Understanding Women's Interpretation of Digital Sustainability Claims: An Empirical Study on Greenwashing in the Skincare Industry

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ABSTRACT

The rise of sustainability-driven marketing in the global skincare industry has been accompanied by an increase in greenwashing, making it difficult for consumers, especially women, to distinguish authentic eco-friendly claims from misleading representations. The present study critically examines women's awareness of greenwashing, their digital information-seeking behaviours, and their ability to evaluate sustainability claims in skincare products. Using a descriptive research design, data were collected from 125 digitally active women aged 18–36 years in Vadodara, Gujarat, through a structured questionnaire pre-tested for clarity and relevance. The findings reveal substantial gaps in the understanding of greenwashing, with 72 per cent of respondents unable to correctly define the term and a majority relying on visual cues such as colour, packaging style, and labelling to judge sustainability. Results also show that misleading sustainability messages are common, with 64 per cent of respondents reporting prior experiences of feeling misled. A t-test indicated a significant difference in authenticity ratings between high- and low-awareness groups ($p < .001$), while correlation analysis showed a moderate negative relationship ($r = –0.34$) between online information-seeking behaviour and susceptibility to greenwashing. The study highlights the critical role of digital literacy, credible eco-certification understanding, and transparent marketing communication in reducing consumer vulnerability to greenwashed skincare claims. Recommendations emphasize improving sustainability communication standards, strengthening consumer education, and fostering responsible digital marketing practices.

INTRODUCTION

In recent years, rising environmental concerns and growing awareness of health-related issues have significantly influenced consumer behaviour in the global cosmetics industry, particularly within the skincare segment **(Ajayi et al., 2024)**. Women are increasingly prioritising ethical, organic, and environmentally responsible skincare products, aligning their choices with values related to personal well-being and planetary health **(Gincy et al., 2024)**. In response, brands have intensified the use of sustainability-oriented narratives, natural imagery, and eco-friendly positioning to attract environmentally conscious consumers **(Tripathi & Pawar, 2025)**. However, this surge in green marketing has simultaneously led to an increase in greenwashing, wherein brands exaggerate or misrepresent the environmental benefits of their products to enhance their market image **(Khandelwal et al., 2019)**.

The rapid expansion of digital media has further complicated this landscape. Social media platforms, influencer-driven endorsements, targeted advertisements, and visually persuasive product displays now serve as major communication channels for skincare marketing. These digital cues often blur the distinction between authentic sustainability claims and misleading "green" representations, making it difficult for consumers to critically evaluate the credibility of such information **(Williams, 2024)**. Prior studies show that inconsistent environmental messaging, ambiguous green visuals, and lack of third-party certifications on digital platforms undermine consumer trust and shape perception more strongly than traditional advertising formats. Women, who represent one of the most digitally active consumer groups for skincare, are particularly influenced by online reviews, influencer recommendations, and user-generated content, factors that enhance both empowerment and vulnerability in online shopping environments **(Tao et al., 2022)**.

Despite increasing scholarly attention on sustainable consumption and green marketing, limited research has examined how digital behaviours, such as online information-seeking patterns, platform usage, and eco-certification literacy, interact with women's ability to identify greenwashing within skincare communication. This gap is critical, as digital environments amplify both authentic and deceptive sustainability claims. Moreover, while existing studies have explored purchase intention, consumer trust, and attitudes toward green products, few have integrated these behavioural, cognitive, and digital factors into a single analytical framework.

The present study addresses this research gap by examining how women interpret sustainability claims in skincare products within digital contexts. Specifically, it investigates their awareness of greenwashing, the influence of digital marketing cues on perceived authenticity, and the relationship between online information-seeking behaviour and the ability to detect misleading claims. By adopting a multidimensional approach that combines digital engagement, sustainability literacy, and consumer perception, the study provides deeper insights into women's vulnerability to greenwashed skincare communication. Ultimately, the research aims to contribute to consumer empowerment, promote more transparent sustainability communication, and support responsible digital marketing practices in the skincare industry.

REVIEW OF LITERATURE

A substantial body of research has examined the increasing prevalence of greenwashing and its impact on consumer behaviour, especially in markets where sustainability has become a key differentiator. **Gupta and Singh (2024)** demonstrated that consumer perceptions of greenwashing negatively affect purchase intentions for green products, with attitudes mediating this relationship. Their findings highlight that misleading environmental claims reduce consumer confidence and weaken the behavioural intention to choose eco-friendly alternatives. Complementing this, **Hossain et al. (2025)** explored the effects of greenwashing across diverse industries such as food, fashion, and hospitality. They found that greenwashing significantly diminishes both consumer trust and brand loyalty, with trust acting as a critical mediator. Notably, the fashion industry exhibited the highest sensitivity to misleading claims, indicating that the impact of greenwashing varies across sectors.

Parallel to concerns over deceptive sustainability claims, scholars have investigated the role of digital marketing and communication in shaping consumer perception of environmental messages. **Verrus et al. (2025)** emphasized that elements such as brand transparency, eco-labels, sustainable packaging, and ethical advertising play an essential role in building consumer trust within the FMCG sector. They argued that clear, verifiable, and ethically communicated sustainability cues are necessary to counter scepticism arising from greenwashing. These insights align with broader observations that consumers increasingly depend on digital content, including videos, influencer endorsements, and user-generated reviews, to evaluate the authenticity of sustainability claims.

Studies focusing specifically on women and sustainable skincare further highlight unique behavioural patterns in this consumer segment. **Singh (2024)**, in her investigation of female attitudes toward sustainable beauty products, identified key drivers influencing women's choices: environmental consciousness, brand reputation, efficacy, and price. The study underscored that marketing communication, particularly through digital channels, plays a central role in shaping perception, trust, and purchase intention.

Across these studies, recurring themes emerge. First, trust and transparency are critical to consumer acceptance of sustainability claims. Second, digital ecosystems—including influencers, packaging visuals, and online reviews significantly influence perception, often more strongly than traditional marketing. Third, consumers, especially women, demonstrate varying levels of vulnerability and empowerment depending on their digital literacy and understanding of eco-certifications.

However, despite the depth of existing research, a notable gap persists: few studies integrate the combined effects of digital marketing cues, eco-label understanding, and women's ability to identify greenwashing in skincare communication. Most existing frameworks examine these variables in isolation rather than through an interconnected lens. The present study addresses this gap by providing a holistic examination of the cognitive, behavioural, and digital factors shaping women's evaluation of sustainability claims in skincare products.

JUSTIFICATION

Although sustainability has become a major focus in the global skincare industry, the rapid growth of digital marketing has intensified the challenge of distinguishing authentic environmental claims from greenwashed content. Women, who form one of the largest and most digitally active skincare consumer groups, are constantly exposed to influencer endorsements, targeted advertisements, and symbolic packaging cues that often appear sustainable without offering verifiable evidence. Existing research has examined greenwashing, digital communication, and sustainable consumer behaviour separately, but there is limited understanding of how digital information-seeking patterns, awareness of eco-certifications, and perception of sustainability cues collectively influence women's ability to detect misleading claims. This gap is critical because low awareness, coupled with persuasive digital visuals, increases vulnerability to deceptive marketing.

Therefore, this study is justified in investigating the intersection of greenwashing awareness, digital engagement, and evaluation of skincare sustainability claims. By identifying how women interpret online sustainability messaging, the research contributes to strengthening consumer literacy, promoting ethical communication, and supporting more transparent and responsible marketing practices within the skincare sector.

OBJECTIVES OF THE STUDY

1. To assess the level of women's awareness and understanding of greenwashing and sustainability claims within the skincare industry.
2. To evaluate the impact of digital marketing cues and third-party eco-certifications on women's trust in and perception of skincare sustainability claims.
3. To examine the relationship between women's digital information-seeking behaviours and their ability to identify greenwashing in online skincare communications.

DELIMITATIONS OF THE STUDY

The study was limited to:
1. Women respondents only.
2. Women aged between 18 to 36 years.
3. Sustainability claims within the skincare industry, and did not examine other cosmetic or personal care categories.

HYPOTHESES

1. There is no significant association between women's level of greenwashing awareness and their tendency to accept skincare sustainability claims at face value.
2. There is no significant relationship between women's online information-seeking behaviour and their ability to identify greenwashing in skincare sustainability claims.

METHODOLOGY

The study adopted a descriptive research design and surveyed 125 digitally active women aged 18–36 years in Vadodara, Gujarat, selected through purposive and snowball sampling to ensure inclusion of regular online skincare consumers. Data were collected using a structured, self-administered questionnaire comprising items on demographic details, awareness of greenwashing, digital information-seeking behaviour, and evaluation of sustainability claims, measured primarily through Likert scales. The tool was pilot tested with 15 respondents for clarity, and key scales demonstrated acceptable reliability (Cronbach's $\alpha=0.78$). Ethical considerations were maintained through informed consent and anonymity. Data were analysed using descriptive statistics to assess awareness levels and perception patterns, while inferential tests, including independent-samples t-test and Pearson correlation, were used to examine differences between awareness groups and the relationship between digital information-seeking behaviour and greenwashing identification. This methodological framework enabled a systematic assessment of how digital cues influence women's interpretation of skincare sustainability claims.

FINDINGS AND DISCUSSIONS

This section presents the analysis of the collected data, focusing on the demographic background of the respondents, including their age, educational qualifications, occupation, and monthly household income. It further discusses the respondents' purchasing behavior for skincare products and their awareness of greenwashing. The influence of digital marketing on their perception of sustainable skincare products is examined, along with their experiences with eco-friendly claims made by brands. The findings obtained are as follows:

Section I: Demographic Profile of Respondents

The study surveyed 125 women aged 18–36 years, with a majority (72 per cent) belonging to the 18–25 age group, representing digitally native consumers who are highly active on social media and online skincare platforms. Educational qualifications were generally high, with 56 per cent holding undergraduate degrees and 36 per cent postgraduate degrees, indicating a sample capable of engaging with sustainability-related information yet still influenced by persuasive digital cues. Most respondents were students (64 per cent), followed by self-employed individuals (20 per cent), while household income was concentrated between ₹20,000 and ₹1,00,000 (72 per cent), reflecting moderate purchasing power. Skincare purchase behaviour showed consistent engagement, with 44 per cent buying products monthly and 32 per cent every three months.

Overall, this demographic profile **(Figure 01)** aligns with global trends, where young, educated women form the primary audience for digital skincare marketing and are especially responsive to visual, aesthetic, and influencer-driven sustainability messages.
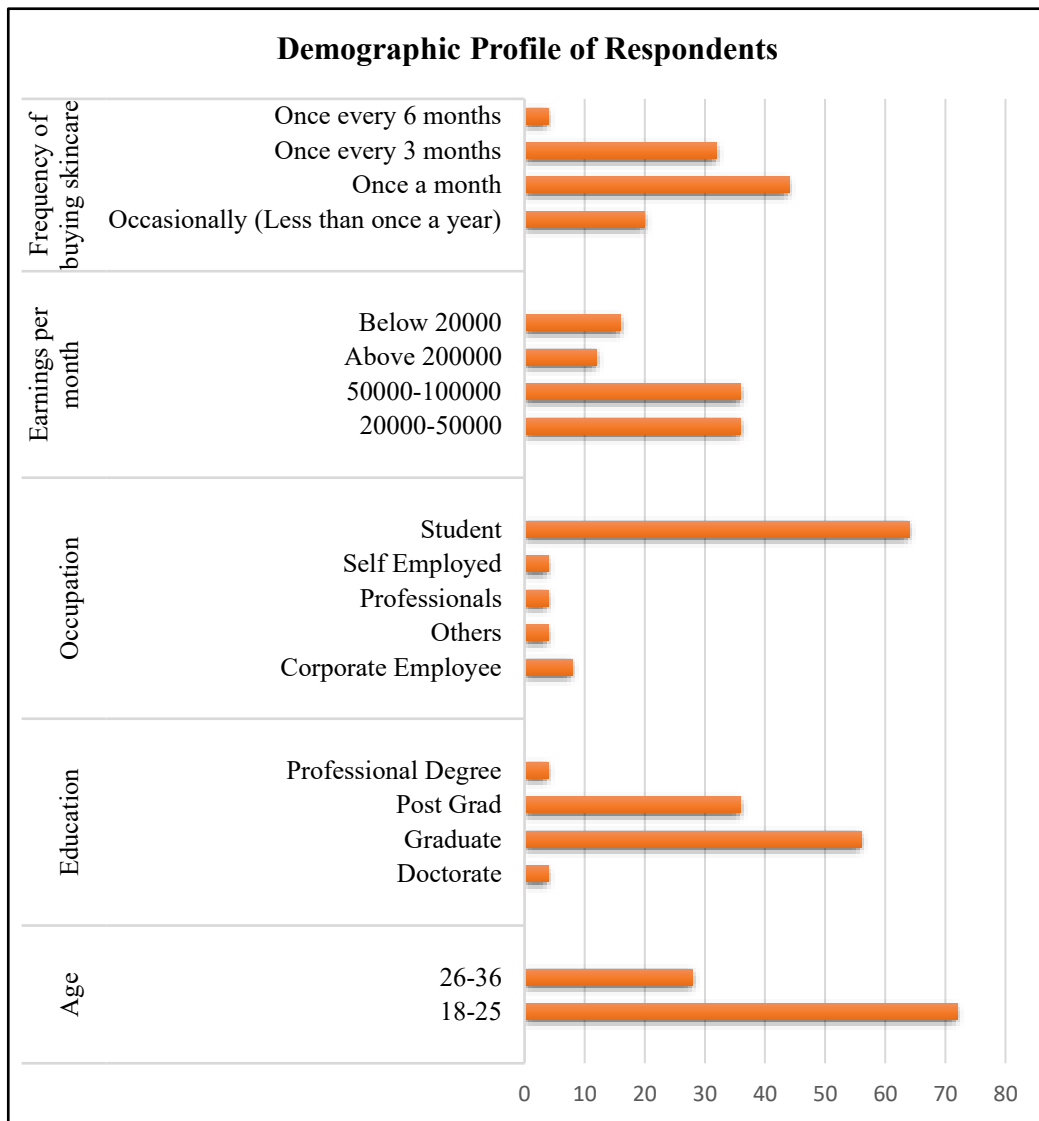
Figure 1: Percentage distribution of the respondents according to their demographic profile

Section II: Awareness of greenwashing in the skincare industry

Awareness of the term "Greenwashing"

The findings **(Figure 02)** indicate substantial gaps in consumer understanding of greenwashing. Only 28 per cent of respondents correctly identified the meaning of the term, while 72 per cent provided an incorrect definition. This low level of awareness suggests that most women may be unable to critically judge the authenticity of sustainability claims in skincare marketing, increasing their vulnerability to misleading environmental messages. The results emphasise the need for enhanced consumer education and clearer sustainability communication by brands.
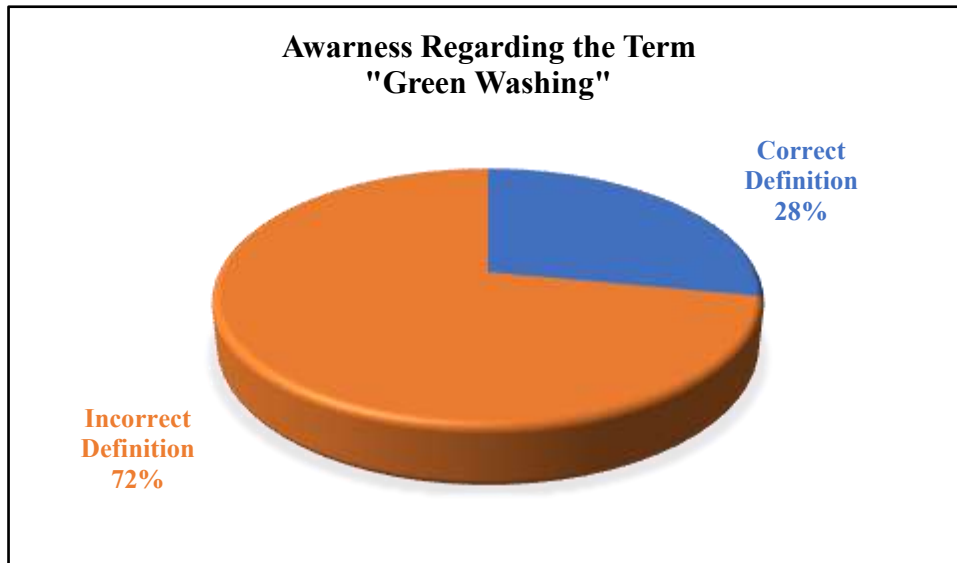
Figure 2: Percentage distribution of the respondents according to their accuracy in identifying the meaning of greenwashing.

Influence of Packaging Cues on Perceived Sustainability

The results show that packaging design strongly shaped respondents' perceptions of sustainability. Only 16 per cent correctly recognised that neither of the presented product images demonstrated authentic sustainability, while a large majority, 84 per cent incorrectly perceived one of the products as more sustainable. This indicates that visual cues such as colour schemes, minimalist layouts, and eco-themed imagery exert a strong influence on consumer judgement, even when no verifiable sustainability information is provided. These findings highlight a reliance on superficial design elements rather than evidence-based evaluation, underscoring the susceptibility of consumers to greenwashed packaging strategies in the skincare market.
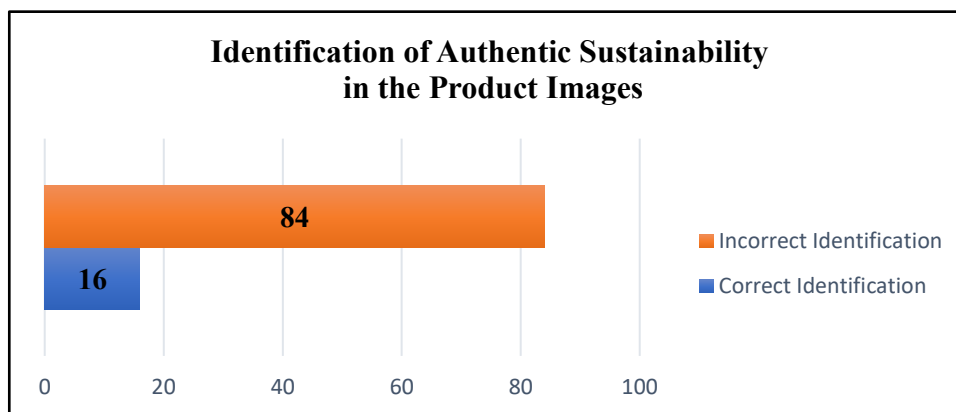

Figure 03: Percentage distribution of the respondents' identification of authentic sustainability in the product images

Elements Influencing Perceived Sustainability of Skincare Packaging

The analysis in **Table 04** shows that women's perceptions of sustainability were shaped primarily by product labelling, with 27.2 per cent of respondents reporting that terms such as "organic," "natural," or "eco-friendly" influenced their judgment. Packaging material also played a notable role (20 per cent), followed by colour palette (16 per cent), indicating that earthy tones and green hues are often interpreted as indicators of environmental responsibility. Minimalistic design affected perceptions for 12.8 per cent of respondents, while branding style influenced 8 per cent. Notably, 16 per cent correctly identified that neither product displayed authentic sustainability features. These findings demonstrate that consumers place substantial weight on surface-level linguistic and visual cues, often used in greenwashed marketing, rather than on verifiable sustainability information.
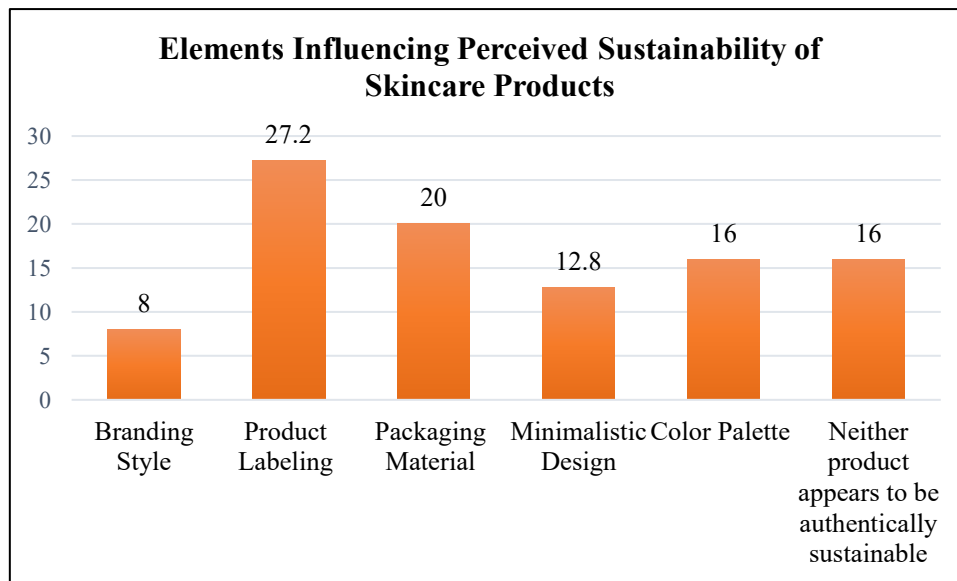

Figure 04: Percentage distribution of the respondents based on elements influencing perceived sustainability of skincare products

Perceived Authenticity of Sustainability Claims

The distribution of authenticity ratings **(Table 01)** shows considerable variation in how respondents evaluated the sustainability claims of the presented skincare advertisement. While only 4 per cent rated the claims as not at all authentic, a larger proportion assigned mid-level evaluations, with 28 per cent giving two stars and 32 per cent giving three stars. Notably, 36 per cent provided high authenticity ratings of four or five stars, despite the advertisement lacking critical verification elements such as certification logos, transparent ingredient information, or traceable environmental credentials. These results suggest that respondents relied primarily on the appealing sustainability-related statements provided—such as "99 per cent natural ingredients" and "no parabens or silicones"—rather than critically assessing whether the claim was supported by substantiated evidence. This pattern reflects a tendency to accept sustainability messaging at face value, further underlining the influence of persuasive language and visual cues over informed evaluation.

Table 01: Frequency and percentage distribution of authenticity of sustainability claims (n = 125)

No.	Rating (Stars)	*f*	*%*
1	⭐ 1 Star (Not at all authentic)	5	4
2	⭐⭐ 2 Stars	35	28

3	⭐⭐⭐ 3 Stars	40	32
4	⭐⭐⭐⭐ 4 Stars	20	16
5	⭐⭐⭐⭐⭐ 5 Stars	25	20
Total		125	100%

Knowledge of Certification Logos

The assessment of respondents, as shown in **Table 02**, ability to correctly recognise widely used sustainability certification logos revealed substantial gaps in awareness. Only 44 per cent correctly identified the meaning of the **EcoCert** label, while 56 per cent matched it incorrectly. Recognition was even lower for **USDA Organic**, with only 32 per cent providing correct matches compared to 68 per cent incorrect responses. Similarly, just 40 per cent accurately identified the **Leaping Bunny** cruelty-free logo, while 60 per cent selected incorrect meanings. These results indicate limited familiarity with credible certification symbols that play a critical role in authentic sustainability communication. The low accuracy levels suggest that many consumers may struggle to verify the legitimacy of sustainability claims even when credible certifications are present, increasing their vulnerability to greenwashed messaging.

Table 02: Accuracy of respondents in matching sustainability certification logos with their correct meanings (n = 125)

Labels	Correct Matches		Incorrect matches	
	f	*%*	*f*	*%*
EcoCert	55	44	70	56
USDA	40	32	85	68
Leaping bunny	50	40	75	60

Section III: Consumer experiences with sustainable skincare purchases

The findings **(Figure 05)** indicate that misleading sustainability claims are a common experience among skincare consumers. A substantial 64 per cent of respondents reported having felt misled by environmental or eco-friendly claims presented in online advertisements or social media promotions. An additional 32 per cent were uncertain whether they had been misled, reflecting confusion or difficulty in evaluating the authenticity of sustainability messages. Only 4 per cent stated that they had never encountered misleading claims. This high level of perceived deception highlights the prevalence of greenwashing in digital skincare marketing and underscores the challenges faced by consumers in distinguishing genuine claims from exaggerated or unverified ones. The large proportion of "not sure" responses further suggests a lack of confidence and limited awareness regarding credible sustainability indicators, reinforcing the need for more transparent brand communication and stronger consumer education.
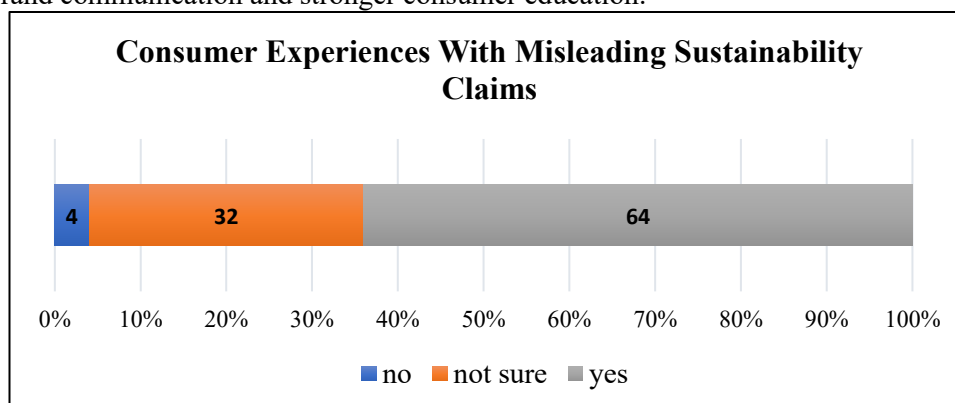

Figure 05: Percentage Distribution of the Respondents Based on Their Experience of Feeling Misled by Sustainability Claims

Influencer and Celebrity Endorsements

The findings show that influencer and celebrity endorsements exert a notable impact on women's decisions to purchase sustainable skincare products. While 32 per cent of respondents reported no influence, a majority demonstrated varying degrees of susceptibility to promotional content: 44 per cent indicated a moderate influence, and 24 per cent reported a strong influence from digital personalities endorsing eco-friendly products. These results reflect the growing role of influencers in shaping consumer perceptions of sustainability, as their personalised recommendations and curated content often enhance the appeal of "green" skincare brands. However, this influence also presents a risk, as endorsements lacking transparency or relying on unverified claims can contribute to the spread of greenwashed content. The findings underscore the dual role of influencers in consumer decision-making—acting as both facilitators of awareness and potential amplifiers of misleading sustainability messaging.

Sources Influencing Trust in Eco-Friendly Skincare Claims

The analysis **(Table 03)** of trust across different information sources shows clear variation in credibility. Peer recommendations emerged as the most trusted source, with 45 per cent of respondents rating them as "very likely" and 27 per cent as "extremely likely" to influence trust, yielding the highest mean score of 3.9. Social media influencers and product packaging also demonstrated relatively high credibility, both with mean scores of 3.7, supported by strong "very likely" responses of 42 per cent and 40 per cent, respectively. Customer reviews (mean = 3.6) and brand websites (mean = 3.5) were perceived as moderately reliable sources of eco-friendly claims.

In contrast, online advertisements (20 per cent "not at all likely"; mean = 2.7) and print news articles (22 per cent "not at all likely"; mean = 2.6) were viewed with greater scepticism. In-store promotions received the lowest credibility, with 25 per cent rating them as "not at all likely" to influence trust and a mean score of 2.4.

Collectively, these findings suggest that women place greater trust in interpersonal and user-driven sources, such as peers, influencers, and customer reviews, while exhibiting scepticism toward overtly promotional or traditional media channels when evaluating sustainability claims

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Table 03: Percentage distribution of trust in skincare products' eco-friendly claims based on different sources (n=125)						
Sr. No.	Source of Information	Not at all Likely (1)	Somewhat Likely (2)	Neutral (3)	Very Likely (4)	Extremely Likely (5)	Mean Score
1	Brand's official website	6%	18%	14%	40%	22%	**3.5**
2	Social media influencers	5%	12%	18%	42%	23%	**3.7**
3	E-commerce platforms	8%	20%	15%	38%	19%	**3.5**
4	Online advertisements	20%	32%	18%	18%	12%	**2.7**
5	Customer reviews	4%	15%	20%	38%	23%	**3.6**
6	Product packaging	5%	14%	15%	40%	26%	**3.7**
7	Peer recommendations (in-person)	3%	10%	15%	45%	27%	**3.9**
8	News articles (print)	22%	35%	18%	15%	10%	**2.6**
9	In-store promotions	25%	38%	15%	12%	10%	**2.4**

Testing of Hypotheses

For empirical validation of the study objectives, the following hypotheses were developed and analysed using appropriate statistical tests:

H_{01}: **There is no significant association between women's level of greenwashing awareness and their tendency to accept skincare sustainability claims at face value.**

An independent-samples t-test **(Table 04)** was conducted to compare authenticity ratings between women with high greenwashing awareness (n = 25) and those with low awareness (n = 100). The analysis revealed a statistically significant difference in mean authenticity ratings ($p < 0.001$), indicating that awareness level meaningfully influences how women interpret sustainability claims.

Women with low awareness assigned higher authenticity scores (Mean = 2.95), whereas women with high awareness rated the same claims significantly lower (Mean = 2.20). These findings demonstrate that women with a limited understanding of greenwashing are more likely to accept sustainability claims uncritically.

Table 04: t-test results showing comparison of Authenticity Ratings Between High and Low Greenwashing Awareness Groups

Variable	Category	N	Mean	*p-Value*	Level of Significance
Awareness Level	High Awareness	25	2.20	0.0003	0.05
	Low Awareness	100	2.95		

Accordingly, H_{01} is rejected, confirming a significant association between awareness level and acceptance of sustainability claims.

H_{02}: **There is a significant relationship between women's online information-seeking behaviour and their ability to identify greenwashing in skincare sustainability claims.**

A Pearson correlation analysis **(Table 05)** was conducted to examine the association between online information-seeking behaviour and greenwashing identification ability. Results showed a moderate negative correlation ($r = -0.3433$, $p < 0.05$), indicating that women who frequently seek reliable information online are less likely to trust superficial sustainability messages and more capable of detecting misleading claims.

Table 05: Correlation Between Online Information-Seeking Behaviour and Greenwashing Identification Ability				
Variables	**Mean**	**S.D.**	**Online Information-Seeking Score**	**Greenwashing Identification Ability**
Online Information-Seeking Score	2.57	0.80	1	-0.3433
Greenwashing Identification Ability	2.27	0.64	-0.3433	1

Note: SD = Standard Deviation, p < .05 (two-tailed)

Since a statistically significant relationship was observed, H02 is rejected, establishing that online information-seeking behaviour plays a notable role in enhancing women's ability to identify greenwashing.

RESULTS

The results of the study provide a comprehensive understanding of women's awareness of greenwashing, their interpretation of sustainability cues, and the influence of digital engagement on their ability to evaluate skincare-related environmental claims. Findings revealed low conceptual awareness of greenwashing, with only 28 per cent correctly identifying its meaning, and a high susceptibility to visual packaging cues, as 84 per cent perceived at least one non-sustainable product as sustainable. Authenticity ratings also indicated reliance on persuasive claims rather than verifiable information, with more than one-third of respondents assigning high sustainability ratings to advertisements lacking certification or transparency. Trust patterns showed that peer recommendations, influencers, and product packaging were perceived as the most credible sources of eco-friendly information.

Inferential analyses further strengthened these observations. Women with low greenwashing awareness were significantly more likely to accept sustainability claims at face value compared to those with high awareness ($p < 0.001$). Additionally, online information-seeking behaviour demonstrated a moderate negative relationship with susceptibility to greenwashing ($r = -0.3433$, $p < 0.05$), indicating that digitally informed consumers are better equipped to identify misleading sustainability claims. Collectively, the results highlight the pivotal role of awareness and digital literacy in shaping women's interpretation of sustainability communication in skincare marketing.

CONCLUSION

This study examined how women interpret sustainability claims in skincare products within an increasingly digitalised marketing environment. With greenwashing becoming more prevalent across online platforms, the research explored women's awareness of misleading environmental claims, the influence of digital cues on their perceptions, and the role of online information-seeking behaviour in identifying greenwashing. By analysing responses from 125 digitally active women aged 18–36 years in Vadodara, the study provides valuable insights into the cognitive and behavioural processes that shape consumer evaluation of sustainability messaging.

The findings revealed significant gaps in greenwashing awareness, with 72 per cent of respondents unable to correctly define the term. This limited understanding directly influenced their evaluation of sustainability claims, as women with low awareness were more likely to rate misleading claims as authentic. Visual design elements such as colour palette, labelling, and minimalistic aesthetics were found to strongly influence perceptions of sustainability, even in the absence of verifiable environmental information. The study also identified low familiarity with core sustainability certification logos, which further reduces consumers' ability to differentiate genuinely eco-friendly products from greenwashed alternatives.

Digital marketing emerged as a powerful factor shaping consumer perceptions. Influencers, packaging visuals, and sustainability-themed online promotions had a notable impact on purchase decisions, reflecting the persuasive potential of personalised and visually appealing digital content. At the same time, ,64 per cent of the respondents reported having felt misled by eco-friendly claims online, highlighting the prevalence of deceptive practices in skincare marketing. The correlation analysis showed that women who actively seek information online are significantly better at identifying greenwashing, suggesting that digital literacy and verification behaviours can protect consumers from misleading claims.

Overall, the study demonstrates that while women are increasingly exposed to sustainability narratives in skincare marketing, many remain vulnerable to greenwashing due to limited awareness, reliance on surface-level cues, and insufficient familiarity with credible eco-certifications. The results underscore the need for more transparent, evidence-based communication from skincare brands and greater emphasis on consumer education to strengthen critical evaluation skills. Strengthening these areas is essential for fostering responsible consumption, enhancing consumer trust, and ensuring that sustainability claims contribute meaningfully to ethical and environmental progress rather than becoming tools for deceptive marketing.

As a practical outcome of the study, a digital brochure on greenwashing was provided to all respondents after data analysis. This brochure aimed to enhance their understanding of misleading sustainability strategies, explain key certification logos, and encourage more informed and responsible purchasing decisions.

RECOMMENDATIONS AND IMPLICATIONS

The study highlights the need for stronger consumer awareness, responsible brand communication, and clearer regulatory oversight in the sustainability-driven skincare market. Consumers should enhance their understanding of credible certification logos, actively verify sustainability claims using reliable digital sources, and avoid depending solely on packaging aesthetics or influencer endorsements. For skincare brands, the findings underscore the importance of transparent communication through third-party certifications, ingredient traceability, and honest sustainability disclosures, while avoiding vague or symbolic cues that may mislead buyers. Policymakers can draw on these results to strengthen guidelines on terms such as "natural," "green," and "eco-friendly," mandate proper use of certification logos, and implement penalties for misleading claims. Educators and awareness initiatives should focus on improving consumer literacy by teaching young women how to critically evaluate online skincare information. The study offers theoretical value by integrating digital behaviour, awareness of greenwashing, and perception of sustainability cues into a comprehensive framework, while practically guiding brands, influencers, and regulators to foster ethical communication and informed decision-making among women.

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