Exploring the Antecedents of Green Branding and Their Effect on Brand Loyalty

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Abstract

In today's business landscape, sustainability plays a crucial role in shaping consumer preferences and brand perceptions. With more customers preferring eco-friendly products, companies understand the need to integrate green branding as a strategy for brand differentiation and creating competitive advantage. While many brands claim to be eco-friendly, some engage in misleading practices. This study examines how consumers perceive green branding efforts of organizations especially in the Apparel industry and aims to explore the factors that leads to Green-branding success .The study integrates multiple variables—such as Green Brand Image, Green Brand Transparency, and Green Brand Innovation—to comprehensively analyze how different aspects of green branding influence brand loyalty. This study follows a quantitative approach by collecting data from 305 respondents in Kerala. After analysing the data using the statistical software JAMOVI.2.3.28., it was found that there is a positive correlation between the Green-branding trends and brand-loyalty and how the green brand image, green transparency and green innovations contributes to long-term consumer commitment and loyalty. The study is particularly relevant during this era where sustainability provides a competitive edge to many companies and marketers strives to build brand loyalty through green marketing.

Keywords: Green branding, Trust, Transparency, Brand image, Brand innovation, Brand loyalty, Sustainability, Green Marketing.

INTRODUCTION

In recent years, sustainability has become a central focus in the business world, influencing corporate strategies and consumer behavior alike. As environmental concerns such as climate change, pollution, and resource depletion continue to rise, businesses are under increasing pressure to adopt sustainable practices. In response, many companies have integrated green branding into their marketing strategies, positioning themselves as environmentally responsible brands to attract and retain consumers.

Green branding is a set of perceptions of a brand in a consumer's mind that is linked to environmental commitments and concerns, Chen (2010). More consumers are showing increasing interest in products that are environmentally friendly even if they are more expensive (Manaktola & Jauhari, 2007) and are willing to pay premium for green brands (Shrum et al., 1995). Moreover, many consumers today are favouring brands that align with their values and demonstrate a commitment to sustainability and use green products to demonstrate their environmentally conscious behavior (Hartmann & Apaolaza-Ibáñez, 2012).

Also , green brands may hold a competitive advantage over non-green rivals (Vandermerwe & Oliff, 1990).This shift has made green branding a key differentiator in competitive markets, influencing not only brand perception but also consumer loyalty.

Brand loyalty, traditionally built on product quality, pricing, and customer service, is now being shaped by sustainability initiatives. Consumers are more likely to remain loyal to brands that authentically promote environmental responsibility and take tangible actions toward sustainability, Gupta & Ogden (2009). However, the growing trend of greenwashing, where companies exaggerate or falsely claim eco-friendly practices, has led to skepticism, making it essential for businesses to ensure transparency and credibility in their green branding efforts.

1.1 Relevance and Scope of the Study

Despite the increasing adoption of green branding, its direct impact on brand loyalty remains a critical area of research. Understanding how consumers respond to green branding strategies, what factors drive their trust and loyalty, and how businesses can optimize their sustainability efforts is essential for long-term success. This study aims to explore the antecedents of green branding and examine their influence on consumer loyalty, providing valuable insights for businesses looking to establish strong, sustainable brand identities. By analyzing key factors that influence consumer trust and engagement with green brands, this research seeks to provide insights into how businesses can effectively leverage sustainability as a powerful tool for building lasting brand loyalty.

The scope of this study focuses on analysing consumer perceptions and behaviours related to green branding, with a particular emphasis on its impact on brand loyalty. It explores key factors such as green brand image, transparency, and trust in sustainability claims, brand innovation and their role in fostering repeat purchases and brand commitment. The research primarily examines apparel industry where green branding is highly influential through consumer surveys, and industry reports.

Overall, this study aims to evaluate the effectiveness of green branding in building brand loyalty and provide strategic recommendations for businesses to develop credible, impactful, and authentic sustainability initiatives that strengthen long-term consumer relationships.

1.2 Brief theoretical construct related to the problem

To understand the impact of green branding trends on brand loyalty, recent theories in sustainability marketing, consumer trust and transparency, and innovation adoption provide valuable insights. The Green Brand Equity Model by Chen and Chang (2013) extends the traditional brand equity framework by incorporating green brand image, green trust, and green perceived value. According to this model, consumers evaluate brands based on their environmental practices, and those with authentic green credentials—such as sustainable sourcing and eco-friendly packaging—tend to foster stronger trust, which in turn enhances brand loyalty and encourages repeat purchases. The Sustainable Consumption Behavior Theory developed by White, Habib, and Hardisty (2019) explores how psychological drivers, social norms, and environmental values influence consumer decisions. It suggests that consumers are more loyal to brands that reflect their ethical and environmental beliefs. Brands that communicate their sustainability initiatives openly and transparently are more likely to develop stronger consumer relationships and long-term loyalty.

The Stimulus-Organism-Behavior-Consequence (SOBC) framework also provides valuable insights to green marketing where an individual's internal motivations are connected to the broader consequences of actions. As stated by Uikeya,et al. (2025), SOBC framework helps to analyze how green transparency and green innovations which acts as Stimulus, affects brand image which is the Organism, leading to the

Behaviour called brand loyalty and ultimately leading to the repurchase intention which is the Consequence. The Green Innovation Diffusion Model by Papadas et al. (2019) combines innovation diffusion theory with green marketing, explaining that consumers are more likely to adopt and remain loyal to brands that consistently innovate and deliver environmentally friendly products. These models together demonstrate that genuine sustainability efforts, combined with technological advancement, are key drivers of green consumer behavior and long-term brand loyalty.

1.3 An Overview of Earlier Studies
1.3.1 Green Branding Trends and Loyalty
Green brand image

With increasing environmental concerns, lot of studies emphasizes on how a brand's green image influences consumer behaviour, especially among younger, environmentally-conscious generations. Watson et al. (2024) studied the impact of green brand image on brand loyalty green brand image mediates the relationship between environmental attitudes and loyalty, suggesting that brands perceived as environmentally committed are more likely to foster consumer loyalty. In a similar study, Lin et al. (2017)examined how customers' perceptions of functional and emotional benefits associated with green brands contribute to the formation of green brand image and its influence on brand loyalty. The role of green brand image in enhancing loyalty is further reinforced by a study done in electronics and IT brands by Hussain, K., & Waheed, A. (2016) who stated that green brand image plays a major role in fostering green brand trust, attachment, and commitment. Ha, Minh-Tri (2022) researched on the impact of greenwashing on green brand equity and explored the mediating role of Green Brand Image, Green Satisfaction, and Green Trust in the relationship.

Green brand transparency

The study of Kim & Han (2014) states that clear and honest communication about sustainability enhances consumer trust and brand loyalty. According to the study brands that use transparent messaging, avoid greenwashing, and provide measurable sustainability goals are more successful in retaining customers. This is further reinforced by Ha & Janda (2014) who stated that green trust is a key determinant of consumer loyalty in sustainable brands and that transparency in green claims, third-party certifications, and customer engagement in sustainability efforts enhance consumer confidence. Jin Baek Kim (2012)also researched on the green brands operating in e-commerce and found that that consumer trust in online brands significantly influences first-time purchase decisions and future loyalty which further emphasizes the importance of credibility and sustainability transparency. The role of transparency is also evident in the study done by Ha & Janda (2014) which stated that transparency in green claims, third-party certifications, and customer engagement in sustainability efforts enhance consumer confidence and that green trust is a key determinant of consumer loyalty in sustainable brands. So it can be concluded that to meet rising consumer expectations, brands must provide precise information in their environmental claims, (Uikey & Baber, 2023).

Green brand innovation

Numerous research supports the fact that organizations investing in innovations in the form of sustainable product improvements, carbon reduction strategies, and circular economy models enhance their credibility. Chen & Chang (2013) observed that consumers prefer brands that consistently innovate and introduce new green solutions and found that green innovation positively impacts consumer trust and brand loyalty. Liu et al. (2020) supported this argument and found that consumer perception of green

brand innovation influences trust and brand loyalty and hence brands are required to highlight their sustainability innovations. Papadas et al. (2019) also observed that green innovation creates a competitive advantage and strengthens consumer loyalty. Tanjung et al. (2025) investigated the influence of green brand innovation, perceived value, and trust on brand loyalty among Uniqlo consumers in Indonesia, with green satisfaction as a mediating factor and found a positive impact.

Other studies related to Green Branding

Kumar et al. (2019) studied on how green branding influences consumer purchase intentions in the fast-moving consumer goods (FMCG) sector in India and found that green branding significantly boosts consumer trust and preference, especially when sustainability is communicated clearly and consistently. The study of Ha, Minh-Tri (2022) on the the impact of greenwashing on green brand equity stressed on the Mediating Role of Green Brand Image, Green Satisfaction, and Green Trust, and the Moderating Role of Green Concern in th relationship. Singh and Verma (2020) examined how sustainability campaigns affect green purchase behavior within the FMCG sector and explored how elements like green packaging, eco-friendly ingredients,visual clues and transparency influence buyer decisions through customer perception and trust. The study of Goh and Balaji (2017) explored the influence of green brand personality on consumer purchase behavior in Singapore by surveying 700 consumers to analyze how a well-defined green brand personality with traits like sincerity, responsibility, and competence influence consumer trust and purchase intention.

Even though there are many researches done on green -branding, there is a dearth of empirical studies relating to green-branding trends and its effect on brand loyalty especially in apparel industry. As the apparel industry is evolving focusing on sustainability, ethical sourcing, and eco-friendly production, this study is relevant in exploring the antecedents of green branding and its effect on brand loyalty.

The study addresses the following research questions:

How do consumers in the apparel industry perceive green branding efforts by organizations, and what factors influence their perception?

What is the relationship between green brand image, brand transparency, and brand innovation on consumer brand loyalty in the context of sustainable apparel brands?

To what extent do green branding strategies contribute to long-term consumer commitment and loyalty among eco-conscious consumers in Kerala?

Based on the above questions, the following objectives were framed:

- To explore the factors contributing to Green Branding trends in apparel industry.
- To analyse the impact of Green Brand Image on Brand Loyalty
- To assess the role of Brand Transparency in shaping Brand Loyalty
- To evaluate the influence of Green Brand Innovation on Brand Loyalty

The Dependent Variable is Brand Loyalty which refers to the extent to which consumers consistently purchase products from a particular brand and maintain a positive association with it over time. In this study, brand loyalty is measured through repeat purchases, positive word-of mouth and emotional connection. The Independent Variables are Green Brand Image, Green Brand Transparency and Green Brand Innovation. Green Brand Image refers to how consumers perceive a brand's commitment to environmental sustainability which includes aspects such as eco-friendly product claims, sustainability certifications, and the company's overall reputation for environmental responsibility. This is based on the definition by (Chen, 2010). Green Brand Transparency refers to the openness of the brand in sharing

detailed and credible information regarding its environmental practices and sustainability efforts, (Chen & Chang, 2013). In apparel industry, transparency refers to a brand's openness and honesty in communicating its sustainable sourcing, production practices, labor policies, and environmental impact. Green brand innovation refers to a brand's ability to develop and implement sustainable and eco-friendly solutions and contribute to a firm's green image and competitiveness (Chen, 2008). In the apparel industry, green innovation refers to using eco-friendly materials, sustainable production methods, and recyclable packaging to reduce environmental impact throughout the product's life cycle

Figure:1 Research Model
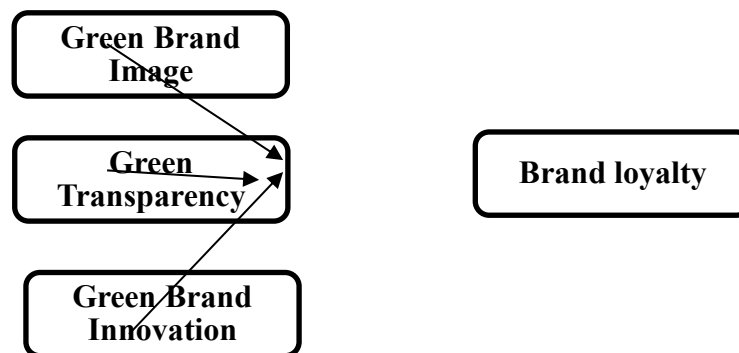
2. MATERIAL AND METHODS

Under the descriptive and quantitative research approach, the study utilized a cross-sectional research design to explore the green branding trends and their influence on brand loyalty in apparel industry. This design is appropriate for analyzing the relationship between green branding strategies and brand loyalty, as it enables an examination of consumer attitudes, preferences, and purchasing decisions within a defined timeframe. The sampling design used in the study is convenience sampling and the target population is respondents who have been exposed to green branding initiatives or have shown interest in eco-friendly products and sustainable brands. The sample size for this study is 305 respondents from the state of Kerala and belong to different genders, age groups, and socioeconomic categories, forming a diverse target population..

The collected data was analyzed using statistical software tools such as JAMOVI 2.3.28 and Microsoft Excel. Various statistical tools such as correlation analysis, regression analysis, T-test and analysis of variance (ANOVA) were used to examine the relationships between variables and test the hypothesis. Descriptive statistics was used to summarize the characteristics of the sample and the variables of interest.

3. RESULTS AND DISCUSSION

3.1 Demographics

The respondents were diverse with 152 females and 153 males. This distribution is nearly equal, with males making up 50.2% and females accounting for 49.8% of the total respondents. This confirms that both genders are almost equally represented in the sample, ensuring a balanced perspective in the study. Among the 305 participants, the majority (198 individuals, 64.9%) belong to the 21-30 age group. The next significant category is respondents below 20 years old, comprising 68 individuals (22.3%). Those aged 31-40 represent a smaller portion, with 35 respondents (11.5%), while only 4 individuals (1.3%) are

aged 41 and above. The cumulative percentage highlights that 76.4% of the respondents are aged 30 or below, indicating a predominantly younger demographic in the study. Regarding the occupations of respondents, of the total, 6 individuals (2.0%) were business owners, 56 individuals (18.4%) were employed, 237 individuals (77.7%) were students, and 6 individuals (2.0%) were unemployed. This indicates that the vast majority of respondents, 98.0%, were either students or employed, while the remaining 2.0% were unemployed.

3.2 Green Branding influences

3.2.1 Analysis of Awareness of the Concept Green Branding among the Respondents

Table 1: Awareness Of Green Branding Frequencies

Are you aware of the concept of green branding?			
Are you aware of the concept of green branding?	**Counts**	**% of Total**	**Cumulative %**
No	8	2.6%	2.6%
Yes	297	97.4%	100.0%

Source – Primary Data

Interpretation

From the above table, the cumulative percentage confirms that all respondents fall within these two categories, with an overwhelming proportion showing awareness. This high level of awareness suggests that green branding is a widely recognized concept among the target population, which could positively influence their attitudes and behaviors toward environmentally responsible brands. It also implies that further analysis of green brand image, trust, and innovations is likely to be well-informed by the respondents' existing knowledge base.

3.2.2 Analysis of Eco-Friendly Branding Influence on Purchase Behavior among the Respondents

Table 2: Eco-Friendly Branding Influence on Purchase Behavior

Have you ever purchased a product because of its eco-friendly branding?	Counts	% of Total	Cumulative%
No	16	5.2%	5.2%
Yes	289	94.8%	100.0%

Source – Primary Data

Interpretation

This finding highlights the significant impact of green branding on consumer purchase decisions, suggesting that the majority of respondents are not only aware of green branding but are also actively influenced by it in their buying behavior. This strong positive response underscores the effectiveness of eco-friendly branding strategies in motivating consumer action and promoting sustainable consumption.

3.2.3 Analysis of Sources of Awareness About Green Branding Among the Respondents

Table 3: Sources of Awareness About Green Branding

How did you learn about green branding?	Counts	% of Total	Cumulative %

Advertisements	37	12.1%	12.1%
Word of Mouth	101	33.1%	45.2%
Social-Media	146	47.9%	93.1%
News Articles	21	6.9%	100.0%

Source – Primary Data

Interpretation

The cumulative percentage shows that 93.1% of respondents learned about green branding through the first three sources, with the remaining 6.9% learning from the fourth source. This distribution suggests that certain channels or methods of communication—particularly the one represented by option 1—are significantly more effective in disseminating information about green branding. These insights can help marketers and policymakers understand which platforms are most impactful for raising awareness and promoting eco-friendly branding initiatives.

3.3. Reliability Analysis

Reliability analysis is a statistical method that assesses the consistency and stability of a measure or scale.

Table 4: Reliability Analysis of the Questionnaire

Scale Reliability Statistics	
	Cronbach's α
Scale	0.717

Source – Primary Data

Interpretation

A Cronbach's α value of 0.717 indicates an acceptable level of internal consistency reliability for the scale being measured. This suggests that the items within the scale are reasonably correlated and measure the same underlying construct to a satisfactory degree. While not as high as 0.870 (which would indicate strong reliability), a value above 0.7 is generally considered acceptable in social science research. In practical terms, this means that the questionnaire items are sufficiently consistent to yield reliable results, making the scale suitable for further analysis and interpretation in the context of the study.

3.4 . Analysis on the Descriptives of the Variables among the Respondents

Table 5: Descriptives of Major Variables under Study

Descriptive of Major Variables under Study				
	Green Brand Image	**Green Brand Transparency**	**Green Brand Innovations**	**Brand Loyalty**
N	305	305	305	305
Mean	3.66	3.84	3.91	3.93
Median	3.67	3.67	3.67	4.00
Standard deviation	0.529	0.543	0.447	0.438
Minimum	2.00	1.67	3.00	2.33

| Maximum | 5.00 | 5.00 | 5.00 | 5.00 |

- Green Brand Image: The mean score is 3.66, indicating that respondents generally have a moderately positive perception of the brand's eco-friendly image. The scores range from 2.00 to 5.00, showing that while some respondents view the green brand image less favorably, others rate it highly. The standard deviation of 0.529 reflects moderate variability in perceptions.
- Green Brand Transparency The mean score is 3.84, suggesting that respondents typically have a high level of trust in the brand. The values range from 1.67 to 5.00, indicating that while most respondents trust the brand, there are some who exhibit lower trust levels. The standard deviation of 0.543 also indicates a moderate spread in trust levels.
- Green Brand Innovations: With a mean score of 3.91, respondents perceive the brand's green innovations favorably. The narrower range of 3.00 to 5.00 and a lower standard deviation of 0.447 suggest that most respondents consistently rate the brand highly in terms of environmental innovation, with less variation in responses compared to other constructs.
- Brand Loyalty: The highest mean of 3.93 implies that respondents are generally loyal to the brand. The scores range from 2.33 to 5.00, indicating a moderately wide spread, though the standard deviation of 0.438 shows relatively low variability, suggesting a consistent pattern of brand loyalty among most respondents.

Overall, these findings highlight a generally positive perception among respondents across all four dimensions. The apparel brands appear to be well-regarded for its green initiatives, trusted by consumers, and capable of maintaining strong loyalty. However, the presence of some variability indicates opportunities for further strengthening brand image and trust to achieve more uniformly high perceptions across the entire customer base.

From the above discussion, the factors contributing to Green Branding are identified as Green Brand Image, Green Brand Transparency, and Green Brand Innovation

3.5 Inferential Analysis

In this analysis we consider the 305 responses to find the relationship and impact between the variables. Different analysis such as the correlation, regression analysis were being done.

3.5.1. Correlation Analysis

Table 6: Correlation between the Independent and Dependent Variables.

Correlation Matrix					
		Green Brand Image	Green Brand Transparency	Green Brand Innovations	Brand Loyalty
Green Brand Image	**Pearson's r**	—			
	Df	—			
	p-value	—			
Green Brand Transparency	**Pearson's r**	0.408	—		
	Df	303	—		
	p-value	<.001	—		

Green Brand Innovations	**Pearson's r**	0.405	0.130	—	
	Df	303	303	—	
	p-value	<.001	0.024	—	
Brand Loyalty	**Pearson's r**	0.632	0.309	0.502	—
	Df	303	303	303	—
	p-value	<.001	<.001	<.001	—

Source – Primary Data

Correlation Coefficients

- Brand Loyalty and Green Brand Image: The correlation coefficient (Pearson's r = 0.632) indicates a strong positive correlation between Green Brand Image and Brand Loyalty. This suggests that consumers who perceive a brand as environmentally friendly are significantly more likely to remain loyal to that brand.
- Brand Loyalty and Green Brand Innovations: The correlation coefficient (r = 0.502) shows a moderate to strong positive correlation. This implies that when consumers recognize a brand's eco-friendly innovations, their loyalty towards that brand increases notably.
- Brand Loyalty and Brand Transparency: The correlation coefficient (r = 0.309) indicates a moderate positive correlation. This means that as consumer trust and transparency in a brand increases, their loyalty also tends to increase, though not as strongly as with brand image or innovation.

Statistical Significance and inference

All the correlations with Brand Loyalty—including Green Brand Image (p < .001), Green Brand Innovations (p < .001), and Brand Transparency (p < .001)—are statistically significant, indicating that the relationships are statistically significant. Over all these results collectively suggest that the green branding elements—especially brand image and innovation—play a vital role in shaping consumer loyalty. While brand transparency also influences loyalty, its effect is relatively moderate. Therefore, companies aiming to build stronger customer relationships should focus on reinforcing their green image and showcasing innovative eco-friendly initiatives alongside fostering trust and transparency

3.5.2. Regression Analysis

Objective 2 : To analyze the impact of Green Brand Image on Brand Loyalty.
- (H_0): There is no significant impact of Green Brand Image on Brand Loyalty.
- (H_1): There is a significant impact of Green Brand Image on Brand Loyalty.

Table 7: Linear Regression Analysis of Green Brand Image on Brand Loyalty

Model Coefficients - Brand Loyalty				
Predictor	**Estimate**	**SE**	**T**	**p**
Intercept	2.015	0.1362	14.8	<.001
Green Brand Image	0.523	0.0369	14.2	<.001

Source – Primary Data

Table 8: Model Fit Measures of Green Brand Image on Brand Loyalty

Model Fit Measures		
Model	**R**	**R²**

1	0.632	0.399
Note. Models estimated using sample size of N=305		

Source – Primary Data

Model Coefficients and Model Fit Measures

The intercept of 2.015 indicates the baseline level of brand loyalty when the Green Brand Image is at zero. The coefficient of 0.523 for Green Brand Image (2) suggests that for every one-unit increase in the perception of green brand image, the brand loyalty increases by 0.523 units. The model has an R-squared value (coefficient of determination) of 0.399, shows a moderate to strong level of fit, with 39.9% of the variation in brand loyalty being accounted for by green brand image. This suggests that Green Brand Image is a meaningful and influential predictor of Brand Loyalty in the context of consumer behavior. The correlation coefficient (R) of 0.632 indicates a moderately strong positive linear relationship between Green Brand Image and Brand Loyalty.

Objective 3: To analyze the impact of Brand Trust on Brand Loyalty
- (H_0): There is no significant impact of brand trust on brand loyalty.
- (H_1): There is a significant impact of brand trust on brand loyalty.

Table 9: Linear Regression Analysis of Brand Trust on Brand Loyalty

Model Coefficients - Brand Loyalty				
Predictor	**Estimate**	**SE**	**T**	**p**
Intercept	0.424	0.1645	2.58	0.010
Brand Trust	0.949	0.0444	21.39	<.001

Table 10: Model Fit Measures of Brand Trust on Brand Loyalty

Model Fit Measures		
Model	**R**	**R^2**
1	0.776	0.602
Note. Models estimated using sample size of N=305		

Model Coefficients and Model Fit measures

The intercept value of 0.424 indicates the estimated level of brand loyalty when brand trust is zero. The coefficient for Brand Trust is 0.949, which implies that for every one-unit increase in brand trust, brand loyalty is expected to increase by 0.949 units, assuming other factors remain constant. The t-value of 21.39 and the p-value less than 0.001 indicate that the effect of brand trust on brand loyalty is highly statistically significant, providing strong evidence that brand trust is a key predictor of brand loyalty. The model has an R-squared value (R^2) of 0.602, which indicates that approximately 60.2% of the variance in the Brand Loyalty)is explained by the independent variable Brand Transparency. The correlation coefficient (R) is 0.776, suggesting a strong positive linear relationship between brand trust and brand loyalty.

The relatively high R^2 value demonstrates that brand trust explains a substantial proportion of the variation in brand loyalty, indicating a well-fitting model.While other factors may also influence brand loyalty, brand transparency clearly plays a statistically significant and impactful role in driving loyalty among the sample of 305 respondents.

Objective 4: To analyze the impact of green brand innovation on brand loyalty.

- (H_0): There is no significant impact of green brand innovation on brand loyalty.
- (H_1): There is a significant impact of green brand innovation on brand loyalty.

Table 11: Linear Regression Analysis of Green Brand Innovation on Brand Loyalty

Model Coefficients - Brand Loyalty				
Predictor	Estimate	SE	T	P
Intercept	2.003	0.1917	10.4	<.001
Green Brand Innovations	0.492	0.0487	10.1	<.001

Table 12: Model Fit Measures of Green Brand Innovation on Brand Loyalty

Model Fit Measures		
Model	R	R^2
1	0.502	0.252
Note. Models estimated using sample size of N=305		

Model Coefficients and Model Fit Measures

The intercept (2.003) represents the predicted value of brand loyalty when the score for green brand innovation is zero. The coefficient indicates that for every one-unit increase in the perception of green brand innovation, brand loyalty increases by 0.492 units. The t-value of 10.1 and the p-value < .001 indicate that this effect is statistically significant at the 1% level. The model has an R-squared (R^2) value of 0.252, which means that approximately 25.2% of the variance in the dependent variable, brand loyalty, is explained by the independent variable, green brand innovation. The correlation coefficient (R) of 0.502 indicates a moderate positive linear relationship between green brand innovation and brand loyalty. The model demonstrates a moderate level of fit, explaining 25.2% of the variation in brand loyalty due to green brand innovation. The positive R value indicates that as perceptions of green brand innovation increase, brand loyalty also tends to increase. This supports the earlier regression analysis which showed a statistically significant and positive relationship between the two variables.

3.5.3 Discussion and Implication of Results

From the literature review, the antecedents of Green Branding are identified as Green Brand Image, Green Brand Transparency, and Green Brand Innovation. The correlation and regression analysis indicates that all the four factors significantly contribute to building brand loyalty in apparel industry. The first findings of inferential analysis suggest that Green Brand Image positively and significantly impacts Brand Loyalty. Consumers who perceive a brand as environmentally conscious are more inclined to remain loyal. Therefore, brands in men's apparel should focus on developing and communicating a strong green image. This could involve using sustainable materials, showcasing eco-friendly initiatives, and obtaining certifications that reinforce environmental responsibility. By strengthening their green brand image, companies can build deeper loyalty and long-term consumer relationships.

The second findings indicate that Brand Trust also has a significant impact on Brand Loyalty, though the influence is less than that of green brand image or innovation. Building and maintaining trust should still be a strategic priority. Brands can enhance trust by ensuring transparency in product claims, delivering consistent quality, and providing reliable after-sales service. Incorporating social proof such as customer reviews, third-party endorsements, and responsive customer support can further bolster trust and, in turn, encourage loyalty.

The third findings show that Green Brand Innovation significantly influences Brand Loyalty. Brands that

demonstrate commitment to sustainability through innovative eco-friendly practices are more likely to retain loyal customers. Businesses should invest in product innovation, such as using biodegradable packaging, offering recycling programs, or integrating energy-efficient production techniques. Communicating these efforts clearly through marketing can help consumers recognize and reward innovation with loyalty.

Suggestions and scope for future research

Based on the findings of this research, several actionable recommendations are proposed to strengthen green branding and foster greater brand loyalty. To enhance Green Brand Image, companies should consistently communicate their sustainability goals and achievements across platforms, adopt eco-friendly packaging and ethical sourcing, and collaborate with environmental organizations to build credibility. Driving Green Innovation is equally vital—this involves developing eco-conscious products, using recycled or biodegradable materials, and promoting internal green practices to educate consumers. Building and maintaining Brand Trust requires transparency in sustainability claims, showcasing third-party certifications and customer testimonials, and offering consumer-friendly policies that reflect integrity. Personalized, sustainable marketing can further reinforce brand loyalty by leveraging consumer data to align green promotions with individual values and employing low-impact digital marketing tools. Educating consumers through awareness campaigns, interactive digital tags, and eco-challenges can deepen engagement and understanding of environmental impacts. Finally, creating a continuous feedback and innovation loop—through surveys, forums, and adapting to emerging green technologies—will help companies stay responsive to consumer expectations and ahead in the sustainability curve.

While this study provides valuable insights into the relationship between green branding strategies and brand loyalty within the apparel industry in Kerala, several avenues remain open for further investigation. Future research could explore these dynamics across different geographic regions and cultural contexts to assess the generalizability of the findings. Additionally, incorporating qualitative methods such as in-depth interviews or focus groups may provide deeper insights into consumer motivations and perceptions. Longitudinal studies could also be conducted to examine how green branding influences loyalty over time. Expanding the scope to include other sectors, such as electronics or personal care, would further enrich the understanding of green branding effectiveness across industries. Also incorporating other variables and dimensions like green brand positioning, green brand knowledge and attitude and green perceived value can be incorporated to understand the intricate aspects contributing to green brand loyalty.

Conclusion

This study reinforces the importance of environmentally conscious branding in fostering long-term brand loyalty among consumers in apparel industry and provides empirical evidences for the evolving relationship between sustainable branding practices and customer loyalty. Several inferences can be drawn based on the findings :

Firstly, the study confirms that green branding plays a crucial role in shaping consumer perceptions and influencing brand loyalty. As sustainability becomes an increasingly important consideration for consumers, brands that projects a green brand image by adopting eco-friendly practices and genuinely communicate their commitment to sustainability tend to build stronger emotional connections with their audience. The positive correlation between green branding trends and brand loyalty indicates that consumers are more likely to remain loyal to brands that are environmental responsible, maintain transparency in sustainability initiatives and constantly strive for eco-friendly innovations .

The findings also suggest that elements such as eco-labeling, sustainable packaging, green messaging, and

corporate social responsibility initiatives significantly enhance brand trust and credibility. When customers perceive that a brand genuinely cares for the environment, they are more likely to develop a sense of trust, which in turn reinforces their loyalty. This demonstrates that green branding is not merely a trend but a strategic approach to securing long-term customer relationships.

Moreover, the study found that demographic factors such as age, gender, and income levels may influence the degree of responsiveness to green branding. Younger consumers, in particular, appear to be more environmentally conscious and are more inclined to support sustainable brands. This insight enables marketers to tailor green branding efforts to resonate more effectively with specific target segments.

While the study provides meaningful insights, future research should consider expanding the sample size, exploring industry-specific implications, and evaluating the long-term impact of green branding strategies on customer retention and advocacy. Additionally, investigating how transparency, greenwashing perceptions, and third-party certifications influence consumer trust would add further depth to the understanding of green brand loyalty.

Overall, the findings of this study emphasize the value of sustainable practices in brand identity. By embracing green branding, businesses can boost loyalty, brand equity, and positively impact society and the planet.

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