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EMOTION, ETHICS AND ENGAGEMENT: A SERIAL MEDIATION EXPLORATION OF BRAND PERCEPTION AND BRAND LOYALTY FOR GREEN PRODUCTS

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ABSTRACT

In today's consumer-centric landscape, the role of emotional and ethical considerations in green marketing has become increasingly significant. This study investigated the serial mediating effect of ethical emotional green marketing and emotion-based purchase behaviour in the relationship between brand perception and brand loyalty. Based on the data collected from the sample of 550 respondents, a series of multiple regression analyses was used to test the proposed mediation model. The findings indicate that brand perception has a significant positive impact on emotional green engagement, which positively affects perceptions of ethically emotional green marketing. Such emotionally aligned perceptions have a positive effect on purchase behaviours, which in turn strengthens brand loyalty in the long run. The results also show that indirect effects through multiple pathways have a greater impact, confirming the importance of multi-stage emotional and ethical resonance in developing sustainable brand relationships.

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INTRODUCTION

With growing environmental concerns, the interest in green products and sustainable consumption is increasing. Therefore, green marketing has been a key strategy to influence the consumers' perception, involvement, purchase decisions and loyalty. Recent evidence shows that green marketing and branding impact green brand image, buying decisions and customer loyalty (Aly et al., 2025). However, consumer responses to green products are not solely determined by perception. Loyalty may be influenced jointly by emotional engagement, ethical marketing evaluation and purchase-related emotions. The existing research usually studies these relationships separately and little is known about their sequential mechanism. Therefore, this study examines whether Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior

sequentially mediate the relationship between Brand Perception and Brand Loyalty. It also compares direct and indirect effects to determine whether this emotional-ethical-behavioral pathway provides stronger explanatory power.

STATEMENT OF THE PROBLEM

Despite growing interest in green products, consumers do not always translate favourable brand perceptions into purchase and continued loyalty. Existing studies mainly examine individual relationships among green perception, engagement, ethical marketing, purchase behavior, and loyalty, while their sequential emotional-ethical-behavioral mechanism remains insufficiently examined. Therefore, the problem addressed in this study is to determine how Brand Perception influences Brand Loyalty through Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior in a serial mediation process.

RESEARCH GAP

Existing green marketing research largely examines brand perception, emotional engagement, ethical marketing, purchase behavior, and brand loyalty as separate relationships. Limited research has examined these constructs as a sequential mechanism, particularly through the combined pathway of Brand Perception → Emotional Green Engagement → Ethically Emotional Green Marketing → Emotion-Based Purchase Behavior → Brand Loyalty. Moreover, evidence on the relative strength of direct and serial indirect effects is still limited. The present study fills these gaps by empirically testing the proposed serial mediation model in the setting of green-product.

LITERATURE REVIEW

Emotional Green Engagement: Emotional Green Engagement (EGE) signifies the degree to which consumers connect with or get involved in the psychologically and emotionally charged movements of eco-friendly brands. Rather than just consideration or purchase intention, EGE includes dimensions like interactions, activism, and ongoing involvement. According to Yang and Su (2026), Green Emotional Involvement has a great impact on engagement behavior, with perceived value serving as a significant mediator. Similarly, Rayne et al. (2026) demonstrated that post-purchase green brand engagement helps translate consumers' altruistic, biospheric, and egoistic values into desired self-identity and perceived life-meaning benefits, highlighting the psychological significance of engagement with green brands. The emotional dimension of sustainable brand relationships is further supported by Fazel-e-Hasan et al. (2025), who found that perceived brand innovativeness and brand knowledge can generate brand love and repurchase intentions for sustainable brands. Their findings indicate that emotional responses can strengthen consumers' continuing relationships with sustainable brands. Nguyen et al. (2026) likewise reported that sustainability marketing enhances functional, emotional, and social perceived value, which subsequently increases consumer brand engagement. According to Duong (2026), the implementation of creative sustainability communication boosts emotional attachment to a brand as well as loyalty among consumers, thus affirming that EGE enables the transition from favourable green perceptions to meaningful engagement in the field of ethical marketing.

Ethical Emotional Green Marketing: Ethical Emotional Green Marketing (EEGM) combines such concepts as environmental responsibility, ethics, transparency, and emotional communication to create trustworthiness and value alignment, especially in light of increased consumer scepticism regarding overstated sustainability claims and greenwashing practices. Mehmood et al. (2026) found that green and ethical offerings, transparency and disclosure, and social and environmental initiatives significantly influence perceived corporate social responsibility and green brand image. The study further demonstrated that these mechanisms can translate sustainability practices into consumers' willingness to pay, while ethical green orientation strengthens these relationships. Similarly, Dinana et al. (2025), using data from 700 consumers, demonstrated that perceived sustainable advertising can enhance brand engagement through credibility, authenticity, and consumer-brand identification, emphasizing

that sustainability communication must be perceived as genuine rather than merely promotional. Long et al. (2025), based on a survey of 1,512 consumers, further examined ethical marketing and sustainable marketing and their influence on sustainable purchasing behaviour, providing empirical support for the role of ethical marketing practices in shaping consumers' sustainable responses. Odoom et al. (2025) similarly found that green and ethical offerings, transparency, and social/environmental initiatives can influence brand reputation and engagement, while consumer education and empowerment help convert sustainability initiatives into meaningful consumer responses. Moreover, the systematic review by recent greenwashing research demonstrates that deceptive or exaggerated environmental claims can undermine consumer trust, brand perceptions, and confidence in corporate sustainability communication, reinforcing the importance of authenticity and transparency in ethical green marketing. Collectively, these studies suggest that EEGM is not merely a promotional technique but a credibility- and value-based mechanism through which sustainability commitments are communicated and emotionally interpreted by consumers. This supports its proposed mediating position between Emotional Green Engagement and Emotion-Based Purchase Behavior in the present study.

Emotion-Based Purchase Behavior (EBP): Refers to consumers' purchasing responses that are substantially influenced by affective experiences, emotional value, anticipated feelings, and psychological attachment to environmentally responsible products. In green consumption, purchasing decisions are not determined exclusively by functional or economic evaluations; consumers may also purchase sustainable products because such choices generate feelings of pride, moral satisfaction, personal responsibility, and emotional fulfilment. Recent research provides strong evidence for the importance of emotional mechanisms in green purchasing. Zhong et al. (2025), through two experiments, demonstrated that green self-accountability enhances sustainable purchasing, particularly for immediate choices, with anticipated pride serving as an important psychological mechanism. Their findings indicate that positive anticipated emotions can transform environmental responsibility into concrete purchasing decisions.

Similarly, Aly and Al-Salfiti (2025), using data from 420 consumers in Egypt, found that emotional value significantly predicts green purchase intention alongside functional and social values. Their findings further show that green trust strengthens the pathway between consumption values and green purchasing intentions. Ng et al. (2025) provide additional evidence that emotional value is a central mechanism in green purchasing. Their study of green digital interactions found that emotional, functional, and relational values help explain green purchase behavior, with emotional value acting as a particularly important mediating mechanism between digital interaction and green purchasing. Liu et al. (2025), examining 572 luxury consumers, found that green perceived value strengthens brand attitude and brand trust, which subsequently increase purchase intention; digital customer engagement further strengthens the relationship between green perceived value and brand trust. Finally, Shi et al. (2026), using 915 consumers, found that emotional value was the strongest mediating pathway between perceived green value and green furniture purchase intention, demonstrating that emotional resonance can transform environmental perceptions into

purchase decisions. Collectively, these studies demonstrate that emotional responses constitute an important bridge between consumers' green perceptions and their purchasing decisions. This evidence supports the proposed EBP construct as a mediator between Ethically Emotional Green Marketing and Brand Loyalty in the present serial mediation framework.

Brand Loyalty: Brand Loyalty (BL) refers to consumers' enduring commitment to a particular brand, reflected through repeated purchasing, preference, attachment, advocacy, and willingness to maintain a relationship with the brand. Within the green-product context, brand loyalty extends beyond conventional satisfaction and repurchase behaviour because consumers may remain loyal when a brand reflects their environmental values, demonstrates credible sustainability practices, and creates meaningful emotional connections. Recent literature confirms that sustainability-related brand perceptions are increasingly important determinants of green brand loyalty. Trinh et al. (2025), through a systematic review of green brand equity research, identify green brand loyalty as an increasingly prominent research stream and emphasize that loyalty in green markets is strongly associated with consumers' alignment with a brand's environmental mission, green transparency, value creation, and trust. Watson et al. (2024), using data from 2,001 Gen Y and Gen Z consumers, further demonstrate that green brand image positively contributes to brand loyalty and can mediate the relationship between consumers' environmental values and loyalty. Recent empirical research also highlights the importance of identification and perceived value. Nguyen et al. (2026) found that green hotel practices strengthen green brand loyalty through perceived brand value, brand identification, and perceived green service innovation, demonstrating that sustainability initiatives can create stronger consumer-brand relationships.

Similarly, a 2025 study of road-race participants found that green brand positioning enhances green brand attitude and identification, which subsequently contribute to green brand loyalty. The emotional pathway is particularly relevant to the present research. Fazal-e-Hasan et al. (2025) found that perceived innovativeness and knowledge of sustainable brands stimulate brand love and repurchase intentions, showing how emotional attachment can translate sustainability perceptions into enduring behavioural relationships. More recently, Duong (2026) demonstrated that creative sustainability increases emotional brand attachment, which subsequently drives consumer loyalty in sustainable fashion. Overall, recent evidence indicates that green brand loyalty is formed through a combination of credible sustainability perceptions, value congruence, identification, trust, and emotional attachment. These findings provide strong support for positioning Brand Loyalty as the ultimate dependent construct in the present serial mediation framework.

OBJECTIVES

- To examine the serial mediation effect of Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior between Brand Perception and Brand Loyalty.
- To compare the direct and indirect effects to determine whether emotional and ethical pathways provide stronger predictive power than direct influence.

Hypotheses

H₁: Emotional Green Engagement significantly mediates the relationship between Brand Perception and Ethically Emotional Green Marketing.

H₂: Ethically Emotional Green Marketing significantly mediates the relationship between Emotional Green Engagement and Emotion-Based Purchase Behavior.

H₃: Emotion-Based Purchase Behavior significantly mediates the relationship between Ethically Emotional Green Marketing and Brand Loyalty.

H₄: Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior significantly serially mediate the relationship between Brand Perception and Brand Loyalty.

H₅: The indirect effect of Brand Perception on Brand Loyalty through the three mediators is stronger than its direct effect.

H₆: The indirect effect of Emotional Green Engagement on Brand Loyalty through Ethically Emotional Green Marketing and Emotion-Based Purchase Behavior is stronger than its direct effect.

H₇: The indirect effect of Emotional Green Engagement on Emotion-Based Purchase Behavior through Ethically Emotional Green Marketing is stronger than its direct effect.

H₈: The indirect effect of Ethically Emotional Green Marketing on Brand Loyalty through Emotion-Based Purchase Behavior is stronger than its direct effect.

H₉: Emotion-Based Purchase Behavior significantly and directly affects Brand Loyalty.

RESEARCH METHODOLOGY

This study employed a quantitative, descriptive and causal research design. Primary data were collected through a structured questionnaire using a 5-point Likert scale from 550 consumers in Varanasi, Uttar Pradesh, through convenience sampling during February–August 2026. The data were analyzed using regression analysis, serial mediation, Sobel tests, and Cohen's f^2 effect size. The reliability of the questionnaire was satisfactory, with a Cronbach's alpha of 0.919, indicating high internal consistency. The proposed model examined the serial pathway Brand Perception → Emotional Green Engagement → Ethically Emotional Green Marketing → Emotion-Based Purchase Behavior → Brand Loyalty, with direct and indirect effects compared to assess the strength of the mediation process.

DATA ANALYSIS AND INTERPRETATION

COHEN'S F^2 EFFECT SIZE

H₁: Emotional Green Engagement significantly mediates the relationship between Brand Perception and Ethically Emotional Green Marketing. Supported. The Sobel test was significant ($Z = 14.76$, $p < .001$).

Serial Mediation Effect of Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior Between Brand Perception and Brand Loyalty

Hypothesis	Path	(β)	(SE)	(Z-value, p-value)	Result
H1	BP $\rightarrow$ EGE $\rightarrow$ EEGM	BP $\rightarrow$ EGE: 0.5162 EGE $\rightarrow$ EEGM: 0.7282	0.0277 (R1) 0.0301 (R2)	$Z = 14.76$, $p < 0.001$	Supported
H2	EGE $\rightarrow$ EEGM $\rightarrow$ EBP	EGE $\rightarrow$ EEGM: 0.7282 EEGM $\rightarrow$ EBP: 0.6579	0.0301 (R2) 0.0355 (R3)	$Z = 14.71$, $p < 0.001$	Supported
H3	EEGM $\rightarrow$ EBP $\rightarrow$ BL	EEGM $\rightarrow$ EBP: 0.6579 EBP $\rightarrow$ BL: 0.5704	0.0355 (R3) 0.0342 (R4)	$Z = 12.40$, $p < 0.001$	Supported
H4	BP $\rightarrow$ EGE $\rightarrow$ EEGM $\rightarrow$ EBP $\rightarrow$ BL	0.1410	—	$Z = 7.50$, $p < 0.001$	Supported
H9	EBP $\rightarrow$ BL(Direct)	0.5704	0.0432	0.0342	Supported

Comparison of Direct and Indirect Effects to Determine Predictive Power

Hypothesis		Direct Effect(β)	Indirect Effect (β)	Result
H5	BP $\rightarrow$ BL	0.0962	0.1410 (via EGE $\rightarrow$ EEGM $\rightarrow$ EBP)	Supported
H6	EGE $\rightarrow$ BL	0.1554	0.2730 (via EEGM $\rightarrow$ EBP)	Supported
H7	EGE $\rightarrow$ EBP	0.235	0.4791 (via EEGM)	Supported
H8	EEGM $\rightarrow$ BL	0.2413	0.3754 (via EBP)	Supported

Indirect Effect Calculation – Serial Mediation

To compute the full serial indirect effect from BP $\rightarrow$ EGE $\rightarrow$ EEGM $\rightarrow$ EBP $\rightarrow$ BL:

- Step 1: BP $\rightarrow$ EGE = 0.5162
- Step 2: $\times$ EGE $\rightarrow$ EEGM = 0.7282 $\rightarrow$ 0.5162 $\times$ 0.7282 = 0.3759
- Step 3: $\times$ EEGM $\rightarrow$ EBP = 0.6579 $\rightarrow$ 0.3759 $\times$ 0.6579 = 0.2473
- Step 4: $\times$ EBP $\rightarrow$ BL = 0.5704 $\rightarrow$ 0.2473 $\times$ 0.5704 = 0.1410

Total Indirect Effect (Serial Mediation): $\beta = 0.1410$

Sobel Test Results – Mediation Verification

Path Tested	Mediation Chain	Sobel Z	p-Value	Interpretation
Sobel 1	BP $\rightarrow$ EGE $\rightarrow$ EEGM	14.76	< 0.001	EGE significantly mediates BP's influence on EEGM
Sobel 2	EGE $\rightarrow$ EEGM $\rightarrow$ EBP	14.71	< 0.001	EEGM mediates EGE's effect on EBP
Sobel 3	EEGM $\rightarrow$ EBP $\rightarrow$ BL	12.40	< 0.001	EBP mediates EEGM's effect on BL
Sobel 4	BP $\rightarrow$ Full Serial Path $\rightarrow$ BL	7.50	< 0.001	Full serial mediation confirmed

Sobel Test for Significance of Indirect Paths

SOBEL TEST RESULTS – Mediation Verification

Path Tested	Mediation Chain	Sobel Z	p-Value	Interpretation
Sobel 1	BP $\rightarrow$ EGE $\rightarrow$ EEGM	14.76	< 0.001	EGE significantly mediates BP's influence on EEGM
Sobel 2	EGE $\rightarrow$ EEGM $\rightarrow$ EBP	14.71	< 0.001	EEGM mediates EGE's effect on EBP
Sobel 3	EEGM $\rightarrow$ EBP $\rightarrow$ BL	12.40	< 0.001	EBP mediates EEGM's effect on BL
Sobel 4	BP $\rightarrow$ Full Serial Path $\rightarrow$ BL	7.50	< 0.001	Full serial mediation confirmed

COHEN'S F² EFFECT SIZE

Predictor Variable	R ² (Included)	R ² (Excluded)	f ² Effect Size	Effect Strength
EBP $\rightarrow$ Loyalty	0.46	0.30	0.296	Moderate–Large
EEGM $\rightarrow$ Loyalty	0.40	0.32	0.118	Small–Moderate
Emotional Engagement $\rightarrow$ Loyalty	0.38	0.30	0.111	Small–Moderate
EEGM $\rightarrow$ EBP	0.43	0.33	0.175	Moderate
Emotional Engagement $\rightarrow$ EEGM	0.53	0.42	0.234	Moderate
Perception $\rightarrow$ Emotional Engagement	0.42	0.30	0.207	Moderate

H₂: Ethically Emotional Green Marketing significantly mediates the relationship between Emotional Green Engagement and Emotion-Based Purchase Behavior. Supported. The Sobel test was significant ($Z = 14.71$, $p < .001$).

H₃: Emotion-Based Purchase Behavior significantly mediates the relationship between Ethically Emotional Green Marketing and Brand Loyalty. Supported. The Sobel test was significant ($Z = 12.40$, $p < .001$).

H₄: Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior serially mediate the relationship between Brand Perception and Brand Loyalty. Supported. The full serial pathway was significant ($\beta = 0.1410$; $Z = 7.50$, $p < .001$).

H₅: The indirect effect of Brand Perception on Brand Loyalty is stronger than its direct effect. Supported. Indirect effect ($\beta = 0.1410$) exceeded direct effect ($\beta = 0.0962$).

H₆: The indirect effect of Emotional Green Engagement on Brand Loyalty is stronger than its direct effect. Supported. Indirect effect ($\beta = 0.2730$) exceeded direct effect ($\beta = 0.1554$).

H₇: Ethically Emotional Green Marketing has a stronger indirect influence on Brand Loyalty through Emotion-Based Purchase Behavior. Supported. Indirect effect ($\beta = 0.3754$) exceeded direct effect ($\beta = 0.2413$).

H₈: Ethically Emotional Green Marketing significantly influences Brand Loyalty through Emotion-Based Purchase Behavior. Supported. The indirect pathway was significant, with $\beta = 0.3754$ and Sobel $Z = 12.40$ ($p < .001$).

H₉: Emotion-Based Purchase Behavior significantly affects Brand Loyalty. Supported. EBP showed the strongest direct effect on Brand Loyalty ($\beta = 0.5704$). Overall, all proposed hypotheses were supported. The findings indicate that Brand Perception influences Brand Loyalty more effectively through the sequential emotional–ethical–behavioral pathway than through a direct relationship.

FINDINGS AND DISCUSSION

The present study investigated how Brand Perception (BP) contributes to Brand Loyalty (BL) for green products through a sequential mechanism involving Emotional Green Engagement (EGE), Ethically Emotional Green Marketing (EEGM), and Emotion-Based Purchase Behavior (EBP). The findings support both research objectives and demonstrate that green brand loyalty is not generated solely through consumers' perceptions of a brand. Rather, the relationship develops progressively as favorable perceptions stimulate emotional engagement, emotional engagement strengthens perceptions of ethical green marketing, ethical-emotional evaluations encourage purchase behavior, and purchase behavior ultimately contributes to loyalty. This interpretation is consistent with recent research showing that sustainability-oriented brand practices can influence consumer responses through interconnected psychological and behavioral mechanisms rather than through a single direct pathway (Rayne et al., 2026).

Serial Mediation Effect of Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior: The first objective was to examine the serial mediation effect of Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior between Brand Perception and Brand Loyalty. The findings provide strong support for this objective. The complete pathway—Brand Perception → Emotional Green Engagement → Ethically Emotional Green Marketing → Emotion-Based Purchase Behavior → Brand Loyalty—was statistically significant. The total serial indirect effect was $\beta = 0.1410$, while the Sobel test for the complete pathway produced $Z = 7.50$ ($p < 0.001$). All component mediation pathways were also statistically significant, confirming that the three mediators operate sequentially rather than independently. The first stage of the model demonstrates that Brand Perception positively contributes to Emotional Green Engagement. This indicates that consumers who hold favorable perceptions of green brands are more likely to develop emotional involvement with those brands. Such a finding is consistent with recent research showing that

sustainability-oriented brand authenticity and green engagement can generate stronger brand identification, brand love, and subsequent consumer responses. The finding also complements Rayne et al. (2026), who demonstrated that post-purchase green brand engagement acts as an important mechanism through which consumers' altruistic, biospheric, and egoistic values are translated into desired self-identity and perceived life-meaning rewards. Their findings suggest that engagement with green brands is more than a passive response to environmental communication; it represents an important psychological mechanism through which consumers develop deeper relationships with sustainable brands.

The second stage of the present model establishes a significant relationship between Emotional Green Engagement and Ethically Emotional Green Marketing. The mediation analysis produced a Sobel Z -value of 14.76 ($p < 0.001$), demonstrating that emotional engagement significantly contributes to the development of ethical perceptions of green marketing. This result suggests that consumers who are emotionally involved with a green brand may be more receptive to sustainability claims when those claims are communicated through ethical, transparent, and value-consistent marketing practices. Recent research by Dinana et al. (2025) similarly demonstrates that sustainable advertising can influence brand engagement and reputation through perceptions associated with sustainability communication. Likewise, Odoom et al. (2025) found that sustainable digital marketing practices involving green and ethical offerings, transparency, and social and environmental initiatives can influence brand reputation and engagement through consumer education and empowerment. The third stage indicates that Ethically Emotional Green Marketing significantly influences Emotion-Based Purchase Behavior. The Sobel test for the EEGM → EBP pathway yielded $Z = 14.71$ ($p < 0.001$), confirming that ethical-emotional marketing operates as an important mechanism in translating sustainability-related perceptions into consumer action. This finding is supported by recent green-consumption research emphasizing the role of emotional and value-based mechanisms in purchase decisions. Ng et al. (2025), for example, found that emotional value plays a central mediating role between green digital interactions and green purchase behavior. Their findings indicate that consumers' emotional evaluations can help transform sustainability-related interactions into purchasing responses. Similarly, Aly and Al-Salfiti (2025) found that emotional, functional, and social consumption values contribute to green purchase intention, reinforcing the importance of affective value in sustainable consumer decision-making. The final stage of the serial pathway demonstrates that Emotion-Based Purchase Behavior significantly contributes to Brand Loyalty. EBP emerged as the strongest direct predictor of Brand Loyalty in the model, with $\beta = 0.5704$, while the corresponding Sobel test was significant at $Z = 12.40$ ($p < 0.001$). This means that emotions and ethics in marketing upsurge loyalty when their effect comes down to consumer actions. Therefore, the findings support Objective 1, with a significant indirect effect ($\beta = 0.1410$) demonstrating the way from perception to loyalty formed by the emotional approach, ethical-emotional marketing, and buying behavior.

Comparison of Direct and Indirect Effects: The second objective was to compare the strength of direct and indirect effects in order to determine whether the emotional and ethical mediation pathways provide stronger explanatory power than

direct relationships. The findings provide strong support for this objective. The results show that the indirect effects were consistently stronger than the corresponding direct effects for Brand Perception, Emotional Green Engagement, and Ethically Emotional Green Marketing. For Brand Perception → Brand Loyalty, the direct effect was $\beta = 0.0962$, whereas the complete indirect effect through Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior was $\beta = 0.1410$. This difference indicates that a favorable perception of a green brand does not automatically translate into strong loyalty. Instead, the perception becomes more influential when it stimulates emotional involvement, strengthens ethical evaluations, and eventually leads to purchase behavior. This interpretation is consistent with recent research showing that sustainability branding can influence loyalty through intermediate psychological mechanisms such as trust, emotional attachment, and brand-related identification. For example, recent evidence from sustainability branding research shows that sustainability-oriented branding positively affects brand image, trust, emotional attachment, and loyalty, with stronger effects among consumers with greater environmental awareness. The indirect influence of Emotional Green Engagement on Brand Loyalty was also stronger than its direct effect. The direct effect of EGE on loyalty was $\beta = 0.1554$, while its indirect effect through EEGM and EBP increased to $\beta = 0.2730$.

This finding indicates that emotional engagement alone may not be sufficient to create strong loyalty. Rather, emotional engagement becomes more consequential when it is transformed into perceptions of ethical marketing and ultimately into purchasing behavior. This interpretation is consistent with Rayne et al. (2026), who identify green brand engagement as an important mechanism through which consumer values are converted into deeper psychological outcomes. Ethically Emotional Green Marketing (EEGM) has a positive impact on Brand Loyalty but becomes even more significant when it triggers purchase behavior ($\beta = 0.3754$). Emotion-Based Purchase Behavior is the most powerful predictor for Brand Loyalty ($\beta = 0.5704$), showing that ethical and emotional green communication must result in action to create an effect. Ng et al. (2025) found that emotional value is a central mechanism linking green digital interaction with green purchase behavior. The overall comparison therefore indicates that the indirect pathways provide greater explanatory value than isolated direct relationships. The full indirect pathway from Brand Perception to Brand Loyalty ($\beta = 0.1410$) exceeded the direct pathway ($\beta = 0.0962$), while EGE and EEGM also demonstrated stronger indirect than direct effects. The Sobel results further confirm that these mediation mechanisms are statistically robust, with all reported indirect pathways significant at $p < 0.001$. Thus, Objective 2 is supported. The findings demonstrate that emotional and ethical mechanisms amplify the influence of Brand Perception on Brand Loyalty. Rather than viewing green brand loyalty as a simple consequence of favorable brand perception, the results indicate that loyalty develops through a sequential process in which consumers first perceive the brand positively, become emotionally engaged, evaluate its sustainability communication ethically, and subsequently express these evaluations through purchase behavior. This provides stronger explanatory value than a direct perception–loyalty relationship and reinforces the importance of integrating emotional, ethical, and behavioral dimensions within green marketing strategies.

CONCLUSION

This study examined how Brand Perception influences Brand Loyalty through Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior. The results support a significant sequential mediation path from Brand Perception to Brand Loyalty through the three mediators. All hypotheses examined in this study were confirmed, demonstrating that emotional, ethical and behavioural mechanisms together contribute to the strengthening of consumer loyalty. The total serial indirect effect was significant and higher than the direct effect of Brand Perception on Brand Loyalty. Also, the indirect effects via the mediators were stronger than the direct effects. There was a significant direct effect of Emotion-Based Purchase Behaviour on Brand Loyalty. In general, the results suggest that positive brand perceptions alone are not enough, but a combination of emotional engagement, ethical marketing perceptions and purchase behaviour turn green brand perceptions into stronger and more sustainable customer loyalty.

THEORETICAL IMPLICATIONS

The study extends green marketing theory by validating a serial mediation model linking Brand Perception to Brand Loyalty through Emotional Green Engagement, Ethically Emotional Green Marketing, and Emotion-Based Purchase Behavior. Customer loyalty is based on both emotions and ethics.

It is thus important that marketing strategies are developed responsibly and ethically. With emotional engagement, true ethical values, and impulse buying based on emotions, customer loyalty will flourish.

FUTURE RESEARCH SCOPE

The future research could expand the proposed model by employing it in different product categories and consumer types with more diverse and large samples. Also, longitudinal and cross-cultural research could be conducted to give more proof of the mediation mechanisms suggested. Furthermore, future studies may involve such factors as trust in green products, ecological awareness, brand authenticity and knowledge of sustainable development to gain more insights into consumers' emotions and behaviour related to ecologically friendly products. Finally, comparative research could be conducted in order to find out how emotional, ethical and cognitive processes function in different consumer groups and contexts.

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