, 2021).

Recent studies Bueno and Gallego (2021); Chen (2023) and Román-Augusto et al. (2023) pointed out the need to investigate the relationship between satisfaction and electronic word-of-mouth activity E – WOM. An individual's satisfaction is influenced by several aspects related to the quality of the advertised product, responsiveness, reliability, and assurance from the information received (Bueno & Gallego, 2021). Therefore, message satisfaction affects electronic word-of-mouth activity and the following hypothesis is proposed.

*H<sub>3</sub>: Satisfaction has a positive impact on electronic word-of-mouth.*

### 2.2.4. Electronic Word-of-Mouth and Green Consumer Behavior (GCB)

Finally, many researchers have concluded that EW can bring significant benefits to products/services in the market by reducing marketing costs and expanding many customers (Rodrigo, 2024) because consumers can share information about green consumption behavior and influence other consumers to perform other consumption behaviors (Mehmood, Kautish, Mangla, Ali, & Kazancoglu, 2024).

In this sense, Bueno and Gallego (2021); Simanjuntak et al. (2023); Romadhany and Hakim (2024) and Román-Augusto et al. (2023) contend that EW has a direct impact on green consumer behavior because, when consumers look for trustworthy online information about green products to reduce perceived risks, the information they learn

from other consumers online is crucial in helping them make informed purchasing decisions (Elsaeed, Elsamadicy, Negm, & Rasheed, 2024). Based on the above, the following hypothesis is proposed.

*H<sub>1</sub>: Electronic word-of-mouth has a positive impact on green consumer behavior.*

### 3. RESEARCH METHODS

#### 3.1. Research Process

The study employs two primary research methods: qualitative research and quantitative research.

**Qualitative research:** The author searched and synthesized relevant documents published in reputable electronic journals to build a research model and expected measurement scale. The next stage is a direct interview with an expert guide who is knowledgeable about the topic to provide comments and adjust the content to suit the current research context.

**Quantitative research:** Based on the built hypothesis model developed and scale, the authors conducted an online survey via the Google Form application with a sample size of 300. The authors will code and incorporate the collected data into the SmartPLS software for measurement evaluation and structural modelling.

#### 3.2. Measurement Scale

Based on previously compiled research works, the author inherits research scales from reputable articles to produce scales including 24 observed variables. A 5-point Likert scale, ranging from completely disagree (1) to completely agree (5), measures the indicators in the scale.

#### 3.3. Collect Research Data

The author chose a convenient non-probability sampling method to collect research data. The method's most notable advantage is its ease of access to research subjects, which saves a lot of research costs and time. However, the disadvantage of the method is that it cannot identify the subjects taking part in the research survey, which leads to the accuracy and reliability of the measurement scales not being high. To overcome the above-mentioned shortcomings, the authors have built a set of questions to filter subjects and continuously monitor survey results to capture and promptly eliminate poor-quality answers. To ensure the conditions for using the CB-SEM model are met, according to Hair Jr, Matthews, Matthews, and Sarstedt (2017) the minimum sample size used for research is 10 times the size of the observed variable. As a result, the minimum sample size required is 240.

### 4. RESEARCH RESULTS AND DISCUSSION

#### 4.1. Sample Size Statistics

The research was conducted through the results of interviews with people living and working in Ho Chi Minh City with an interest, and understanding of electronic word-of-mouth activities and green consumer behavior, with a selected sample size of 294 in Table 1. The survey is for learning and research, not commercial purposes. Confidentiality is guaranteed, the questionnaire is anonymous, so information related to the respondents will not be disclosed. Survey subjects are classified based on demographic characteristics such as gender, age, income, and occupation. The study area is densely populated, so there is no imbalance between subjects, ensuring the current consumption trends of the people.

Descriptive statistics results show that for the female gender, 171 respondents accounted for 58.2%, accounting for over 123 male respondents accounted for the remaining 41.8%. Regarding the common age characteristics of the survey subjects, 61.9%, equivalent to 182 people, of the total survey subjects were between the ages of 18 and 25 years old. Followed by ages 26-40 years old, accounting for 23.5%, equivalent to 69 people surveyed.

Table 1. Sample size statistics.

Characteristics	Amount	Percent (%)	
Sex	Male	123	41.8
	Female	171	58.2
Age	Under 18	11	3.7
	From 18 - 25 years old	182	61.9
	From 26 - 40 years old	69	23.5
	Over 40 years old	32	10.9
Income/Month	Under 127.28 USD	53	18.0
	From 127.28 - 339.41 USD	90	30.6
	From 339.41 - 509.12 USD	74	25.2
	Over 509.12 USD	77	26.2
Job	Business owners	42	14.3
	Office staff	96	32.7
	Student/New graduates	134	45.6
	Other	22	7.5

Survey characteristics from subjects over 40 years old accounted for the third rate of 10.9%, equivalent to 32 people out of 294 participants. The remaining percentage is under 18 years old, with 3.7% corresponding to 11 users. Regarding the monthly income of respondents, 30.6% have an income of 127.28-339.41 USD (90 respondents), ranked second with an income of over 509.12 USD accounting for 25.2% (77 respondents), followed by the income level of 339.41-509.12 USD with 25.2% (74 respondents), and the remaining is the low-income level under 127.28 USD accounting for 18% (53 respondents). Regarding occupation, the survey subjects were mainly students/recent graduates, accounting for 45.6% (134 responses), office staff, accounting for 32.7% (96 responses), and business owners, accounting for 14.3% (42 responses). In Table 1, other occupation accounted for 7.5% (22 responses).

#### 4.2. Evaluate the Measurement Model

From the results of testing the scale reliability, Cronbach's Alpha coefficient and composite reliability (CR) show that the scale has good reliability when the Cronbach's Alpha coefficients and composite reliability are both large. According to Hair, Risher, Sarstedt, and Ringle (2019) the scale achieves a good reliability value when the Cronbach's Alpha coefficient and composite reliability are both more than 0.7. According to Hair et al. (2019) the average variance extracted value AVE is greater than 0.5, and the external factor loading coefficients of the indicators all ensure the condition is greater than 0.7, showing that we have enough Scientific evidence shows that the observed variables in the research model all have convergent validity in Table 2.

Table 2. Reliability and validity.

Variable	Coded	Load factor	Cronbach's alpha reliability coefficient	Composite reliability (CR)	Average variance extracted (AVE)
Argument quality (AQ)	AQ1	0.693	0.877	0.912	0.674
	AQ2	0.765			
	AQ3	0.811			
	AQ4	0.776			
	AQ5	0.798			
Reliable sources (RS)	RS1	0.810	0.889	0.919	0.693
	RS2	0.807			
	RS3	0.723			
	RS4	0.808			
	RS5	0.775			
Satisfaction (SAT)	SAT 1	0.740	0.881	0.918	0.736
	SAT 2	0.863			
	SAT 3	0.791			
	SAT 4	0.822			

Variable	Coded	Load factor	Cronbach's alpha reliability coefficient	Composite reliability (CR)	Average variance extracted (AVE)
Electronic word-of-mouth (EW)	EW1	0.714	0.873	0.908	0.667
	EW2	0.781			
	EW3	0.768			
	EW4	0.735			
	EW5	0.767			
Green consumer behavior (GCB)	GCS1	0.749	0.848	0.896	0.632
	GCS2	0.717			
	GCS3	0.718			
	GCS4	0.754			
	GCS5	0.696			

The results of testing the discriminant value of the latent variables in the research model show that the Fornell-Larcker index of the variables all has a square root value of AVE greater than the correlation coefficient compared to the remaining variables in the model and less than 1 (Fornell & Larcker, 1981). The HTMT values of the measured variables are all less than 0.85. Therefore, it can be concluded that the latent variables in the model all achieve discriminant value, without mixing between variables (Henseler, Ringle, & Sarstedt, 2015) Table 3.

Table 3. Discriminant value.

Variable	Fornell-Larcker					HTMT			
	AQ	EW	GCS	RS	SAT	AQ	EW	GCS	RS
AQ	0.770								
EW	0.708	0.753				0.671			
GCB	0.527	0.744	0.727			0.733	0.684		
RS	0.517	0.601	0.447	0.785		0.517	0.573	0.580	
SAT	0.603	0.726	0.540	0.527	0.805	0.605	0.690	0.655	0.530

Table 4. Model fit criteria.

Criteria	Value	Acceptable fit
Chi-square (P-value)	380.963 (0.000)	$\leq 0.05$
Root mean square error of approximation (RMSEA)	0.043	$\leq 0.08$
Goodness of fit index (GFI)	0.905	$\geq 0.90$
Parsimonious goodness of fit index (PGFI)	0.739	$\leq 1.00$
Standardized root mean square residual (SRMR)	0.056	$\leq 0.08$
Normed fit index (NFI)	0.910	$\geq 0.90$
Tucker-lewis index (TLI)	0.961	$\geq 0.90$
Comparative fit index (CFI)	0.966	$\geq 0.90$

#### 4.3. Model Fit Criteria

The results in Table 4 show that the P values of all observed variables are 0.000, less than 0.05, which is meaningful. Numerous criteria evaluate the model's suitability. According to Kamaruddin et al. (2024) Chi-square = 380.963 < 0.05, GFI, NFI, TLI, CFI > 0.9, PGFI < 1, RMSEA = 0.035, and SRMR = 0.052 < 0.08, the model meets the acceptance threshold and has a reasonable level with high relevance in analysis.

#### 4.4. Evaluate the Structural Model

Table 5 evaluates the CB-SEM structural model. The author uses Smart PLS 4.0 software to implement the CB-SEM algorithm and Bootstrap analysis technique to select a sample size of 5.000 to test the research hypotheses and the relationship to export in the model. Based on the results of the PLS-SEM structural model analysis, the P-value values of the relationships according to hypotheses H1, H2, H3, and H4 all have values less than 0.05, the system A

VIF number  $< 5$  shows that there is no multicollinearity phenomenon. From there, we have enough scientific evidence to accept the relationships of the above hypotheses. Direct influences include Argument quality (AQ), Reliable Sources (RS), and Satisfaction (SAT) which have a direct impact on E-WOM (EW) and electronic word-of-mouth (EW) activities. Table 5. shows that electronic word-of-mouth E-WOM (EW) has a direct impact on green consumer behavior (GCS).

Table 5. Path.

Hypothesis	Relationship	Coefficient	Bootstrapping confidence interval	t value	P – value	Decision
H1	AQ -> EW	0.470	[0.235-0.712]	3.859	0.000	Accept
H2	RS -> EW	0.175	[0.075-0.281]	3.429	0.001	Accept
H3	SAT -> EW	0.388	[0.252-0.539]	5.402	0.000	Accept
H4	EW -> GCS	0.644	[0.510-0.802]	8.362	0.000	Accept
$R^2$						
$R^2_{EW} = 0.669$						
$R^2_{GCS} = 0.554$						

$R^2 = 0.669$  shows that Argument Quality (AQ), Reliable Sources (RS), and Satisfaction (SAT) explain 66.9% of the variation in the variable electronic word-of-mouth activity E -WOM (EW).  $GCS R^2 = 0.554$  shows that E-WOM (EW) electronic word-of-mouth explains 55.4% of the variation in the green consumer behavior (GCS) variable.

Using the Bootstrapping analysis technique shows that the Bootstrapping results with a sample size of 5,000. The Bootstrapping confidence interval meets the reliability condition and does not contain 0 values. The P-value values are all less than 0.05. From there, we have enough scientific evidence to prove that hypotheses H1, H2, H3, and H4 are accepted: Argument quality (AQ) has an indirect impact on Green consumer behavior (GCS) through the mediating role of E-WOM (EW) electronic word-of-mouth activities. Trusted Source (TC) indirectly influences Green consumer behavior (HV) through the intermediary role of E-WOM electronic word-of-mouth activities (EW), Satisfaction (HL) indirectly influences Green consumer behavior (GCS) through the mediating role of E-WOM (EW), and this effect is statistically significant as shown in Table 5.

#### 4.5. Discuss Research Results

The results of CB-SEM structural model analysis show that the author's research findings have many similarities to previous domestic and foreign studies.

Hypotheses H1, H2, and H3 are proposed, including Argument Quality (AQ), Reliable Sources (RS), and Satisfaction (SAT), which have a direct impact on E-WOM electronic word-of-mouth activities with the coefficients standardized effects 0.470, 0.644, and 0.175. This research result is like the studies of Bueno and Gallego (2021); Chen (2023); Balamoorthy and Chandra (2023) and Román-Augusto et al. (2023) hypothesis H4 that E-WOM (EW) electronic word-of-mouth activities directly and positively affect green consumer behavior (GCS) reaches an impact coefficient of 0.600, completely similar to Bueno and Gallego (2021); Simanjuntak et al. (2023); Romadhany and Hakim (2024) and Román-Augusto et al. (2023). Additionally, the analysis tests are Argument Quality (AQ) factor on green consumer behavior (GCS) as a mediating effect of E-WOM (EW) word-of-mouth activity.

## 5. CONCLUSION AND MANAGEMENT IMPLICATIONS

### 5.1. Conclusion

Based on the research implementation process, the research results have achieved the initially set goals. The paper explores the mediating role of electronic word-of-mouth. E-WOM has scientific and practical significance. The scientific research topic helps identify, synthesize, and measure factors that have had a powerful impact on green consumption behavior among individual users in Ho Chi Minh City. In addition, the research results also contribute



to the system of scientific research documents, with topics related to green consumer behavior being used as a reference topic and a basis for future research. The research topic for practice, through the identified factors and management implications proposed in the research article, will contribute to easily identifying the key factors that influence and measure the impact between intermediate factors affecting the green consumption behavior of people in Ho Chi Minh City. From this, domestic manufacturers and businesses can gain a deeper understanding of their consumers' behaviour and devise suitable production and trade solutions, as well as development plans, to expand their business and sports markets. Demonstrate the company's social responsibility towards the environment and customers' health.

### 5.2. Management Implications

Based on the above research results, the authors have proposed management implications to help businesses improve the effectiveness of E-WOM on green consumer behavior by improving the quality of arguments and resources. trust and customer satisfaction.

First, businesses must strengthen departments to promptly monitor and evaluate the effectiveness and quality of brand information on online websites, thereby building a business image compatible with the brand. Sustainable brand vision, clear and widely promoted product characteristics that are green, clean, and friendly to the environment and consumers' health.

Second, businesses cross-check information and reference multiple sources to ensure that the information is based solidly. Provide training for employees on how to identify and evaluate reliable sources. Create and apply internal policies to define source selection criteria and processes.

Finally, the business itself needs to take customer satisfaction as the focus to build and develop its brand. Some factors that help increase consumer satisfaction are product quality matching advertising, quick consulting support, and warranty policy. Reasonable product prices, customer loyalty programs, etc.

### 5.3. Limitations of the Topic Suggest Future Research Directions

Compared with the specific research objectives mentioned, the study has evaluated the relationship of factors affecting green consumer behavior when the role of intermediary appears. However, the author must acknowledge and overcome certain limitations in the research.

The first limitation is that the scope of the research is still limited. Although choosing Ho Chi Minh City, one of the largest cities in the country, a key economic region, and a concentrated area where the population lives and works, it still cannot reflect fully and accurately. The characteristics and impact levels of factors influencing green consumer behavior in Ho Chi Minh City were compared to those in other research areas.

The second limitation is that the adjusted R-squared indices  $R^{2EW} = 0.669$  and  $R - squared = 0.554$  demonstrate that the independent variables only explain 66.9% of the influence on Electronic Word of Mouth (EW) activities and 55.4% of the influence. affects green consumer behavior (HV). Therefore, the research has not addressed other external factors that impact E-WOM (EW) and green consumer behavior (HV). Therefore, external influencing factors will be the goals and directions of future research on related topics.

**Funding:** This study received no specific financial support.

**Institutional Review Board Statement:** The Ethical Committee of the Faculty of Business Administration/Industrial University of Ho Chi Minh City, Ho Chi Minh City, Vietnam has granted approval for this study (Ref. No. 07082024).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** Performed the conception and design and edited the drafting of the paper, N.T.N.N.; described the analysis and interpretation of the data, B.H.K. All authors have read and agreed to the published version of the manuscript.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior Action control: From cognition to behavior. In (pp. 11-39). Berlin, Heidelberg: Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, 82(2), 261-277. <https://doi.org/10.1037/h0076477>
- Arumugam, V., & Omar, A. (2016). Electronic word-of-mouth information adoption by online consumers. *International Journal of Science and Research*, 5(12), 1864-1869.
- Balamoorthy, S., & Chandra, B. (2023). The influence of intrinsic and extrinsic motivational factors on e-WOM behaviour: The role of psychological impact during the time of COVID-19 crisis. *Heliyon*, 9(2), e13270. <https://doi.org/10.1016/j.heliyon.2023.e13270>
- Bansal, H. S., & Voyer, P. A. (2000). Word-of-mouth processes within a services purchase decision context. *Journal of Service Research*, 3(2), 166-177. <https://doi.org/10.1177/109467050032005>
- Barbu, A., Catană, Ș.-A., Deselnicu, D. C., Cioca, L.-I., & Ioanid, A. (2022). Factors influencing consumer behavior toward green products: A systematic literature review. *International Journal of Environmental Research and Public Health*, 19(24), 16568. <https://doi.org/10.3390/ijerph192416568>
- Bickart, B., & Schindler, R. M. (2001). Internet forums as influential sources of consumer information. *Journal of Interactive Marketing*, 15(3), 31-40. <https://doi.org/10.1002/dir.1014.abs>
- Bueno, S., & Gallego, M. D. (2021). eWOM in C2C platforms: Combining IAM and customer satisfaction to examine the impact on purchase intention. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1612-1630. <https://doi.org/10.3390/jtaer16050091>
- Chen, J.-L. (2023). Effect of perceived quality of green brands on road race participants' green word of mouth and mediating roles of satisfaction with and trust in green brands. *Sustainability*, 15(17), 13121. <https://doi.org/10.3390/su151713121>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Elsaeed, M., Elsamadicy, A., Negm, E., & Rasheed, H. (2024). Analyzing the factors affecting online trust in b2c e-commerce and its impact on purchase intention in Egypt. *The Academic Journal of Contemporary Commercial Research*, 4(1), 45-63. <https://doi.org/10.21608/ajccr.2024.220959.1072>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Gelderman, C. J., Schijns, J., Lambrechts, W., & Vijgen, S. (2021). Green marketing as an environmental practice: The impact on green satisfaction and green loyalty in a business-to-business context. *Business Strategy and the Environment*, 30(4), 2061-2076. <https://doi.org/10.1002/bse.2732>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/eb-11-2018-0203>
- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123. <https://doi.org/10.1504/ijmda.2017.10008574>
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the internet? *Journal of Interactive Marketing*, 18(1), 38-52. <https://doi.org/10.1002/dir.10073>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135.
- Huvila, I., Ahmad, F., Widén, G., & Teixeira, J. (2023). *Conclusion: Workplace information literacy as the literacy of the digital workplace*. London: Facet Publishing.

- Kamaruddin, E., Salman, I., Annahid, N., Munawiroh, M., Siswanto, H., Siregar, I., . . . Haudid, H. (2024). Investigating the role of digital transformation and digital innovation on school performance. *International Journal of Data and Network Science*, 8(3), 1557-1566. <https://doi.org/10.5267/ijjdns.2024.3.011>
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, 13(2), 205-223. <https://doi.org/10.1287/isre.13.2.205.83>
- Kumar, N., & Benbasat, I. (2006). Research note: The influence of recommendations and consumer reviews on evaluations of websites. *Information Systems Research*, 17(4), 425-439. <https://doi.org/10.1287/isre.1060.0107>
- Mehmood, K., Kautish, P., Mangla, S. K., Ali, A., & Kazancoglu, Y. (2024). Navigating a net-zero economy future: Antecedents and consequences of net-zero economy-based green innovation. *Business Strategy and the Environment*, 33, 4175-4197. <https://doi.org/10.1002/bse.3685>
- Moran, G., & Muzellec, L. (2017). eWOM credibility on social networking sites: A framework. *Journal of Marketing Communications*, 23(2), 149-161. <https://doi.org/10.1080/13527266.2014.969756>
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: The effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220-229.
- Rickard, L. N., & Yang, J. Z. (2023). Understanding support for aquaculture policy: The role of information exposure, information seeking, and source credibility. *Aquaculture*, 575, 739769. <https://doi.org/10.1016/j.aquaculture.2023.739769>
- Rodrigo, S. P. (2024). *The role of social media in small and medium-sized restaurant businesses: A case study from Östersund, Sweden*. Retrieved from <https://www.diva-portal.org/smash/get/diva2:1834754/FULLTEXT01.pdf>
- Romadhany, Y. I., & Hakim, L. (2024). The effect of green marketing on product purchasing decisions with e-wom as a mediating variable. *Jurnal Ilmiah Manajemen Kesatuan*, 12(1), 245-254. <https://doi.org/10.37641/jimkes.v12i1.2397>
- Román-Augusto, J. A., Garrido-Lecca-Vera, C., Lodeiros-Zubiria, M. L., & Mauricio-Andia, M. (2023). How to reach green word of mouth through green trust, green perceived value and green satisfaction. *Data*, 8(2), 25. <https://doi.org/10.3390/data8020025>
- Sabharwal, D., & Narula, S. (2024). Measuring the impact of eco-friendly or green marketing on buying behaviour of Indian consumers. *International Journal of Business and Globalisation*, 36(2-3), 225-240. <https://doi.org/10.1504/ijbg.2020.10039552>
- Shivaprasad, H., & Rani, A. (2020). Building web-analytics system to measure perceived source credibility in electronic word of mouth communication. *International Journal of Information Systems and Social Change*, 11(2), 1-13. <https://doi.org/10.4018/ijissc.2020040101>
- Simanjuntak, M., Nafila, N. L., Yuliati, L. N., Johan, I. R., Najib, M., & Sabri, M. F. (2023). Environmental care attitudes and intention to purchase green products: Impact of environmental knowledge, word of mouth, and green marketing. *Sustainability*, 15(6), 5445. <https://doi.org/10.3390/su15065445>
- Yang, M., Chen, H., Long, R., & Yang, J. (2022). The impact of different regulation policies on promoting green consumption behavior based on social network modeling. *Sustainable Production and Consumption*, 32, 468-478. <https://doi.org/10.1016/j.spc.2022.05.007>
- Zhang, J. Q., Craciun, G., & Shin, D. (2010). When does electronic word-of-mouth matter? A study of consumer product reviews. *Journal of Business Research*, 63(12), 1336-1341. <https://doi.org/10.1016/j.jbusres.2009.12.011>
- Zouari, G., & Abdelhedi, M. (2021). Customer satisfaction in the digital era: Evidence from Islamic banking. *Journal of Innovation and Entrepreneurship*, 10, 1-18. <https://doi.org/10.1186/s13731-021-00151-x>

Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Management and Sustainability shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.