

A Study and Analysis of the Impact of Greenwashing Activities on Customer Behaviour with Respect to the Jewellery Sector in the Kingdom of Saudi Arabia



Mr. Firas Wehbe^{1*}, Dr. Vishal Wagh²

^{1*}Research scholar at Exeed College Dubai (UAE). firmas.wehbe@hotmail.com

²Assistant Professor at S.B.Patil Institute of Management Pune vwagh739@gmail.com

Abstract

The jewellery sector in Saudi Arabia increasingly uses sustainability and green claims to communicate ethical conduct, responsible sourcing, and environmental responsibility. However, when such claims are vague, exaggerated, selective, or unsupported by evidence, consumers may interpret them as greenwashing, which can weaken trust and influence purchase decisions. This study examines the impact of perceived greenwashing on customer behaviour in the Saudi jewellery sector, focusing on the mediating roles of brand trust and perceived brand authenticity. The study is grounded in signalling and attribution perspectives, which explain how consumers interpret sustainability claims as indicators of brand credibility, sincerity, and responsibility. A quantitative, cross-sectional survey design is used, focusing on Saudi consumers aged 18 years and above who have recently purchased jewellery or considered purchasing jewellery after exposure to sustainability-related claims. The model examines the relationships among perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention. The results indicate that perceived greenwashing negatively affects both brand trust and perceived brand authenticity, while trust and authenticity positively influence purchase intention. The findings further suggest that trust and authenticity mediate the relationship between perceived greenwashing and purchase intention. The study contributes to sustainability communication and luxury consumption research by showing how unclear or unsupported green claims can damage consumer confidence in a culturally significant and high-involvement market. It also provides practical implications for jewellery brands, emphasizing the need for specific, transparent, and evidence-based sustainability communication.

Keywords: Greenwashing; Sustainability Communication; Brand Trust; Brand Authenticity; Purchase Intention

1. Introduction

In many sectors of business, sustainability has emerged as a key consideration for consumer purchasing decisions, as consumers have become more conscious of brands' ethical behaviour, their environmental responsibility, and their transparency in conducting their businesses (Brandão & Cupertino de Miranda, 2022; Zhao et al., 2023). This is especially true in the jewellery industry, where the quality of the goods, their moral and emotional significance, and their value are interrelated. More and more jewellery brands are employing sustainability-related terms as a way of conveying responsible sourcing, ethical manufacturing, environmental stewardship and social responsibility. If the claims are obvious, believable, and substantiated, they can enhance brand value, consumer trust and market legitimacy. If they are not specific, ambiguous, or overstated or lack good substantiation, however, they can be interpreted as being greenwashing, rather than helping to build consumer confidence (Lyon & Montgomery, 2015; Ruiz-Blanco et al., 2022). The Kingdom of Saudi Arabia has a significant cultural, social, emotional and economic connection with jewellery. Jewellery has a strong connection with the wedding, family legacy, giving and receiving, religious functions and maintaining wealth.

Consequently, choices about jewellery are often thoughtful, meaningful and emotional. In this market, consumers are highly brand driven, trust in brands, certification, and the transparency of product information is key, particularly where product characteristics like source, material quality, ethical manufacturing and sustainability are not easily verified at the point of sale. From the Saudi consumer perspective, the purchase intention of green products is affected by the attitudes, awareness, and perceived value of the consumers, thus sustainability-related communication is becoming more and more relevant for purchase decisions (Almohammadi & Abdulghaffar, 2022). The use of sustainability terms in jewellery marketing and sales messaging has become more prevalent and is also a growing benchmark for brand credibility. Consumers aren't just asking about value, certification or craftsmanship anymore, they're also asking about the sincerity and authenticity of a brand's sustainability claims, and whether they match its actual practices. This is particularly evident in younger consumers who are less likely to believe that brands are actually going to deliver on their ethical and environmental promises when it comes to promotion. For Generation Z consumers, sustainable purchasing behaviour and increased social identity and

behavioural intentions in consumption decisions are more linked in the Saudi context (Elgammal et al., 2024).

In this regard, green washing can be a serious issue as it can aid in detracting jewellery brand customer relations. Where consumers feel a brand is only using sustainability claims as a marketing tactic, without the back-up, they can start to question the brand's authenticity, reliability and honesty. Such doubts can directly affect purchase intention in a high involving sector as jewellery where purchasing is done with a financial risk, emotional attachment and symbolic value. Previous studies indicate that greenwashing can affect behavioural intention through mediation processes and consumer perceptions, which necessitates a study on the consumers' response to ambiguous and deceptive sustainability communication (Gil-Cordero et al., 2021).

This research paper aims to fill the gap in the research regarding greenwashing in the jewellery industry in Saudi Arabia. It explores the influence of perceived greenwashing on customer behavior, especially on purchase intention, via two major relational mechanisms, namely, brand trust and perceived brand authenticity. The study suggests that if sustainability claims are deemed deceptive or lacking in content, the consumer will be inclined to believe that the brand is looking to impress the consumer for the wrong reasons. This erodes trust and authenticity perceptions and consequently lowers their willingness to buy from the brand. This is supported by the study results that indicate that sustainable luxury consumption and intentions to buy are influenced by the perceived value and credibility, and the evaluation of the brand's responsibility by the consumer (Brandão & Cupertino de Miranda, 2022; Zhao et al., 2023).

The Saudi regulatory and disclosure environment is also taken into account as jewellery consumers have come to expect certain information regarding product attributes including metal type, purity, weight, price, gemstone characteristics and certification. While sustainability claims are not subject to a single separate greenwashing law, there are many consumer expectations in the areas of consumer protection, anti-fraud, e-commerce and jewellery disclosure expectations that impact consumer perceptions of brand communication. In this context jewellery brands are expected to make claims that are true, clear and substantiated. This is crucial as company-level greenwashing can be related to how companies communicate sustainability claims and to the credibility, consistency, and substantiation of these claims with practices (Ruiz-Blanco et al., 2022).

Hence, this study makes a contribution to the knowledge on sustainability communication, greenwashing, and consumer behavior in the

culturally relevant luxury market. The study primarily emphasizes the Saudi jewellery industry, and it explains the negative impact of perceived greenwashing on brand trust, perceived brand authenticity, and purchase intention. The results will be beneficial for jewellers, marketers, regulators and future researchers in the high-value markets concerning the ethical communication and consumer trust.

2. Literature Review

The literature review is the foundation of the study and provides the theoretical and contextual background. It talks about the definition of greenwashing, the definition of sustainability communication, the importance of brand trust and brand perceived authenticity in their influence on purchase intention, and introduces the Saudi jewellery market as the research context. The study focuses on these areas as they explore the consumer reaction to an advertiser's use of sustainability claims which could be interpreted as being ambiguous, hyperbolic, or unconvincing.

2.1 Greenwashing and Sustainability Communication

Greenwashing involves the use of environmental, ethical or sustainability claims that would lead one to believe that a business is acting responsibly when in fact it is not. These assertions can be general, inflated, biased, unverifiable and under-substantiated. In marketing, greenwashing is seen as a credibility issue as companies generally have control over the sustainability message, whereas consumers lack the power to check if it is in line with the company's actual practices (de Freitas Netto et al., 2020; Parguel et al., 2015).

Brands typically leverage sustainability communication to communicate ethical practices, responsible sourcing, environment and social responsibility. If such claims are made transparent, concrete, and substantiated with evidence, then they can boost consumer trust and affect their brand perception. But if the claims are general or unsubstantiated, they can raise questions about the products. Consumers might wonder if the brand is truly serious about being sustainable or if they're putting this green buzzword into use primarily as a marketing tool (Schmuck et al., 2018; Zhang et al., 2018).

The risk of greenwashing is especially pertinent in the jewellery industry as product supply chains are long and often hard to trace for consumers. Sustainability can be communicated by jewellery brands with phrases like "eco-friendly", "responsibly sourced", "ethical diamonds", "recycled metals", "lab-grown diamonds" or "responsible mining". Aside from potentially having a positive perception, these terms can mislead consumers and damage brand

credibility if backed up with no evidence, certification or traceability (de Freitas Netto et al., 2020; Nguyen et al., 2019).

Greenwashing perceptions are not just the result of deliberate deception. Also, they can be created by ambivalence. If consumers are not able to validate the sustainability claims, they can look to other indicators, including brand reputation and past experience, product certification and clarity of disclosure. When the sustainability message is not consistent, not selected for or hard for consumers to substantiate, they might perceive it as "greenwashing" (Parguel et al., 2015; Schmuck et al., 2018).

Thus, communicating sustainability in jewellery needs to be specific, transparent and evidence-based. General statements can have negative implications on brand equity. Jewellery companies face a risk of reputation loss when communicating about sustainability without providing any supporting evidence, because they will be competing on the symbolic meaning, trust and emotional value of their products (Zhang et al., 2018; Nguyen et al., 2019).

2.2 Trust, Brand Authenticity, and Purchase Intention

One of the most important factors in customer behaviour is brand trust particularly with high involvement purchases, which have financial, emotional and product risk. The items bought as jewellery are expensive, intended to be worn for a long period of time, are expected to be hard-wearing, come with after-sales service and include ethical guarantees. Consumers might not always be able to check the product claims and sustainability claims directly, so they must trust to decrease their uncertainties (Guerreiro & Pacheco, 2021; Amin & Tarun, 2021).

Trust is essential in the jewellery industry because it helps to ensure that customers can rely on the brand's honesty, reliability, and ability to deliver on its promises. When customers are loyal to a brand, they are more likely to believe the brand's claims, feel good about the purchase and consider the brand for future purchases. But, the customer can lose faith in a brand if they think it is communicating misleading information about sustainability. The environmental or ethical claim can cause doubts regarding the integrity of the brand, as well as the overall integrity of the brand itself (De Sio et al., 2022; Guerreiro & Pacheco, 2021).

Perceived brand authenticity is defined as how consumers perceive a brand to be authentic, sincere, consistent and in sync with the brand's values. When it comes to jewellery and luxury goods, consumers are not just buying a product, but an experience, and that's why authenticity is a major consideration. They also buy the brand story,

craftsmanship, heritage, symbolic meaning and emotional value of the product (Morhart et al., 2015; Portal et al., 2019).

If a jewellery brand is seen as genuine, customers will also feel that the communication the brand is using is genuinely sincere and value-focused. It could be seen as a sign of a genuine commitment to responsible business practice. However, if a brand's sustainability communication lacks clarity, selectivity, and/or is not substantiated, consumers may view the brand as less authentic. The brand might appear self-serving or deceptive in using sustainability claims for strategic and/or manipulative reasons (Oh et al., 2019; Arya et al., 2019).

Purchase intention is when consumers consider, select, buy or recommend a brand. When it comes to jewellery, the factors influencing purchase intent are product quality, price, design, reputation, trust, authenticity and emotional value. It is particularly relevant to trust and authenticity as jewellery is often bought due to personal, cultural and symbolic significance of the purchase (Wang et al., 2019; Amin & Tarun, 2021).

Greenwashing can lose out on the intention to purchase because it undermines trust and authenticity. When consumers doubt a brand's sustainability commitments, they might be less inclined to make a purchase from that brand. What's more, when they feel the brand is not somehow real, or not pointing to its values, its willingness to consider or recommend the brand may decrease. As a result, brand trust and perceived brand authenticity are two key relational mechanisms that can explain the relationship between perceived greenwashing and consumer purchase behavior (Zhang et al., 2018; Nguyen et al., 2019; Portal et al., 2019).

2.3 The Saudi Jewellery Market as Context

The jewellery industry in Saudi Arabia offers a good context to examine greenwashing and customer behavior since the consumption of jewellery in this country is closely linked to its cultural, social, emotional and economic values. Jewellery is often worn when it comes to wedding, family events, gifts, religious events, keeping traditions and preserving wealth. These meanings have an impact on the nature of the jewellery purchase, which can be regarded as both very complex and significant to the individual. The symbolic value, social meaning, and perceived exclusivity may influence customers' assessment in luxury markets, particularly in the field of jewellery consumption (Athwal et al., 2019; Kapferer & Michaut, 2015).

In Saudi Arabia, consumers not only consider jewellery as a decorative product but also as a symbol of their family identity, social status, emotional attachment, and long term value. The

buying of gold or diamonds is usually associated with unique events and passing on from one generation to the next. This makes consumers more mindful when assessing the quality of jewellery brands and may value the brand's reputation, craftsmanship, certification and disclosure of product characteristics. These expectations align with previous luxury consumption studies that have found that consumers' perception of luxury products is related to symbolic, emotional, and value-based meanings (Kapferer & Michaut, 2015; Athwal et al., 2019).

Digitalization has also been a trend in the Saudi jewellery market. Jewellery brands are reached by consumers via physical stores, ecommerce websites, social media ads, social media outreach and brand content online. This has put sustainability communication on the agenda and on the radar of consumers' decision making. Meanwhile, digital communication can also be a source of possible vague or unsupported claims as consumers may be exposed to sustainability messaging before they are able to verify the product in person (Arya et al., 2019; Oh et al., 2019).

The Saudi jewellery market, therefore, adopts a local interpretation of what is considered sustainable based on expectations of trust, reputation, family value, and product transparency. The shopping decision for jewellery items is an emotional and financial decision and consumers may have a low tolerance for perceived deception. Sustainability statements that are ambiguous, unquantifiable or contradict actual brand actions can lead to a loss of brand reputation and purchase intent (Guerreiro & Pacheco, 2021; De Sio et al., 2022).

It is also relevant to keep in mind the Saudi context as consumers are used to getting specific information regarding certain jewellery attributes like its metal type, its weight, the purity of the metal, the nature of the gemstone, the certification etc. Such disclosure expectations can impact on consumers' assessment of sustainability claims. Consumers could interpret the sustainability message as being murky if a brand is accurate on quality information, but is less clear on the sustainability information. Varying consistency can undermine credibility and drive down consumer acceptance in luxury and sustainability settings, as was the case with Athwal et al., (2019) and Kapferer & Michaut (2015).

Therefore, the Saudi jewellery industry is an appropriate industry for analysing the impact of perceived greenwashing. Sustainability communication is very relevant given the importance of jewellery in the culture, the involvement in the purchasing decision, the increasing importance of digital marketing, and the desire for sustainable products with clear information. Perceived greenwashing in this context

can lead to a loss of trust in the brand, a decrease in perceived authenticity, and a negative effects on the purchase intention (Wang et al., 2019; Zhang et al., 2018; Nguyen et al., 2019).

3. Conceptual Framework

In this study, sustainability communication in the Saudi jewellery sector is considered to be ethical and moral signalling that take place in a market with information asymmetry, high involvement and relational risk. The framework combines the concepts of signalling and attribution theory to explain the role of perceived greenwashing in shaping consumer responses by means of consumer trust in the brand and perceived brand authenticity. This study does not only consider greenwashing a negative perception of EC, as it is a failure of ethical signalling that leads to consumer interpretation, diminishes relational evaluation and in the end affects the purchase intention (Leonidou & Skarmeas, 2017; Siano et al., 2017).

3.1 Sustainability Communication as a Moral Signal

Jewellery consumers are generally expected to assess the product's characteristics that they can see and document, including its type of metal, weight, metal purity, cost and the gemstone certification. Consumer validation of sustainability attributes – such as responsible sourcing, environmental impact, labour practices and ethical production – are more challenging. Therefore, sustainability communication is an important signal in which brands try to communicate the values and responsible business behaviour.

Sustainability communication is not just a selling spiel in this context. It's a moral signal in which the brand communicates its moral attitude, its social responsibility and its attitude to responsible practices. This signal relies on the credibility of the claim, which can be evaluated based on its specificity, verifiability, and consistency with the brand's behavior. Consumer confidence in the brand can be enhanced with sustainability claims that are evident and substantiated. But if these claims are too general, hyperbole, selective or unsubstantiated, consumers can take them as meaningless symbols instead of real facts (Hazel & Kang, 2018; Siano et al., 2017).

This is especially crucial for the jewellery industry, where consumers are well aware and expect the integrity and clarity of product quality, purity, origin and certification. Sometimes the information about the attributes a brand provides is exact, but when communicating about sustainability, they use unclear language, which can lead consumers to think that the brand is not consistent with the information it provides. This can impact the

credibility of the sustainability message and raise suspicion about what the brand is attempting to do. Thus, when sustainability communication is based on evidence and in line with what a brand is doing, it can be effective in building the credibility of the brand. But if it appears to consumers as vague or unverifiable, the signal loses its “credibility” and can actually cause doubts. This process does not only impact the consumers' reactions to a particular claim, but it also influences the consumers' overall assessment of the brand's motives, honesty, and integrity (Leonidou & Skarmas, 2017; Hazel & Kang, 2018).

3.2 Moral Inference and Attribution Processes

Consumers do not make their decision about sustainability just on the basis of the words in the message. They also explain or make inferences about what might have been the reason behind those claims. Consumers might question whether the assertions made by a jewellery brand in its sustainability, ethical, environmentally responsible or responsible sourcing communications are sincere and based on real action, or whether they are primarily geared towards boosting the brand's image.

In the event that the sustainability claims align with the brand's values, history, communication and tangible business practices, consumers will be more likely to read the claims as sincere. Then sustainability communication can help in making positive judgement about the brand and enhance the trust in the brand's action in the right direction. If claims are ambiguous, limited, exaggerated, or without substantiation, however, consumers may believe that the claims are serving a self-serving, reputation management, or commercial purpose (Alhouthi et al., 2016; Siano et al., 2017).

Perceived greenwashing is defined as an attribution-based judgment in this study. It means that the consumer decides that the sustainability communication of the brand is not sincere, transparent and backed by real action. This perception can occur due to either direct deceptive practices or because the message or behavior of the brand is unclear, unproven or contradictory (Leonidou & Skarmas, 2017).

When consumers believe that this can be used as a marketing ploy, the impact is not just on the environmental or ethical claim, but on the whole statement. The consumer's attention starts to grow towards the brand itself. This suggests that consumers may evaluate the trustworthiness, authenticity, and appropriateness of the brand based on their greenwashing perceptions, which can affect their likelihood to consider purchasing it (Thao et al., 2025).

3.3 Effects on Brand Trust and Brand Authenticity

Brand trust is defined as when the consumer believes that the brand is reliable, honest and can keep its promises. In the case of jewellery, trust is paramount as customers are taking a risk on the purchase, possibly putting emotional value on the piece, adding symbolic meaning and investing into the product for long-term use. It is not always possible for consumers to check claims made by the product themselves, or by the brand regarding the environmental benefits, so it is reliant on the credibility of the brand.

When people perceive that the brand is “greenwashing,” it leads to a loss of trust in the brand due to the fact that they are unsure of the brand's honesty and reliability. Consumers are skeptical of a brand that demonstrates sustainability only to boost sales, and may doubt whether the brand is sustainable or not. When it comes to the brand, the perception of greenwashing can lead to a loss of trust in the brand's integrity (Leonidou & Skarmas, 2017; Thao et al., 2025).

Perceived brand authenticity is defined as how consumers think a brand is authentic, sincere, consistent and matches its values. In the jewellery industry, authenticity is crucial since consumers are not buying the jewellery, they are acquiring something more. They also buy the Symbolic Value, the emotional value, the craftsmanship, the heritage and the story of the brand. When used in the brand story, sustainability messages carry modern ethical values and a sense of responsible business, enhancing the brand image.

If the brand does not behave consistently in sustainability communication, the consumers might feel that the brand is not authentic. If the brand is promoting ethical values but isn't backing them up with concrete proof, it might appear as fake or a bit manipulative. This will make consumers less confident about the authenticity and value of the brand (Alhouthi et al., 2016; Thao et al., 2025).

As a result, there is likely to be a decline in brand trust and a decline in perceived brand authenticity as a result of perceived greenwashing. In consumer trust, the customers start to distrust the brand when it does not fulfill the promises it has made, whereas in consumers' authenticity, they question the customers if the brand's values are sincere and consistent with its behaviour (Alhouthi et al., 2016; Leonidou & Skarmas, 2017).

3.4 Influence on Purchase Intention

Purchase intention is a measure of consumers' potential to consider, prefer or buy a brand in the near and distant future. For high-involvement products like jewellery, consumers' purchase decision is influenced not only by product quality and price, but also by emotional connection,

symbolism, brand reputation, trust and perceived authenticity.

As consumers gain trust in a brand, they are more likely to take it on its word, lower their perceived risk and move onto consideration to purchase. Likewise, if a consumer feels a brand is authentic, they will feel more confident that the brand's claims are genuine and that there is meaning behind these claims. Trust and authenticity are then considered important relational mechanisms that link the perception of greenwashing with the buying intention (Alhouti et al., 2016; Thao et al., 2025).

When they think the brand is doing greenwashing, consumers might not be willing to buy from that brand due to low trust and authenticity. They might put off buying the product, seek out other brands, discontinue purchasing the brand or refuse to endorse it with other people. Scepticism over environmental claims is only part of the problem of greenwashing. It can turn into a more general worry regarding the general reputation of the brand (Leonidou & Skarmeas, 2017; Thao et al., 2025).

The relationship is especially critical to the jewellery business in Saudi, as jewellery buys could have cultural, emotional, and monetary importance. Consumers might not be as forgiving when they feel they have been deceived in a category that's linked to family events, marriage, gift givings and long-term value. This means that if there is no sustainable content or it is unclear, relevant purchasing decisions can directly be negatively affected.

3.4 Market Norms and the Saudi Context

It is important to consider this framework in the context of the Saudi jewellery market, due to the strong link between consumption of jewellery and its association with weddings, family events, religious activities, gift-giving, wealth preservation, and passing it down from one generation to the next. The characteristics of jewellery purchases contribute to involvement and emotion. This will lead consumers to expect clarity, honesty and reliability from jewellery brands.

The disclosure regulations on the purity of the metal, its weight, gemstone information, pricing, and certification also influence the Saudi jewellery market. Consumers are used to being provided with certain information on key characteristics of a product. The expectations set up in this marketplace can negatively impact if a claim is not specific enough or substantiated.

While not necessarily subject to an environmental marketing regulation, sustainability claims set expectations for factual accuracy and transparency within the disclosure environment. For this reason, those who know the product(s) in detail should also receive sustainability communication in a similar manner. When a brand states it is ethical, responsible or environmentally friendly, but does

not back it up with manifest proof, then consumers may consider this to be contrary to the transparency they expect to see in jewellery transactions (Hazel & Kang, 2018; Siano et al., 2017).

The proposed framework is supported by this contextual factor. Sustainability communication that is not clear may not seem to be aligned with the market norm in a market where product claims are expected to be specific and verifiable. Therefore, in the absence of supporting details, consumers can be more sensitive to the possibility of the environmental or ethical claims being considered as greenwashing (Leonidou & Skarmeas, 2017; Siano et al., 2017).

3.5 Transition to Empirical Operationalization

This study is guided by a conceptual framework. This study has a conceptual framework that guides the empirical testing. Perceived greenwashing is defined as the customer's perception that a jewellery brand's sustainability claims are ambiguous, overstated, deceptive, selective or underwhelming. Brand trust is based on consumer's beliefs about the brand's honesty, reliability, and integrity. Consumer perceptions of brand authenticity are based on perceptions of sincerity, consistency, and congruity between brand values and brand actions. The intention to buy is assessed based on the probability of considering, buying or recommending the brand. The empirical model investigates the possible mediation between perceived greenwashing and purchase intention by brand trust and perceived brand authenticity. This is in line with the theoretical explanation that consumers do not only reject a sustainability claim as a reaction to greenwashing. Rather, they engage in more general relational inferences of whether the brand is reliable and genuine (Alhouti et al., 2016; Thao et al., 2025). This framework establishes sustainability communication as an ethical signal, providing an explanation of the effect of perceptions of greenwashing on consumer behaviour in the Saudi jewellery industry. The framework suggests that if consumers believe the claims to be credible, these claims can contribute to the development of trust, authenticity and purchase intention. But if these claims are seen as 'greenwashing' they could affect relational confidence and diminish consumers' willingness to buy from the brand (Hazel & Kang, 2018; Leonidou & Skarmeas, 2017; Thao et al., 2025).

4 Research Methodology

4.1 Research Design and Sampling

The study is conducted by applying quantitative, cross-sectional survey designed to test the relationships between perceived greenwashing, perceived brand authenticity, brand trust and purchase intention. This includes Saudi residents

age 18 and over who bought jewellery within the last year, or who at least thought about buying jewellery after being exposed to sustainability claims. The sampling technique employed to reach the respondents is the Non-probability purposive sampling technique, which has been used to select people who have a relevant jewellery purchase experience and who have been exposed to jewellery products sustainability communication. The responses are screened and data quality checks are conducted, and 312 valid responses remain for analysis. This sample size is appropriate for testing the proposed model with structural equation modelling analysis.\

4.2 Measures and Instrument Development

Data is collected by using a structured questionnaire with four constructs: perceived greenwashing, brand trust, perceived brand authenticity and purchase intention. Constructs are measured with multi-item scales on a seven point agreement scale. Perceived greenwashing is when consumers believe sustainability claims are too generic, inflated, misleading, selective or unsubstantiated. The BDI assesses beliefs of honesty, reliability and integrity. Perceived brand authenticity reflects sincerity, consistency and consistency of the brand and its actions with its values. Purchase intention variables refer to the probability of considering, buying or recommending jewellery brand. The questionnaire is modified for the Saudi jewellery setting and features demographic factors like Gender, Age, Education, Income, Frequency of purchase, Preferred purchasing channel, and previous customers' familiarity with the brands.

4.3 Data Collection Procedure

The questionnaire is given electronically to the Saudi jewellery consumers. To insure that respondents do have the characteristics of the study (i.e., residency, age, recent jewelry purchase, consideration of purchase), screening questions are used. The survey is drafted in both English and Arabic to make it easier to access and clearer. Anonymity is guaranteed, participation is voluntary,

and items are carefully worded, which will help minimize response bias. Responses are automatically checked for completeness, attention checks, minimum completion time and straight-line pattern. Any responses that are not valid are excluded from final analysis.

4.4 Data Analysis Procedure

Data are analyzed in a series of steps. For the first step, the data in the respondents are analyzed in terms of frequencies and percentages. Secondly, all key constructs are summarized descriptively. Third, a measurement model is verified by Cronbach's alpha, composite reliability, AVS and heterotrait-monotrait ratio. Fourthly, to explore the direct effects between perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention, the structural model is tested. Lastly, mediation analysis was performed to test the mediation mechanisms between perceived greenwashing and purchase intention through brand trust and perceived brand authenticity. The significance of indirect effects is tested using the bootstrapping.

5. Results

5.1 Respondent Profile

In total 312 valid responses were taken for analysis. The respondents were Saudi consumers aged 18 years or older, who have either bought jewellery in the last year or actively considered buying jewellery after seeing claims around sustainability. This type of respondent profile was appropriate for the study because all the respondents were exposed to the decisions made in buying jewellery and to the communication of brands in the Saudi jewellery sector.

Norms were obtained from the demographic profile such as gender, age group, level of education, monthly income level, frequency of jewellery purchase and the preferred purchase channel. These demographic information helped to give a solid context to the consumer response to perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention.

Table 1. Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage
Gender	Male	138	44.2%
	Female	174	55.8%
Age Group	18–25 years	72	23.1%
	26–35 years	126	40.4%
	36–45 years	78	25.0%
	Above 45 years	36	11.5%
Education Level	Diploma / Undergraduate	168	53.8%
	Postgraduate	112	35.9%
	Other professional qualification	32	10.3%
Monthly Income Level	Low income	64	20.5%
	Middle income	158	50.6%

	High income	90	28.9%
Jewellery Purchase Frequency	Once a year	96	30.8%
	Two to three times a year	142	45.5%
	More than three times a year	74	23.7%
Preferred Purchase Channel	Online	86	27.6%
	Offline / physical store	142	45.5%
	Both online and offline	84	26.9%
Total		312	100.0%

Table 1 indicates that the female respondents had 55.8% and the male respondents had 44.2%. The age group 26-35 years old had the highest percentage of respondents (40.4%). The majority of respondents were those with diploma or undergraduate education, with the postgraduate respondents following. Most were in the middle income class. With regard to jewellery buying habits, majority of respondents shop for jewellery two to three times in a year and offline/jewellery shops are the preferred shopping channel. The Saudi jewellery market, however, also reveals the importance of online and mixed-channel consumers, indicating the

increasing influence of online platforms and communication on the market.

5.2 Descriptive Statistics of Main Constructs

All four main constructs of the study (perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention) were used to perform descriptive statistics. The mean and standard deviation values give a preliminary insight into consumers' perception of sustainability-related claims and brand credibility in the Saudi jewellery industry.

Table 2. Descriptive Statistics of Main Constructs

Construct	Mean	Standard Deviation
Perceived Greenwashing	3.82	0.91
Brand Trust	4.96	0.84
Perceived Brand Authenticity	4.78	0.88
Purchase Intention	4.65	0.93

The perceived level of greenwashing is moderate (mean score of 3.82) and consumers are concerned about ambiguous or overly-ambitious or unsubstantiated sustainability claims. Perceived brand authenticity had the highest mean score of 4.78, followed by purchase intention with a mean score of 4.65 and then brand trust with a mean score of 4.96. The scores reflect that the consumers are still considering the reliability, sincerity and consistency as criteria to choose jewellery brands.

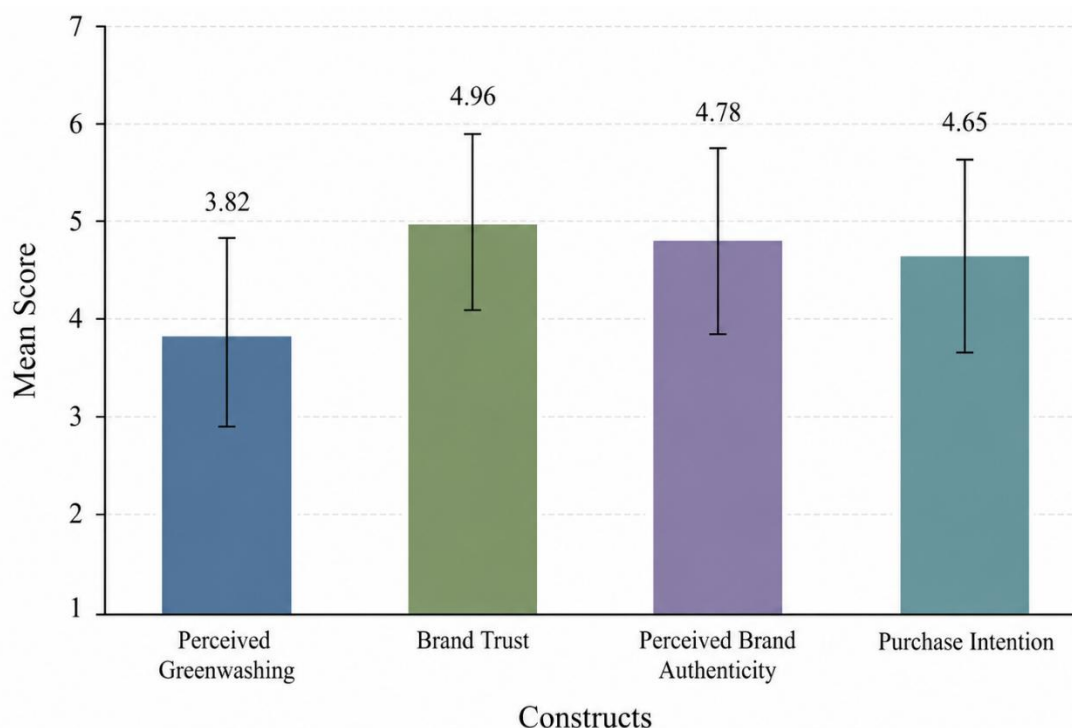


Figure 1. Descriptive Statistics of Main Constructs

The results of the main constructs in terms of mean scores are shown in Figure 1. The mean values of brand trust, perceived brand authenticity, and purchase intention are the highest means in order. Perceived greenwashing has the lowest mean value among the constructs, meaning that consumers are still aware of the less clear or less supported sustainability claims but maybe them. The figure validates the opinion that communication about

sustainability can impact consumer perceptions of jewellery brands.

5.3 Measurement Model Results

Prior to testing the structural relationships the measurement model was evaluated to ensure the reliability and validity of the constructs. Cronbach's alpha and composite reliability were employed to assess internal consistency reliability. Average variance extracted was used to evaluate convergent validity.

Table 3. Reliability and Convergent Validity Results

Construct	Cronbach's Alpha	Composite Reliability	AVE
Perceived Greenwashing	0.86	0.90	0.64
Brand Trust	0.88	0.91	0.68
Perceived Brand Authenticity	0.87	0.90	0.66
Purchase Intention	0.89	0.92	0.70

The Cronbach's alpha values were between 0.86 and 0.89 and the composite reliability values were between 0.90 and 0.92 (see Table 3). The internal consistency of the items the measured each construct was good, as revealed by these results. AVE values were between 0.64 and 0.70, which

showed convergent validity as the variance of all the items of each construct was high enough to explain the variance of that construct. Heterotrait-monotrait ratio was used for assessing discriminant validity. The outcomes are given in Table 4.

Table 4. HTMT Discriminant Validity

Construct Relationship	HTMT Value
Perceived Greenwashing and Brand Trust	0.61
Perceived Greenwashing and Perceived Brand Authenticity	0.64
Perceived Greenwashing and Purchase Intention	0.58
Brand Trust and Perceived Brand Authenticity	0.72
Brand Trust and Purchase Intention	0.69

Perceived Brand Authenticity and Purchase Intention	0.71
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All the HTMT values were below the recommended level which showed that the constructs were sufficiently different in each other. This validates that perceived greenwashing, brand trust, perceived brand authenticity and purchase intention are conceptually distinct constructs that are related. So, the measurement model was judged to be appropriate for the study of the hypothesized structural relationships.

5.4 Structural Model Results

The relationship among the perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention was then analyzed using the structural model in order to test it. The results from these are summarized in Table 5 and graphically summarized in Figure 2.

Table 5. Structural Model Results

Hypothesis	Relationship Tested	Path Coefficient	t-value	p-value	Decision
H1	Effect of perceived greenwashing on brand trust	-0.46	7.84	<0.001	Supported
H2	Effect of perceived greenwashing on perceived brand authenticity	-0.42	6.91	<0.001	Supported
H3	Effect of brand trust on purchase intention	0.39	6.28	<0.001	Supported
H4	Effect of perceived brand authenticity on purchase intention	0.34	5.73	<0.001	Supported
H5	Direct effect of perceived greenwashing on purchase intention	-0.18	2.96	0.003	Supported

As presented in Table 5, the path coefficient of perceived greenwashing on brand trust is found to be -0.46 with p-value<0.001, which indicates that perceived greenwashing has a significant negative effect on brand trust. This means that if consumers do not find jewellery brands' sustainability statements to be credible, they lose faith in the brand. When consumers feel that the brands' sustainability statements are not substantiated or evidence-based, or are vague, exaggerated, or misleading, they lose their trust in the brand. Hence, H1 is accepted.

The results also indicate that perceived greenwashing has a significant negative effect on perceived brand authenticity with the path coefficient as -0.42 and the p value as <0.001. This indicates that unsubstantiated sustainability statements diminish the credibility of a jewellery brand in appearing to be sincere, consistent and genuine with its values. Hence, H2 is encouraged.

Purchase intention is positively associated with brand trust with a path coefficient of 0.39 and p-value < 0.001. This means that more customers are likely to be interested in buying jewellery brands they trust. Thus, it remains true that H3 supports. Additionally, perceived brand authenticity has a strong positive effect on purchase intention, with a path coefficient of 0.34 and a p-value of <0.001, indicating that consumers are more likely to make a purchase from brands that are perceived as being authentic, consistent, and value-driven. Hence, it is claimed that H4 is supported.

Perceived greenwashing also has a negative path coefficient of -0.18 and a p-value of 0.003 when it comes to purchase intention. It means that if consumers feel that the brand is greenwashing, they may be less motivated to buy from the brand. As a result, H5 is supported.

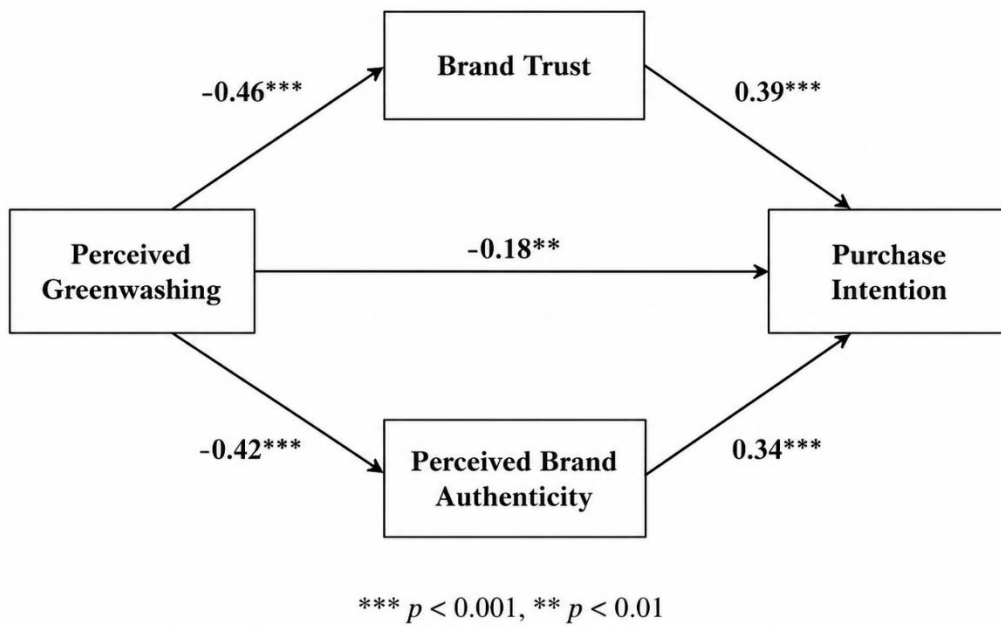


Figure 2. Structural model results showing the direct effects among perceived greenwashing, brand trust, perceived brand authenticity, and purchase intention.

The main constructs are summarized in terms of their structural relationships in Figure 2. The figure reveals that perceived greenwashing has a negative impact on both perceived brand trust and perceived brand authenticity. It also reveals that the trust in a brand and the perceived brand authenticity have positive effects on purchase intention. The direct negative impact of perceived greenwashing on purchase intention is also demonstrated, suggesting that the absence of support in the sustainability

claims could negatively impact the willingness to purchase, both directly and indirectly.

5.5 Mediation Results

To test the possibility that brand trust and perceived brand authenticity are mediators between perceived greenwashing and purchase intention, mediation analysis was performed. Bootstrapping was used to test the significance of the indirect effects. The mediation results are summarized in Table 6 and graphically summarized in Figure 3.

Table 6. Mediation Analysis Results showing the indirect effects of perceived greenwashing on purchase intention through brand trust and perceived brand authenticity.

Mediation Path Tested	Indirect Effect	t-value	p-value	Decision
Perceived greenwashing through brand trust to purchase intention	-0.18	4.82	<0.001	Supported
Perceived greenwashing through perceived brand authenticity to purchase intention	-0.14	4.17	<0.001	Supported

As seen in Table 6, brand trust is a significant mediator between perceived greenwashing and purchase intention. As can be seen in Table 6, brand trust is a significant mediator between perceived greenwashing and purchase intention. The indirect effect via brand trust is -0.18 (t-value = 4.82; p-value < 0.001). This suggests that consumer trust in a brand is one reason why they feel less likely to buy the product if they think it is green-washing.

Additionally, the results reveal a significant mediation effect in between the perceived greenwashing and the purchase intention constructs of perceived brand authenticity. The indirect effect is perceived brand authenticity, which has a value of -0.14, a t-value of 4.17, and a p-value lower than 0.001. This suggests that perceived greenwashing decreases purchase intention, since it makes the brand seem less sincere, less real and less aligned with its values.

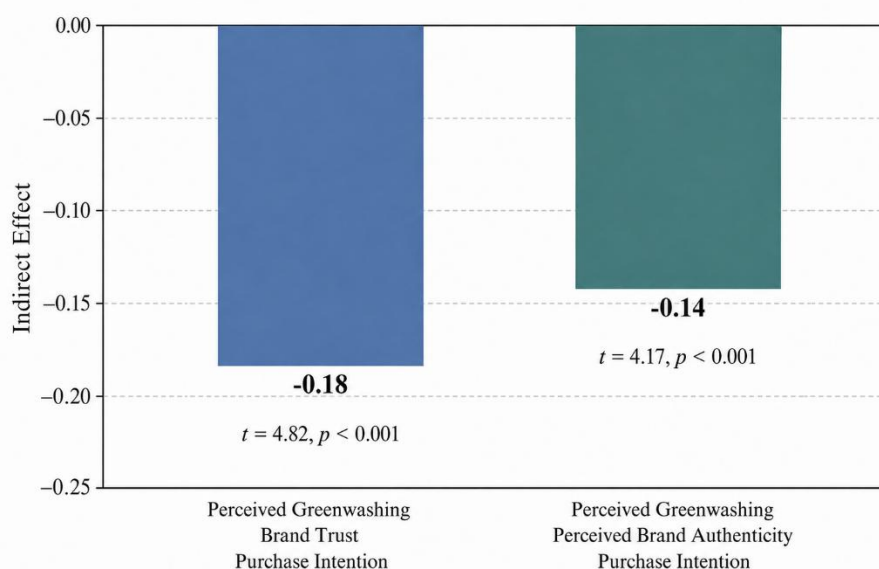


Figure 3. Mediation Effects of Brand Trust and Perceived Brand Authenticity

The two indirect effects of perceived greenwashing on purchase intention are shown in figure 3. The mediation effect between perceived brand authenticity and the behavioral outcomes is weaker than the mediation effect between brand trust and the behavioral outcomes. This suggests that trust is especially important in explaining the reduction in purchase intention in the context of greenwashing perceptions. However, perceived brand authenticity also has a significant influence and consumers of jewellery value the brand on various criteria, including functional credibility, sincerity, symbolic value and consistency between claims and actions. The findings indicate that overall, the greenwashing constructs negatively impact the consumers' perceptions of the jewellery brand in the Saudi market. It diminishes trust in the brand, its perceived authenticity, and will decrease the willingness to purchase the brand. The results further indicate that brand trust and perceived brand authenticity are key mechanisms that mediate the relationship between perceived greenwashing and customer behaviour.

6. Discussion

The study findings show the significance of perceived greenwashing with regard to customer behaviour in the Saudi jewellery industry. The results indicate that sustainability communication is not just perceived as promotional language, but also as an indicator of ethical behavior, responsible sourcing and brand credibility, perceived by consumers. If a jewellery brand doesn't provide transparent evidence to back up any vague, exaggerated, selective or unsubstantiated sustainability claims, consumers will be suspicious of the brand's authenticity and credibility.

Consumers' perceived greenwashing has a negative impact on their purchase-related decisions in a high-involvement market like jewellery (Ulusoy & Barretta, 2016; De Jong et al., 2020) which is the main argument of the study.

The overall findings show that perceived greenwashing can have a negative impact on brand trust, suggesting that when consumers perceive jewellery brands as engaging in greenwashing, they lose trust in them. When people buy jewellery, they are often spending a significant amount of money, the item is likely to have some emotional connection, may be an item of long-term value and will have symbolic meaning. In this context, their customers rely heavily on the brand promises as they are unable to check every statement regarding the source of the product, the ethics with which it is produced, or the environmental protection measures taken. Thus, if the sustainability communication is deceptive, it does not just impact on the specific claim; it also has a negative impact on the trust of consumers in the brand (Tarabieh, 2021; Sun & Shi, 2022).

The results further indicate that the perceived greenwashing decreases perceived brand authenticity. This is particularly important in the jewellery industry where consumers aren't buying jewellery just for its functional use. They also attribute significance to the image, the craftsmanship, the heritage, the emotional nature and the symbolic nature of the brand. When a brand touts itself as ethical, responsible, or sustainable without substantiating proof, consumers might think the brand is less authentic and less aligned with its values. This can affect the credibility of the brand, as it loses its authenticity and purposefulness (De Jong et al., 2020; Balaskas et al., 2025).

The Positive correlation between brand trust and purchase intention shows that the importance of trust in jewellery buying decision cannot be ignored. When it comes to purchasing the products, the consumer is more likely to buy from a brand that he or she thinks will be honest, reliable, and keep its promises. Jewellery is an integral part of weddings, family events, giving presents, religious events, preserving wealth and inter-generational value within the Saudi jewellery market making trust all the more crucial. When there is lack of trust, perceived risk is created, and the consumers are not willing to interact with the brand (Tarabieh, 2021; Sharma, 2021).

Likewise, the positive association of perceived brand authenticity and purchase intention indicates that authenticity is a key factor in consumer behaviour. Supported jewellery brands are more likely to be accepted by the consumers, if they are sincere, consistent and value driven. Consumers are more likely to think that the brand's claims to sustainability is more authentic if it is part of their business identity, and not just a marketing tactic. In luxury and jewellery, the emotional and symbolic values of the brand are also crucial as consumers may consider them alongside quality (Sharma, 2021; Balaskas et al., 2025).

The mediation results, in turn, provide an explanation of the effects of greenwashing on purchase intention. Perceived greenwashing is not just detrimental to purchase intention directly, but also indirectly by undermining the brand trust and perceived brand authenticity. This implies that consumers make relational judgements with regard to greenwashing. If they feel that a brand's sustainability communication is ambiguous or not backed up, they rethink their trust in the brand and its authenticity. Lack of trust or authenticity leads to consumers being less willing to buy from or recommend the brand (Tarabieh, 2021; Sun & Shi, 2022).

The results also have implications for the Saudi regulatory and disclosure environment. Saudi Arabia jewellery market is influenced by the buyer's expectation of accuracy, transparency and full disclosure of jewellery, particularly concerning the type of metal, weight, purity, price and characteristics of the gemstones. While sustainability declarations might not have their own dedicated greenwashing legislation, the consumer protection, anti-fraud, e-commerce, and jewellery disclosure landscape more broadly promotes consumer expectation of having to be met by factual and verifiable claims. A part of this, sustainability narratives in jewellery could seem inconsistent with the precision level that is typically expected in jewellery deals (De Jong et al., 2020; Ulusoy & Barretta, 2016).

Management-wise, the results indicate that jewellery companies should have a more evidence-based approach to sustainability communications than simply using it for marketing fluff. Use of general terms (e.g., 'eco-friendly', 'ethical', 'responsibly sourced', 'sustainable') should be used with care and backed up with documentation, certification, traceability information and clear sourcing statements. There is a danger that unsupported claims may lead to suspicion. Given the emotional, cultural and financial significance of jewellery purchases, any ambiguous sustainability messaging can negatively impact a brand's reputation and purchase intention (Sharma, 2021; Sun & Shi, 2022).

In general, the findings confirm that beyond the communication effect, greenwashing is also a relationship effect. Impacts consumer perception of brands' honesty, sincerity and credibility. Considering the limitations of previous research, the study adds to the existing literature on sustainability communication and luxury consumption studies by elucidating the role of trust and authenticity in shaping consumer attitude and behaviour in the context of greenwashing perceptions in the Saudi jewellery industry. The results underscore the importance of a jewellery brand having evidence to back up their sustainability claims, communicating transparently and acting consistently.

7. Conclusion

The effect of perceived greenwashing on the customer behaviour in the jewellery industry in Saudi Arabia is studied specifically on the level of the customers' trust in the brand, their perception of the brand authenticity and their intention to purchase the brand. The study reveals that sustainability communication is now playing a prominent role in the marketing of jewellery, particularly because consumers are now more concerned about the ethics of sourcing, environmental responsibility, and transparency with respect to the brand. When sustainability claims are ambiguous, hyperbole, cherry-picking or evidence free, however, it can be viewed as greenwashing and it can erode customer trust. The results show that greenwashing perception has a negative impact on brand trust and brand authenticity. Consumers trust brands with their jewellery purchases, and can be emotionally attached, have cultural significance and long term ownership, meaning there is a high level of trust and credibility in the jewellery industry. When a brand's sustainability communication is not convincing, customers will be skeptical of the sustainability claim, as well as the brand's integrity. The study also points out that the brand trust and perceived brand authenticity have impact on purchase intention. When consumers feel that jewellery brands are honest, reliable, sincere and

consistent with their values, they are more inclined to purchase from the brand. They are particularly significant in the Saudi context, which is one in which jewellery is deeply embedded within the context of relationships, such as gifting, marriage, family events, religious occasions, and the preservation of wealth. The study concludes that jewellery brands should carry out communication on sustainability as evidence based disclosure rather than promotional communication. Well-defined, specific and measurable claims can enhance the trust, authenticity, and purchase intention, whereas unbacked claims can harm the brand.

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