

Article

Influence of Greenwashing on Customer Satisfaction, Perceived Quality of Environmentally-Friendly Products, and Green Word-of-mouth: In Cosmetics Industry

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Received: Feb 21, 2024; **Revised:** Mar 27, 2024; **Accepted:** Apr 8, 2024; **Published:** May 21, 2024

Abstract: Greenwashing began in the 1960s when hotels started asking customers to reuse towels to save the environment and save costs for laundry. In many industries including the cosmetics industry, the green market has been growing as companies need to include the concept of sustainability in their business plans. In the past ten years, the market for natural and organic cosmetics has been expanding. Therefore, it is needed to ascertain customers' perception of greenwashing. We evaluated the influence of greenwashing on perceived ecological sustainability, customer contentment, and the dissemination of favorable word-of-mouth for environmentally friendly products. Descriptive and quantitative methods were used to investigate the correlation of variables from the data collected using non-probability and purposive sampling from 200 participants.

Keywords: Greenwashing, Green satisfaction, Perceived green quality, Green word of mouth, Cosmetics

1. Introduction

It is essential to explore greenwashing as it helps to increase awareness regarding deceitful marketing tactics for customers to make ecological decisions. For greenwashing, transparency and incentivizing environmentally friendly behaviors are demanded to enable consumers to make well-informed choices and cultivate sustainable markets. Females enjoy wearing make-up and care about healthy ingredients for skin, environment, and animals. The act of portraying various things as environmentally responsible, despite being far from the truth, is sometimes referred to as "Greenwashing".

For example, Covergirl's new product "Lash Blast Clean Beauty Mascara" is contained in a light green tube, and "clean beauty" presents it to be an eco-friendly product without parabens or sulfates. However, the mascara sells in a chunky plastic tube, and the list of ingredients is anything but clean. Many customers prefer stores with a wide range of environmentally friendly products. Almost every product in these stores claims to be "natural," "sustainable," "recyclable," "biodegradable," and so on. In today's business landscape, companies frequently employ the term "organic" and prominently showcase it on their packaging, websites, and commercials. Consumers need to be cautious about green products due to environmental issues that are challenging for the public to understand without the intricate nature of scientific terms. Furthermore, the evaluations of products frequently focus on a single environmental advantage, resulting in an inadequate and deceptive claim.

Companies often engage in greenwashing and strategically disclose favorable information about the environmental attributes of their products while concealing any negative information. They tend to create the perception among consumers that they are environmentally friendly, thereby raising their reputation and generating positive word-of-mouth regarding their green initiatives. Consequently, customers are becoming more skeptical of businesses engaging in opportunistic greenwashing. To enhance consumer perception, contentment, and reputation, companies need to minimize greenwashing and provide consumers with ample and trustworthy product information. Without delivering trustworthy information, they cannot convince their consumers to have faith in their environmentally friendly assertions. In this study, we suggested a framework to enhance customers' awareness of environmental sustainability by greenwashing, perceived green quality, green satisfaction, and green word-of-mouth communication.

2. Methodology

Previous research results provided empirical support for the efficacy of greenwashing, as consumers have tended to accept misleading environmental advertising claims due to their pro-environmental motivations. Moreover, when consumers do not perceive an advertisement as deceptive, they develop a more positive attitude toward the advertisement. 69% of consumers preferred buying products from environmentally friendly companies [1]. Additionally, extant literature suggested that consumers with a more favorable attitude towards an advertisement are more inclined to have a stronger intention to purchase the advertised product [2](p. 48–60).

The environmental initiatives taken by hotels affect the customer's perception of greenwashing. These initiatives include practices such as sharing knowledge about sustainability, using green marketing strategies, providing transparent information about their environmental efforts, making claims about resource conservation, and obtaining environmental certifications. Additionally, customers' perceptions of greenwashing impact the behaviors related to environmental concerns. This, in turn, is influenced by the attitudes of customers toward environmental issues [3](p. 1125–1146). On the contrary, deceptive practices in green falsehoods may harm a company [4].

Only a limited number of research referred to the phenomenon of greenwashing. This word has gained popularity following its introduction in a book on environmental marketing [5]. Subsequently, there have been substantial research results on greenwashing. The Oxford English Dictionary defines this concept as "the intentional spread of false or misleading information by an organization to project a positive image of environmental responsibility" [6](p. 377–414). The terminology in question, as well as the scholarly discourse surrounding it, appears to possess a wide-ranging and imprecise nature. International experts and specialists from varied sectors have developed multiple definitions of greenwashing.

We analyzed the correlations between greenwashing and the perceived environmental quality of products, customer satisfaction with environmentally friendly items, and word-of-mouth communication about environmentally friendly products in this study with the following hypothesis.

H1: There is a positive correlation between green satisfaction and word of mouth.

H2: There is a negative correlation between greenwashing and green satisfaction.

H3: Greenwashing has a negative correlation with green word-of-mouth communication about environmentally friendly practices.

H4: There is a negative correlation between greenwashing and the perceived green quality.

H5: There is a positive correlation between the perceived green quality and green word of mouth.

2.1 Perceived Green Quality

The consumer's prior perception affects the perceived quality, which is evaluated by assessing service capacity, performance, ease of use, and product functionality. Nevertheless, due to concerns about the inferior quality or deceptive advertising of organic products, customers exhibit hesitancy in purchasing them [7](p. 441–460). Hence, the perceived level of green quality significantly influences the establishment of product confidence. Green perceived quality pertains to the extent to which consumers perceive a product or service to be environmentally friendly. It includes convictions regarding the sustainability, eco-friendliness, and overall environmental consequences of a specific product or service. The assessment is subjective and is impacted by marketing, branding, and the actual environmental practices of the product or service.

Greenwashing undermines the perceived environmental sustainability by generating a deceptive perception of eco-friendliness. Deceptive marketing methods by companies mislead consumers into believing that a product or service is more environmentally friendly than it is. Such behavior erodes trust, weakens sincere endeavors toward sustainability, and results in disillusionment among consumers who are looking for really ecologically responsible options. Greenwashing, which refers to the dissemination of false or incorrect product information, diminishes the perceived environmental friendliness of organic products [8](p. 253–261). As a result, greenwashing is associated with a bad perception of environmental friendliness.

2.2 Green Satisfaction

Green satisfaction pertains to the degree of enjoyment or fulfillment that a consumer obtains when utilizing or acquiring a product or service that is viewed as being environmentally friendly or sustainable. It indicates the degree to which the product corresponds with the consumer's attitudes and expectations on environmental responsibility. Consumers experience high levels of satisfaction when they believe that their choice positively contributes to environmental conservation and sustainability. According to Ref. [9], satisfaction and loyalty refer to the consistent repurchasing of a product or service, even when faced with situations or marketing strategies that could potentially lead to changes in behavior. When products prioritize security and consumer confidence, it results in higher satisfaction and fosters a loyal relationship between the consumer and the product or service. Satisfaction is

derived from the pleasure that consumers experience [9]. To enhance the sales of organic products and improve customer satisfaction with environmentally-friendly products, it is necessary to enhance the performance of the organic products [10](p. 63–82). There is a positive correlation between greenwashing and the perceived risk by consumers, which declines customer satisfaction with green products [11](p. 32–36). However, if buyers are unable to differentiate between reliability and environmental claims, the conduct of Greenwashing will have a detrimental impact on green customer satisfaction [12](p. 728–754).

2.3 Green Mouth-of-word

Mouth-of-word refers to the verbal exchange of messages or suggestions about products between persons. A product that exhibits high quality, user-friendly design, and exceptional performance tends to earn strong word-of-mouth recommendations. Green mouth-to-ear refers to the communication of a product's beneficial ecological messages [13](p. 169–188). Greenwashing influences the communication of environmentally friendly information. When companies mislead customers through greenwashing, false information is disseminated, and the credibility of advice exchanged through personal communication is undermined. This erodes the confidence in eco-friendly methods, resulting in a possible weakening of authentic green communications as consumer skepticism increases. It emphasizes the significance of transparent and genuine sustainability endeavors in promoting constructive dialogues within the environmental community. Companies that engage in greenwashing might negatively impact consumer perceptions of their environmentally friendly marketing efforts [14](p.15–28). Furthermore, it compels consumers to express unfavorable environmental sentiments regarding organic products [6]. Greenwashing negatively impacts the reputation of environmentally conscious individuals.

The perceived quality of green products is essential in influencing favorable discussions among the network of individuals who share information through word-of-mouth. Consumers who truly believe in the environmental sustainability of a product or service are more inclined to share positive experiences and recommendations. Genuine green practices enhance credibility, generating a stronger network of recommendations focused on authentic sustainability. Conversely, when the perceived level of environmental friendliness is undermined as a result of greenwashing, it results in doubt and decreases favorable word-of-mouth communication among individuals who prioritize environmental sustainability. There is a positive correlation between the perceived green quality and the green mouth-to-ear [15](p. 31–46), and the perception of high environmental quality results in a favorable word-of-mouth effect [16](p. 229–242). The presence of green contentment is beneficial in the green mouth-to-ear phenomenon. If consumers are truly content with eco-friendly products or services, they are inclined to communicate their favorable experiences with others. This phenomenon generates a cascading impact as contented individuals actively participate in the network of informal communication, advocating for authentic environmentally friendly behaviors and inspiring others to adopt eco-conscious decisions. The high level of satisfaction with green initiatives significantly improves the genuineness and effectiveness of positive discussions within the community for sustainable living. A loyal customer is content with the product or service, and conversely, a satisfied customer remains loyal to the brand or company. Satisfaction is the key to establishing positive consumer interactions [17](p. 461–477).

2.4 Procedure

Structural Equation Modeling (SEM) was used to analyze the data from the survey. SEM is an effective tool for deciphering intricate relationships among variables. The model embodied the underlying structure and causal influences. To ensure precision, each facet was determined to represent a precise measurement of a variable. Latent variables, such as subtle essences, were determined to enrich the result including greenwashing, green perceived quality, green satisfaction, and green word of mouth. SmartPLS 4 was used to analyze the data. The descriptive statistics revealed that 54.5% of the respondents were female and 45.5% were male. The majority of respondents held a master's degree as their highest level of education, and a significant number of the respondents were employed on a full-time basis. Thus, the responders were regarded as genuine buyers. Calculations of convergent and discriminant validity were performed to evaluate the measurement model [18]. Based on the result, validity was confirmed for convergence and discriminant.

Convergent validity is a statistical concept in research and measurement to assess the relationship between variables. Convergent validity refers to the degree of association between the various components of a latent entity. It is used to examine the comparability of outcomes obtained from several methods of measuring a particular concept. A significant convergent validity indicates that multiple measurements are converging, hence providing evidence that they are effectively capturing the same underlying construct. The following are the three criteria used to determine the convergent validity of a proposed hypothesis in this study.

Initially, we constructed a model by incorporating the four variables and 16 items corresponding to them. Factor analysis was used to eliminate factors that lacked adequate relevance. Factors with an explanatory value lower than 0.70 were eliminated. A score equal to or more than 0.70 signified that the measuring scales were reliable and accurate.

3. Results and Discussions

The perception of greenwashing among consumers was assessed in this study through a quantitative investigation. Respondents who had used cosmetic products such as shampoos, creams, and others were recruited from all over the world. To test the hypotheses, we collected data through a questionnaire survey for the participants. We distributed the questionnaire on various platforms such as Instagram, Facebook, and WhatsApp. To exclude any possibility of prejudice, we created questions to understand in terms of the language used, the replies, the text type, and the text size. To determine how much respondents agreed or disagreed with the questions, a Likert scale of five points was used (Table 1): a score of 5 indicated entire agreement, while a score of 1 showed complete dissent. 200 respondents were instructed. Gender, age, education level, place of origin, and present employment were investigated in this study. In the questionnaire, all questions were closed-ended. Scoring was supported by the explicitness of the goals for the respondents and the simplicity of filling out the questionnaire. The initial analysis was flawed due to a lack of comprehension regarding the true essence of greenwashing. Consequently, a subsequent survey was conducted to simplify the language to ensure better understanding.

Table 1. Likert scale for items in questionnaire.

Item 1	From STRONGLY DISAGREE to STRONGLY AGREE.
Item 2	From NOT CONFIDENT to VERY CONFIDENT.
Item 3	From UNLIKELY to VERY LIKELY.
Item 4	From NEVER to ALWAYS.
Item 5	From VERY DISSATISFIED to VERY SATISFIED.
Item 6	From A LITTLE to A LOT.
Item 7	From NOT LIKELY to VERY LIKELY.
Item 8	From NOT AT ALL to SIGNIFICANTLY.
Item 9	From RARELY to FREQUENTLY.
Item 10	From LITTLE INFLUENCE to SIGNIFICANT INFLUENCE.
Item 11	From NOT TRUSTWORTHY to VERY TRUSTWORTHY.
Item 12	From NOT LIKELY to VERY LIKELY.
Item 13	From NOT LIKELY to VERY LIKELY.
Item 14	From LITTLE INFLUENCE to SIGNIFICANT INFLUENCE.
Item 15	From RARELY to FREQUENTLY.
Item 16	From STRONGLY DISAGREE to STRONGLY AGREE.

3.1. Factor Loadings

Factor loading higher than 0.70 was selected in this study [18]. The factor loadings of the components of green satisfaction (GS) were 0.961, 0.899, 0.961, and 0.185. Four components of greenwashing (GW) showed a loading of 0.962, 0.845, 0.970, and 0.764. The three components of green word-of-mouth communication (GWM) had the loadings were 0.975, 0.893, and 0.975. The loadings of the five components of perceived green quality (PGQ) were 0.890, 0.913, 0.896, 0.877, and 0.921 (Table 2).

Table 2. Factor loading of components of variables.

Variables	GS	GW	GWM	PGQ
GS1	0.961			
GS2	0.899			
GS3	0.961			

Table 2. cont.

GS4	0.185		
GW1		0.962	
GW2		0.845	
GW3		0.970	
GW4		0.764	
GWM1			0.975
GWM2			0.893
GWM3			0.975
PGQ1			0.890
PGQ2			0.913
PGQ3			0.896
PGQ4			0.877
PGQ5			0.921

After deleting the component GS4, we obtained factor loadings again for the rest components. The results are shown in Table 3 and Fig. 1. The removal of GS4 made it clear that all of the remaining components showed factor loadings higher than 0.7, which indicated the reliability and validity of the analysis.

Table 3. Factor loadings after deletion of GS4.

Variables	GS	GW	GWM	PGQ
GS1	0.964			
GS2	0.901			
GS3	0.964			
GW1		0.963		
GW2		0.845		
GW3		0.970		
GW4		0.764		
GWM1			0.975	
GWM2			0.893	
GWM3			0.975	
PGQ1				0.890
PGQ2				0.913
PGQ3				0.896
PGQ4				0.877
PGQ5				0.921

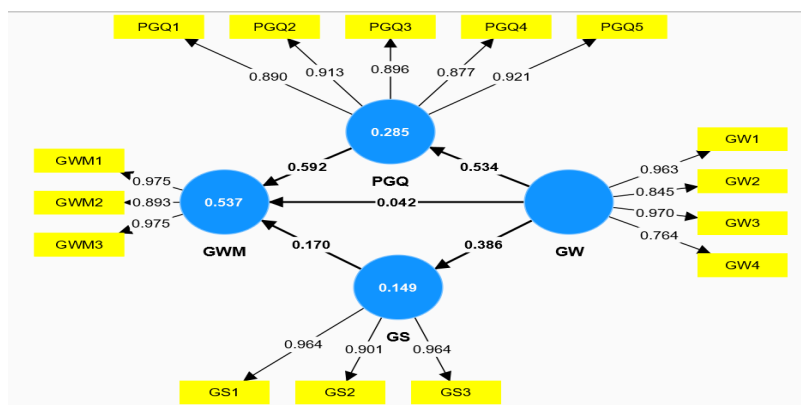


Fig. 1. Model after deletion of GS4.

3.2. Figures, Tables and Schemes

In the SEM, composite reliability presents the internal consistency of a latent variable which is an unobservable variable. The factor loadings and measurement error variances of components of a latent variable are used to calculate composite reliability. The shared variance and measurement error are used to investigate which observed variables accurately represent the underlying construct. When the composite reliability values are higher and closer to 1, it indicates that the latent variable has a higher level of internal consistency. In assessing the quality of measurement models in SEM, this is an essential component to consider. Composite reliability (CR) must be higher than 0.7. Composite reliability is used to measure the degree of fulfillment of requirements in research or a survey. Cronbach's alpha of 0.7 or higher confirms CR. Cronbach's alpha of GW, GWM, GS, and PGQ were 0.909, 0.943, 0.938, and 0.941. The CR of the variables are presented in Table 4.

Table 4. CR of variables in this study.

	Cronbach's alpha	Composite reliability (rho a)	Composite reliability (rho c)	Average variance extracted (AVE)
GS	0.938	0.948	0.961	0.890
GW	0.909	0.938	0.938	0.791
GWM	0.943	0.943	0.964	0.899
PGQ	0.941	0.950	0.955	0.809

3.3. Average Variance Extracted (AVE)

AVE is used to evaluate the convergent validity of a latent variable, which is an unobservable construct measured by several indicators. The calculation of AVE involves taking the average of the squared factor loadings divided by the sum of the error variance and the average of the squared factor loadings. AVE varies from 0 to 1, and a higher AVE indicates a greater proportion of the variance of the underlying latent variable. When assessing the validity and reliability of latent factors in the SEM, AVE is important. A value greater than 0.50 must be obtained for validity. The AVE of GS, GW, GWM, and PGQ was 0.890, 0.791, 0.899, and 0.809.

3.4 Discriminant validity

Discriminant validity is used to determine a measure's accuracy in differentiating a construct or notion. It is used to verify the correlation and distinctive characteristics of variables. Discriminant validity is tested using cross loading and Heterotrait-Monotrait Ratio (HTMT). In the SEM, cross loading is an indicator to quantify a latent variable's loading. Each indicator in the SEM needs to have a high loading on the latent variable. With low cross loadings, there may be problems in the model that need to be solved by reconstructing a framework, modifying indicators, or refining the model. To ensure that the measurement model in SEM is correct, it is essential to evaluate and analyze cross loading patterns. Table 5 shows the cross loadings of variables in this study.

Table 5. Cross loadings of variables.

	GS	GW	GWM	PGQ
GS 1	0.964	0.333	0.477	0.606
GS 2	0.901	0.412	0.580	0.527
GS 3	0.921	0.255	0.407	0.502
GW 1	0.371	0.963	0.445	0.573
GW 2	0.257	0.845	0.287	0.375
GW 3	0.372	0.970	0.408	0.532
GW 4	0.358	0.764	0.341	0.381
GWM 1	0.501	0.347	0.975	0.694
GWM 2	0.558	0.513	0.893	0.654
GWM 3	0.540	0.320	0.960	0.640
PGQ 1	0.484	0.455	0.666	0.890
PGQ 2	0.554	0.419	0.794	0.913
PGQ 3	0.502	0.404	0.529	0.896
PGQ 4	0.656	0.437	0.562	0.877
PGQ 5	0.565	0.657	0.642	0.921

HTMT is used to test discriminant validity. To ensure that factors are distinctive from one another, discriminant validity is tested using HTMT. The HTMT ratio is determined by taking the square root of the AVE of a construct and dividing it by the correlation coefficient between factors. The HTMT ratio of lower than 0.90 indicates that the factors possess discriminant validity. Table 6 displays the HTMT values of the variables, and all values were lower than 0.9, which showed that the criteria were appropriate. Therefore, the model showed convergent validity.

Table 6. Heterotrait-Monotrait Ratio (HTMT).

	GS	GW	GWM	PGQ
GS				
GW	0.409			
GWM	0.576	0.452		
PGQ	0.655	0.560	0.753	

3.5 Testing Model

In the SEM, the model test is essential. the connections between the latent variables are analyzed to validate hypothesized pathways or links between the variables of the model. Path coefficients (structural coefficients or regression weights) are examined to evaluate the strength and relevance of the paths that connect the latent variables. The amount and direction of the links between the latent variables are verified using path coefficients. In addition, the overall fit of the model to the data is assessed using the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and other similar indices. When the structural model has a good fit, it accurately depicts the relationships between variables. The model test is essential to understand the underlying mechanisms and interactions and validate hypotheses to conclude regarding the relationships between the variables. In this study, P-values were used as path coefficients and indicators of the statistical significance of the associations of the variables. A p-value below 0.01 indicates that the observed effect is highly improbable, thereby rejecting the null hypothesis that there is no effect. Table 7 shows the result of the test of the model in this study.

There was a statistically significant correlation between the variables as the P-values of Hypotheses 2, 3, 4, and 5 were 0.00. Hypotheses H2, H3, H4, and H5 were consistent with the evidence. However, the P-value of Hypothesis 1 was 0.024 and was not supported.

Table 7. Model test results.

Hypothesis	Relation	Original Sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
H1	GS --> GWM	0.170	0.169	0.075	2.264	0.024	Not supported
H2	GW --> GS	0.386	0.389	0.065	5.904	0.000	Supported
H3	GW --> GWM	0.424	0.425	0.066	6.431	0.000	Supported
H4	GW --> PGQ	0.534	0.535	0.064	8.368	0.000	Supported
H5	PGQ --> GWM	0.592	0.594	0.083	7.122	0.000	Supported

3.6 Discussion

All hypotheses except for the first one were supported. GS was negatively linked to GWM, particularly when it was spread through personal communication. GW contributed to negative communication, despite its potential to play a significant role in fostering negative relationships. Companies with greenwashing advertise their products or services as eco-friendly, even if they are not. This deceptive practice erodes consumer confidence and has detrimental effects on the environment and the company's image. Consumers must be careful and try to seek proof of authentic environmental dedication from companies, such as third-party certifications, transparent reporting, and verifiable sustainability initiatives. Regulatory bodies and consumer advocacy groups have a responsibility to hold companies liable for inaccurate or deceptive environmental assertions. The findings suggest that Greenwashing detracts the level of satisfaction with environmentally friendly products and the perception of their quality, which in turn is positively linked to word-of-mouth communication about their environmental attributes. Consequently, companies need to fully and enduringly dedicate themselves to stop using greenwashing practices, while simultaneously enhancing the perceived environmental friendliness of their products or services to generate favorable word-of-mouth endorsement.

4. Conclusions

We examine the perceptions and impact of greenwashing on consumer behavior related to environmental concerns. Existing literature and contemporary research showed that greenwashing has a detrimental effect on the inclination to purchase environmentally friendly items. The results of this study confirmed the findings and the necessity of increasing the consciousness of consumers with a higher level of education. Contemporary consumers with extensive knowledge and vigilance can realize the company's environmental assertions. The concept of "greenwashing" shows how companies impact the environment or society in a favorable light, disregarding reality. The results of this study showed that customers' perceptions of greenwashing affect their purchasing intentions and choices of products and provided evidence for purchasing intentions and the significance of greenwashing ideas within this context. Greenwashing significantly influenced customer behavior. By investigating the impact of consumers' perceptions of a company's greenwashing on their subsequent purchasing decisions, customers can purchase environmentally friendly products, not engaging in greenwashing. This affects customers' concrete purchasing behaviors for environmentally friendly products. Companies must be prudent in issuing environmental declarations, while customers need to practice sustainable behavior. To establish consumer trust, communication in marketing, packaging, and other channels must be unequivocal. The impact of greenwashing on the transmission of knowledge through word-of-mouth was verified in this study. Greenwashing negatively impacted word-of-mouth communication by influencing attitudes. A robust inverse correlation between the perception of greenwashing and the occurrence of word-of-mouth communication was revealed in this study. Individuals are less inclined to endorse a company if they perceive it to be deceitful regarding its environmental practices. The gradual decline in favorable word-of-mouth communication suggested the dependability of the company. Companies with unethical practices harm their reputation and diminish positive information. As greenwashing is commonly linked to ethical and legal concerns, it underscores their environmental assertions. The findings of this study demonstrate the significance of engaging in genuine, environmentally sustainable activities from an ethical standpoint, as well as their potential for effectively disseminating positive messages through consumer-driven word-of-mouth communication.

This study has constraints such as the lack of references regarding greenwashing and its relationship with perceived quality, contentment, and green word-of-mouth communication. An online questionnaire survey was not effective in gathering data. Students of the university were major respondents, so a diverse group of consumers needs to be included in further study. Focusing on the cosmetics industry, there is a limitation to applying the findings to other industries. To decrease greenwashing, sincerity is demanded to strengthen the credibility and green image of companies to increase the perceived green quality and greater happiness of consumers..

Author Contributions: Conceptualization, N.-E. H. Rebai and Y. Liu ; methodology, N.-E. H. Rebai. Software, N.-E. H. Rebai; Validation, Y. Liu. formal analysis, N.-E. H. Rebai; investigation, N.-E. H. Rebai; Y. Liu; C.-N. Xie; Z.Wang; resources, N.-E. H. Rebai; Y. Liu; data curation, N.-E. H. Rebai; Y. Liu; C.-N. C.-N. Xie; Z.Wang; writing—original draft preparation, N.-E. H. Rebai; writing—review and editing, N.-E. H. Rebai; visualization, N.-E. H. Rebai; Y. Liu; supervision, Y. Liu. All authors have read and agreed to the published version of the manuscript.

Funding: This research did not receive external funding.

Data Availability Statement: The data of this study are available from the corresponding author upon reasonable request.

Acknowledgements: I would want to sincerely thank all those who have played a crucial role in ensuring the success and depth of our study.

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

References

1. Carlsson-Kanyama, A. and Friberg, L.H. Views on climate change and adaptation among politicians and directors in Swedish municipalities. Available online: <https://libris.kb.se/bib/13458427> (accessed on March 10, 2024)
2. Newell, S.J., R.E. Goldsmith, and E.J. Banzhaf, The effect of misleading environmental claims on consumer perceptions of advertisements. *Journal of Marketing Theory and Practice*, **1998**, 6(2), 48–60.
3. Majeed, S. and W.G. Kim, A reflection of greenwashing practices in the hospitality industry: a scoping review. *International Journal of Contemporary Hospitality Management*, **2023**, 35(3), 1125–1146.
4. Berrone, P., Green L. How Greenwashing Can Destroy a Company (and How to go Green without the Wash). Createspace Independent Publishing Platform: Scotts Valley, CA, USA; 2016.
5. Greer, J. and K. Bruno. *Greenwash: The reality behind corporate environmentalism*. Rowman & Littlefield Publishers: Lanham, MD, USA; 1996.
6. Ramus, C.A. and I. Montiel, When are corporate environmental policies a form of greenwashing? *Business & Society*, **2005**, 44(4), 377–414.

7. Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of consumer marketing*, 16(5), 441–460
8. Laufer, W.S., Social accountability and corporate greenwashing. *Journal of Business Ethics*, 2003, 43, 253–261.
9. Oliver, R.L. *Satisfaction: A behavioral perspective on the consumer*. Routledge: New York, NY, USA; 2014.
10. Chen, Y.S. and C.H. Chang. Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction. *Management decision*, 2013, 51(1), 63–82.
11. Slaughter, P. Avoid the pitfalls of greenwash. *Home Furnishings Business*, 2008, 3(2), 32–36.
12. Jones, E. Rethinking greenwashing: Corporate discourse, unethical practice, and the unmet potential of ethical consumerism. *Sociological Perspectives*, 2019, 62(5), 728–754.
13. Söderlund, M. Customer satisfaction and its consequences on customer behaviour revisited: The impact of different levels of satisfaction on word-of-mouth, feedback to the supplier and loyalty. *International journal of service industry management*, 1998, 9(2), 169–188.
14. Parguel, B., F. Benoit-Moreau, and F. Larceneux. How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of business ethics*, 2011, 102, 15–28.
15. Zeithaml, V.A., L.L. Berry, and A. Parasuraman. The behavioral consequences of service quality. *Journal of marketing*, 1996, 60(2), 31–46.
16. Chaniotakis, I.E. and C. Lymporopoulos. Service quality effect on satisfaction and word of mouth in the health care industry. *Managing Service Quality: An International Journal*, 2009, 19(2), 229–242.
17. Zhang, X. and V.R. Prybutok. A consumer perspective of e-service quality. *IEEE transactions on Engineering Management*, 2005, 52(4), 461–477.
18. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. (2006). *Multivariate data analysis*. Pearson: Uppersaddle River, NJ, USA.

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