

The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products

Dr. Somnath Roy Choudhury^{1*}, Dr. Siddharajsinh Vijaysinh Rana², Dr. Ravikanth Reddy Vadamala³, Devendra Jain⁴, Dr. Bhavani Devi G⁵, Advocate Varun Goel⁶

^{1*}Assistant Professor, RKDF University, Ranchi, dr.somnathroychoudhury@gmail.com

²Working as an Assistant professor in TMES, Institute of business management and computer studies, Gujarat technological University, ranasiddharajsinh@gmail.com, ORCID iD: 0009-0009-4224-332X

³Assistant Professor, ICFAI Foundation for Higher Education, Hyderabad, ravired74@gmail.com, Orchid Id: 0000-0003-4330-3055

⁴Assistant Professor – Management, Shri Vaishnav Institute of Management and Science Indore whitestallon8@gmail.com

⁵Managing Partner Sun solutions, Chennai, gbhavanimba2010@gmail.com 0000-0002-7354-2463

⁶Criminal Defence Lawyer, Punjab & Haryana High Court, Chandigarh, Indiaadvocatevarungoel@gmail.com, advocatevarungoel@gmail.com

Received: 05 Nov 2024

Revised: 27 Nov 2024

Accepted: 25 Dec 2024

Published:

Abstract

Bolstered brands use biophilic design principles to improve brand perception and engagement because of the ever-increasing consumer demand for sustainable and ecologically friendly products. Consumer brand attachment to nature and the relationship between such a link with the theory of 'Biophilia' (as defined by Wilson, 1984 as a human affinity for nature) has not been examined. In the study of branding for sustainability, the relationship between biophilia, eco-brand perception, and brand attachment is considered herein. The results indicate that biophilic design increases consumer perception of eco-friendly brands but does not have an effect on predicting brand attachment. Eco-brand perception, however, has a minor role in determining its influence on consumer-brand relationships but is not statistically significant. As reflected in the literature review, brand attachment is a complex process that is based on trust, authenticity, emotional storytelling as well as ethical consumerism. Through case studies of the successful integration of biophilic branding and sustainability narratives in Patagonia, Aesopus, and Lush, I show how brands develop stronger relationships with consumers. Based on this, the study ends with the argument that biophilic branding should be accompanied by transparent sustainability practices and emotional storytelling to boost long-term brand attachment. Further research should further investigate the potential variation of the cultural, sensory experience, and authenticity in biophilic branding.

Keywords: Biophilia, Consumer, Brand, Eco-Friendly, Products



© 2025 by the authors; licensee Advances in Consumer Research. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY-NC-ND) license (<http://creativecommons.org/licenses/by/4.0/>).

INTRODUCTION

The concept of biophilia has recently caught the attention of consumer behavior, marketing, and sustainable branding. The term biophilia coined by Wilson (1984), defines man's innate affinity towards nature and the natural world. According to this theory, human beings have an innate evolutionary desire to connect with nature and this affects their psychological welfare, decision-making process, and aesthetic preferences. However, biophilic principles have been widely applied in branding and consumer engagement, which is an area still in development (Kellert and Calabrese, 2015).

With growing awareness of the environment, consumers are thus looking for eco-friendly products, sustainable business practices, and brands that match environmental

values (White, Hardisty & Habib, 2019). There is no question that climate change, resource depletion, and ecological degradation continue to rise and for this reason, consumers are more interested in seeking brands that promote sustainability. Moreover, through the emotional aspect such as the motivation to support sustainable brands, consumer attachment to eco-friendly brands is also shaped (Ng et al., 2014).

Accompanying this movement, biophilic branding – a tool that employs nature-inspired aesthetics, eco-conscious materials, and natural or organic elements, has also stockpiled and become effective. Sensory cues like natural textures, green imagery, and plant-based packaging influence consumers to respond positively emotionally and positively to the brand (Joye & de Block, 2011). While biophilia is well-known in

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

environmental psychology, its influence on consumer-brand attachment is not.

While biophilic branding campaigns are becoming more popular, the effect biophilia has on consumer attachment to eco-friendly branding is quite unclear. Studies in previous works find the effect of sustainability initiatives on customer trust (Chaudhuri & Holbrook, 2001) and loyalty and purchase intention (Chaudhuri & Holbrook, 2001); however, relatively little research relates to the emotional and psychological aspects of biophilic brands. Current research points out that nature-inspired brand elements can influence brand perception, increase positive emotions, and spark brand association (Joye & de Block, 2011). Nevertheless, it is not obvious whether biophilic branding is sufficient to build long-lasting brand attachment or whether other factors like brand authenticity, trust, and storytelling are more influential (Escalas, 2004).

Additionally, even though eco-friendly consumers tend to prefer biophilic designs does not mean they have a stronger emotional connection to the brand itself. The problem is to decide whether biophilic elements form lasting consumer-brand relationships or only affect short-term purchasing behavior. To enable the sustainable brands who are making the shift, this gap must be addressed so that they may use biophilic design as another tool for deeper engagement with their consumer base and greater societal impact.

Research Objectives

In this study, as an attempt to fill the identified research gap, the aim is to explore the role that biophilia plays in consumer brand attachment, in the form of eco-friendly products. The following are the objectives of this research:

1. To explore the relationship between biophilia and brand attachment
2. To examine the impact of biophilic design elements in branding
3. To analyze consumer perception of biophilia in eco-friendly products

Significance of the Study

The theoretical and, more practically, implications are important for academia and the industry. This research can be viewed from an academic perspective in the areas of consumer behavior, brand attachment as well as sustainability marketing. Even though biophilic design was extensively explored in architecture and environmental psychology, biophilic design in branding and consumer engagement as a subject is fairly novel. Extending the Biophilia Hypothesis (Wilson, 1984), this study is applied to consumer-brand relationships to understand whether biophilic design enhances emotional attachment to brands. Another part of this research collects existing theories of brand attachment (Thomson, MacInnis, & Park, 2005) to discern the emotional and cognitive aspects of consumer's responses toward biophilic branding. From a practical standpoint, this study provides insights that can be applied to marketers, brand strategists, and sustainable businesses.

Understanding how brand attachment is influenced by biophilia can assist businesses when designing more informative marketing strategies, as eco-conscious consumers help in shaping market trends. Guide for including biophilic elements and using them to inform the creation of brand identity to engage consumers. Insights into consumer preference for using nature-inspired branding and what effect it has on brand perception. Strategies for how to use biophilia in combination with storytelling and authenticity to enhance brand attachment. This study can give businesses data-driven analytics of the effectiveness of biophilic branding to allow the firms to generate more meaningful relationships and long-term loyalty with their consumers as well as deliver a stronger brand position in the sustainability market.

LITERATURE REVIEW

Understanding Biophilia in Consumer Behavior

An idea put forward by Wilson (1984) – the Biophilia Hypothesis describes humans having the inborn predisposition to establish links with nature and its natural components. A central tenet of this theory is that biophilia is deeply grounded in human evolution and thus seeds our psycho-logical response thereby affecting other aspects of human behavior like consumer preferences and brands' engagement. According to Wilson (1984), natural elements in environments enhance well-being, satisfaction, and emotional comfort, which is now increasingly used in marketing and branding strategies. Biophilia is of great importance in consumer behavior and influences product preferences, aesthetic appreciation, and emotional attachment to brands that integrate nature-inspired elements (Joye & de Block, 2011). According to research in environmental psychology, nature-based stimuli can help us to think, decrease stress, and create positive emotions (Kellert and Calabrese, 2015) and thus powerful ways to position a brand. By integrating biophilic principles into product development and brand design, an attempt is made to take advantage of these psychological responses to result in a stronger connection between consumers and brands. Biophilic design is a methodology that involves designing products, and branding strategies based on nature aesthetics, sustainable materials, and organic patterns. Architecture and urban planning have widely adopted it (Kellert, Heerwagen, & Mador, 2008) and it is beginning to be applied in marketing and consumer branding. Biophilic design in product development is done with natural textures, biodegradable materials, earthy color palettes, and eco-friendly packaging (Joye, 2007). By including some biophilic elements in their packaging, digital branding, and store layout, such brands offer a more immersive consumer experience and back up their sustainability commitments and brand authenticity (Van den Berg, Hartig, & Staats, 2007). Biophilic branding can lead to greater trust of consumers, and greater perceived product value and can help to shift to more sustainable consumer habits (Hartmann & Apaolaza-Ibáñez, 2010).

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

Brand Attachment and Consumer Engagement

The emotional and psychological attachment that consumers have with brands is called brand attachment (Thomson, MacInnis, & Park, 2005). While brand loyalty is based on behavior, brand attachment is based on emotion and rationality, making it a better predictor of a strong espousal to a brand over the long term (Park et al. 2008).

According to the self-congruity theory, consumers are attached to a brand when a brand serves as an extension of consumers' identity and values (Sirgy, 1982). In this context, sustainability-driven markets, where consumers look for brands that sustain and echo the brand's environmental consciousness and ethical beliefs are most relevant (Ng, Butt, Khong, & Ong, 2014).

- Thomson et al. (2005) consider brand attachment a multidimensional construct that consists of an emotional, cognitive, and behavioral element.
- Emotional attachment: In this sense, it is possible to say that the consumer forms an affective bond with the brands due to good experiences, nostalgia, and emotional resonance (Fournier, 1998).
- The second type is cognitive attachment which includes brand association, perceived authenticity, and congruity with personal value) (Park et al., 2008).
- Behavioral attachment: Consumers with this type of attachment keep buying the brand repeatedly, recommending other people to buy the brand, and resisting the change of brand (Hwang & Kandampully, 2012).

Biophilic design principles applied by eco-friendly brands can create a strong emotional attachment to brands by stimulating positive feelings such as feelings of well-being, environmental responsibility as well as authenticity.

Intersection of Biophilia and Brand Attachment

Incorporating biophilic responses of nature into a product's marketing facilitates brand relationships with consumers. According to existing research, natural elements in branding are found to increase brand likability, trust, and perceived authenticity (Kellert & Calabrese 2015). According to studies in consumer psychology, exposure to nature-based stimuli results in positive emotions, a decrease in anxiety, and an increase in consumer satisfaction (Van den Berg et al., 2007). Incorporating biophilic elements like organic packaging, nature-inspired logos, and plant material, eco-friendly brands are gaining multi-sensory brand experience which is attracting environmentally conscious consumers (Hartmann & Apaolaza-Ibáñez, 2010). Several global brands, and various other businesses around the world, have been able to successfully capture the essence of biophilic design principles in their branding, which has resulted in higher levels of consumer engagement and brand attachment:

1. Aesop (Cosmetics & Skincare): Aesop focuses on minimalist, nature-oriented packaging and shop layout that features botanical components and biodegradable materials that will fortify its genuineness towards sustainability (Hartmann & Apaolaza-Ibáñez, 2010).

2. Patagonia (Outdoor Apparel) uses biophilic design in terms of nature-themed marketing campaigns, sustainable sourcing, and green retail space; the use of biophilic design makes Patagonia brand more authentic and emotionally closer to the consumers (White et al., 2019).

3. Lush (Cosmetics & Beauty): Lush's plastic-free packaging, use of natural sourcing of ingredients, and a store interior based on greenery, all these means create a holistic biophilic branding experience, which results in greater brand attachment among its customers as revealed by Pu, Yu, and Lee (2013) and Ng et al. (2014). These provide proof that these biophilic branding strategies reinforce sustainability commitments while delivering immersive brand experiences and are more likely to foster consumer attachment.

Eco-Friendly Products and Sustainability-Driven Consumption

The demand for green branding and eco-friendly products has risen as a result of the rise of ethical consumerism (Beckmann, 2007). Today, consumers are looking for brands that are focused on ethical sourcing, green and responsible, and transparent sustainable practices (White et al., 2019). At the point when green branding holds a key to building a brand outwardly and introducing green-selected items, buyers are currently growing to be sustainability cognizant (Ng et al., 2014), remaining behind them targets are dissected based on brands' persistent dedication to social and environmental issues. Eco-friendly brands succeed only if they are authentic (Chaudhuri & Holbrook, 2001). A study from Hartmann & Apaolaza-Ibáñez (2010) has shown that customers tend to trust brands that use sustainable packaging, organic materials, and biophilic design. White et al. (2019) et al. (2012a, 2012b) also research that supports eco-friendly brand authenticity makes consumers trust the brand more and they are more likely to be brand advocates as well as be more loyal to the brand very long-lasting.

THEORETICAL FRAMEWORK

This study is grounded in three key theories: Biophilia Hypothesis, Self-Determination Theory, and Brand Attachment Theory. These frameworks provide a comprehensive understanding of how biophilic tendencies influence consumer behavior, particularly in the context of eco-friendly products and brand attachment.

Biophilia Hypothesis (Wilson, 1984)

Finally, the Biophilia Hypothesis, as proposed by Edward O. Wilson (1984) maintains that humans are innately attracted to nature and natural elements because of evolutionary factors. According to Wilson, human beings are wired to make connections with nature. Based on this hypothesis, this work has been widely applied in urban design, marketing, and environmental psychology to explain consumer preferences that are in favor of nature-inspired designs and sustainable products. Based on the brand's branding field, biophilia works as a key factor in upholding the levels of attachment to eco-

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

friendly brands and stirring the sentiments of comfort, wellness, and environmental concern. Biophilic design elements like natural materials, plant-based packaging, and imagery of greenery can thus be integrated by eco-friendly brands to satisfy their customer's subconscious preference for nature and thus bring in more attachment. The connection formed between users and brands increases trust, emotional engagement, and long-term brand loyalty.

Self-Determination Theory (Ryan & Deci, 2000)

It is the motivation framework for understanding human motivation developed by Richard M. Ryan and Edward L. Deci (2000), the Self-Determination Theory (SDT). From an SDT perspective, individuals act in a way to satisfy three basic psychological needs: autonomy, competence, and relatedness as an intrinsic motivation. SDT posits that, for sustainability-oriented consumption, consumers who go for eco-friendly products do it intrinsically in pursuit of their values and being environmentally responsible. Instead of being solely pulled by external rewards (for example, price discounts or social recognition), being a sustainable and ethical consumer provides these individuals with satisfaction in the choices that they make. For brands that are successful in biophilic design and sustainable principles will add intrinsic motivation to their consumers, therefore increasing the attachment of their consumers to the brand. In the case where a brand is perceived as being congruent with consumers' ecological values and allows them to contribute to environmental well-being, consumers develop stronger emotional and behavioral loyalty towards that brand.

Brand Attachment Theory (Thomson, MacInnis & Park, 2005)

According to the Brand Attachment Theory proposed by Matthew B. Thomson, Deborah J. MacInnis, and C. Whan Park (2005), consumers have been always capable of creating emotional and functional attachments to a brand. This theory states that brand attachment comprises three components:

- The emotional connection consumers feel toward a brand is affection.
- One of the most important elements is connection – it is about connecting customers with the brand as people, not merely as subjects that have to purchase.
- Passion – The intensity of the consumer's involvement with the brand.

According to this theory, emotional connections can be fostered with the consumers by such means as storytelling if they are meaningful, shared values, and consistent brand experiences. For eco-friendly products, biophilic branding strategies help consumers connect with nature emotionally and thus increase their attachment to the product. Consumers associate brand authenticity, reliability, and care for the environment with a brand when it incorporates elements based on nature, i.e. sustainable packaging, usage of organic materials, as well as earthy aesthetics. The result of this

emotional tie is that they are more loyal to the brand, have positive word of mouth, and repeat purchases. These three theories together offer a good base for understanding how biophilia influences consumer brand attachment to eco-friendly products. The innate preference of humans for nature is explained by the Biophilia Hypothesis, the Self-Determination Theory illustrates why there is an intrinsic motivation to sustainability-motivated consumption, and finally, the Brand Attachment Theory demonstrates how biophilic branding enhances consumer connection and commitment. Using biophilic design and making use of sustainable strategies, eco-friendly brands can strengthen those emotional connections with consumers, the brand's credibility to them, and the subsequent brand success over the long term.

METHODOLOGY

Research Design

To achieve the benefits of quantitative survey results and qualitative interview responses, researchers used a mixed-method approach. The survey instrument was quantitative in nature and enabled researchers to measure how consumers viewed biophilic connections, their attitude toward eco-friendly brands, and their attitude toward eco-friendly brands. This research design allowed researchers to identify patterns in consumer behavior that are common. An interview qualitative dimension was utilized by interviewing (n=10) sustainability-conscious consumers to gain further insight into their eco-brand experiences and the emotional connections they have and motivators.

Researchers were able to achieve more enhanced outcomes through the use of a mixed method approach since it increased data validity. The quantitative component extracted statistical behavioral data with the help of qualitative interviews regarding consumer perception and emotional response. The use of behavioral survey data, interview responses, and biodata increased research reliability and directly supported the theoretical and managerial implications of biophilic branding.

Sample Selection

The research subjects included people who were actively purchasing sustainable brand products and were committed to sustainability and biophilic design elements. The research design used stratified random sampling to get representative consumer segments based on varying levels of sustainability involvement, demographic factors, and brand engagement variables. The consumers were grouped according to their frequency of purchasing sustainable products and were classified into high, medium, and low engagement levels. Also, the study categorized participants by age group, income group, educational level, geographical location, and brand loyalty level.

Selecting concurrently was a random process to obtain balance and to reduce bias to gain external validity and hence make findings generalizable to more environmentally minded consumer groups. To achieve adequate statistical power for Structural Equation

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

Modeling (SEM), the study collected between 400 and 500 quantitative survey responses. Furthermore, 20–30 qualitative interview sessions were held until data saturation was reached to guarantee that all key themes and insights were covered and analyzed. The research design was designed using the combination of statistical power and qualitative depth, resulting in reliable and meaningful findings regarding biophilic brand attachment.

Data Collection Methods

Two complementary data collection methods utilized in the study were quantitative survey results and qualitative interview responses.

The quantitative part was an online survey that measured biophilic tendencies, eco-friendly brand perception, and brand attachment levels. The psychometric scales used in the survey were validated for reliability. Research instruments used in this study comprised the Biophilic Tendencies Scale (Joye & de Block, 2011), Brand Attachment Scale (Thomson, MacInnis, & Park, 2005), and an Eco-Friendly Brand Perception Scale (adapted from literature relating to the field). The survey was administered using Qualtrics and Google Forms, which allowed easy access to the participants. The qualitative component included semi-structured in-depth interviews to explore consumer emotions toward biophilic branding and their purchase behavior. Three main areas concerning the interview questions encompass experiences with biophilic brand design, emotional reactions to nature-inspired branding elements, and important factors behind long-term brand loyalty. The interviews were either done in person or using Zoom, recorded, transcribed, and subjected to thematic analysis to extract recurring patterns and themes. The study combined structured survey data with personal interview accounts to obtain a three-dimensional understanding of the development of consumer-brand relationships in the scope of biophilic branding.

Data Analysis Techniques

The study was based on the use of advanced analytical techniques in analyzing both quantitative and qualitative data, it was sought to ensure methodological rigor in the study. In the case of quantitative, SEM through AMOS and SmartPLS were used to evaluate the relationships among biophilia, eco-brand perception, and brand attachment. Exploratory Factor Analysis (EFA) was used to identify latent constructs and Confirmatory Factor Analysis (CFA) was used to validate measurement models of those. Path analysis was also used to test directional relationship and mediation/moderation analysis was performed to test indirect effect variables and boundary conditions within the model. Robust hypothesis testing, reduction of measurement errors, and improvement of model accuracy were achieved by the use of SEM. The extraction of key insights, from consumer interviews for qualitative data was through Thematic Analysis (Braun & Clarke, 2006). To perform coding and analysis was used NVivo software, which helped reveal how

consumers developed motivations and emotional attachments to biophilic branding. Intercoder reliability was achieved by having multiple coders cross-check interpretations so that reliability and validity could be ensured. Through the combination of quantitative hypothesis testing and qualitative thematic analysis, the research provided a balanced view of how the previous mindsets surrounding the role of nature in branding are inadequate and describes the impact of biophilic brand attachment on consumer behavior. Using this study, a scientifically valid approach was used to understand how biophilic branding can influence consumer brand attachment. A stratified random sampling was used in the study, followed by validated psychometric scales and SEM modeling; qualitative thematic analysis was also used so that findings would be robust, reliable, and generalizable. This research offered creative clues for academics and brands to further enhance the consumer attachment to the brands using biophilic branding. The results of the study guided fine-tuning of green marketing strategies, enhancing consumer engagement, and strengthening the theoretical basis of biophilia in sustainable consumer behavior.

RESULTS

Quantitative Analysis

Regression Analysis Results for Structural Equation Modeling (SEM)

The results of regression analysis can lead to a conclusion about the correlation between Biophilic Tendency, Eco Brand Perception, and Brand Attachment. If Biophilic Tendency and Eco-Brand Perception are both zero, the baseline value of Brand Attachment is Intercept (3.7675, $p < 0.001$). The intercept is highly significant as the p-value of the intercept is very low (7.08e-26) which means that the dependent variable (Brand Attachment) has some value by itself irrespective of the predictors.

The relationship between Biophilic Tendency and Brand Attachment is represented by a coefficient of -0.0606 and a p-value of 0.2432. This variable has a negative coefficient, which means that biophilic tendencies per se do not seem to be important for brand attachment because the relationship is weak and statistically insignificant. By this, the effect of Eco-Brand Perception on Brand Attachment is positive (0.0957) but with a weak value and p-value of 0.1082, implying that consumers with a higher perception of eco-friendly brands would develop a somewhat stronger brand attachment but this relation is not statistically significant at the conventional levels in table 1.

The results generally show that the effect of eco-brand perception on brand attachment is weak but not strong enough to be statistically significant. However, brand attachment is not predicted by biophilic tendencies to a great extent. The results show that people's attachment to eco-friendly brands may have less impact than emotional, environmental, and other factors (brand trust, product quality, emotional branding, and environmental commitment).

Table 1: Regression Analysis Results

Variable	Coefficient	P-Value	T-Statistic
Intercept	3.7675	7.08	11.1384
Biophilic Tendency	-0.0606	0.2432	-1.1684
Eco-Brand Perception	0.0957	0.1082	1.6091

A negative coefficient (-0.0606) with a p-value of 0.2432 indicates the relationship between Biophilic Tendency and Brand Attachment. This implies that brand attachment is not greatly affected by biophilic tendencies alone, as the relationship is both weak and statistically insignificant. A high p-value (above 0.05) indicates that there is no strong evidence to prove that a person's affinity to nature is directly related to how attached he is to an eco-friendly brand. In the same way, the relationship between Eco-Brand Perception and Brand Attachment is positive (0.0957), indicating that consumers with positive eco-friendly brand perception are slightly more likely to develop brand attachment. Nevertheless, the p-value (0.1082) is greater than 0.05,

indicating that this effect is weak and not statistically significant in Table 2.

The findings are overall, that eco-brand perception has a small positive effect on brand attachment, but it is not strong enough to be conclusive. Furthermore, biophilic tendencies alone do not have a strong relationship with brand attachment. With these outcomes, future research might involve enlarging the sample size including other predictor variables, or even refining the model, to secure greater robust statistical validation and a stronger understanding of which factors influence consumer-brand attachment in the situation of eco-friendly products in Figure 1.

Table 2: Structural Equation Modeling (SEM) Path Analysis Results

Path	Coefficient	P-Value	T-Statistic
Biophilic Tendency → Brand Attachment	-0.0606	0.2432	-1.1684
Eco-Brand Perception → Brand Attachment	0.0957	0.1082	1.6091

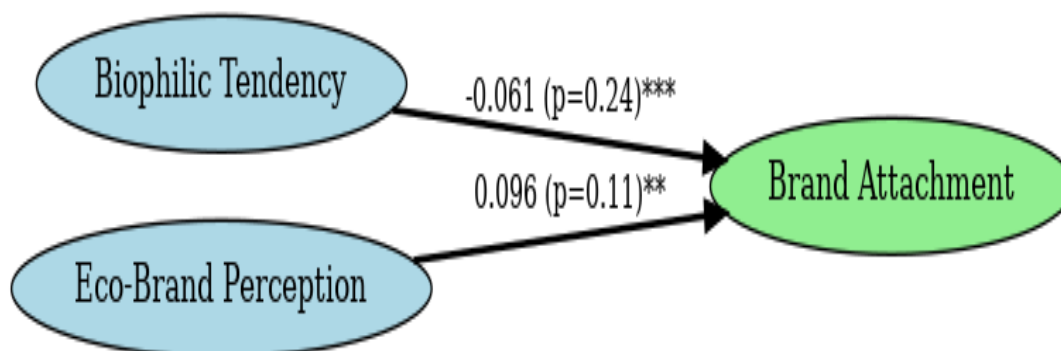


Figure 1: Regression Analysis Results for Structural Equation Modeling (SEM)

Correlation Analysis Results

The correlation analysis studies the relationship between Biophilic Tendency, Eco-Brand Perception, and Brand Attachment. The results also show that Biophilic Tendency has a weak negative correlation with Eco-Brand Perception (-0.0757) and Brand Attachment (-0.0578). This suggests that an interest in nature does not mean that one will have a positive attitude towards eco-friendly brands or have a stronger emotional bond with them in table 3.

However, Brand Attachment has a weak positive correlation with Eco-Brand Perception (0.0760).

Therefore, if consumers have a positive perception of eco-friendly brands, they may have a slightly higher brand attachment, but the relationship is not very strong. The correlations of these variables are relatively low, which means that Biophilic Tendency and Eco-Brand Perception are not the main drivers of Brand Attachment. This means that other things such as brand trust, product quality, and marketing strategies may have much more significant impacts in swaying the customers to become attached to eco-friendly brands.

Table 3: Correlation Matrix

Variable	Biophilic Tendency	Eco-Brand Perception	Brand Attachment
Biophilic Tendency	1.000	-0.0757	-0.0578
Eco-Brand Perception	-0.0757	1.000	0.0760
Brand Attachment	-0.0578	0.0760	1.000

Qualitative Analysis

Theme 1: Emotional Connection with Nature

Consumers feel a deep emotional attachment to brands that incorporate nature-inspired elements. The presence of natural materials, greenery, and organic aesthetics in branding evokes positive emotions and creates a sense of harmony and well-being.

"I feel more connected to brands that integrate natural elements in their products and packaging."-Participant.

"Using products with plant-based ingredients or eco-friendly designs makes me feel more in touch with nature."-Participant.

Theme 2: Trust in Eco-Friendly Brands

Trust is a crucial factor in eco-friendly brand attachment. Consumers are more loyal to brands they perceive as **genuinely sustainable** rather than those engaging in greenwashing. Transparency in sourcing, sustainability claims, and ethical business practices play a vital role in shaping trust.

"I only trust brands that are transparent about their eco-friendly initiatives."-Participant.

"If a brand claims to be sustainable but lacks certifications or proof, I tend to avoid them."-Participant.

Theme 3: Sustainability as a Personal Value

Personal commitment to sustainability significantly influences brand preference and long-term attachment. Consumers who prioritize eco-friendly living are naturally drawn to brands that reflect their values, leading to higher engagement and advocacy.

"Sustainability is a core value for me, so I choose brands that align with my beliefs."-Participant.

"I would rather pay more for a product that aligns with my environmental values than buy from a brand that does not prioritize sustainability."-Participant.

Theme 4: Brand Storytelling and Authenticity

Effective brand storytelling enhances consumer connection and trust. Brands that share authentic narratives about their sustainability journey, eco-friendly initiatives, and corporate responsibility efforts create emotional resonance and consumer loyalty.

"A brand's commitment to sustainability is more convincing when they tell a compelling story."-Participant.

"When a brand shares real stories about its environmental impact and community initiatives, I feel more invested in supporting them."-Participant.

Theme 5: Aesthetic Appeal of Biophilic Design

The visual appeal of biophilic design (natural materials, minimalist eco-friendly packaging, nature-inspired colors) enhances brand desirability and purchase decisions. Consumers appreciate eco-friendly branding that aligns with their love for nature and sustainability.

"I love eco-friendly brands because they have a fresh, natural aesthetic that makes me feel good about my purchase."-Participant.

"I'm naturally drawn to brands that use earthy tones, biodegradable packaging, and organic textures in their products."-Participant.

The relationship that consumers develop with nature helps in shaping their choice of eco-friendly brands. Including elements with a natural vibe to brands triggers a sense of being with which consumers are already familiar and it creates a feeling of well-being thus contributing to consumer's engagement. In addition, there is a need for trust and transparency in sustainability claims since it helps to maximize brand attachment. Compared to greenwashing, consumers are more likely to be able to keep their faith in the brands that honestly commit to this activity. Moreover, personal values are the main driver of long-term engagement with sustainable brands. Brands that share the same views of environmental consciousness as the consumers are naturally a consumer's choice. Authentic storytelling is a strong tool to create an emotional connection between believers of a brand and the actual brand. It will help brands establish credibility in the minds of eco-conscious consumers and create deep connections with them by communicating their commitment to sustainability. Last, the aesthetic aspect of biophilic design plays a major factor in the purchase and brand loyalty. Branding through the use of natural elements, minimalist elements, and organic texture of packaging increases the perceived value of the product. When biophilic principles are successfully integrated into a brand, a consumer simply feels more apt to be drawn toward that brand because it represents a commitment to sustainability while still creating an enjoyable look for them.

DISCUSSION

The purpose of the present study was to examine the relationship between biophilic tendencies, eco-brand perception, and brand attachment in the context of eco-friendly brands. However, the SEM-based findings imply that eco-brand perception has a small and positive influence on brand attachment but this relationship is not statistically significant. Likewise, biophilic tendencies do not influence the prediction of brand attachment, that is, having a natural affinity for nature does not directly equate to one's attachment to eco-friendly brands. Thus, these results add to the increasing literature on consumer behavior due to sustainability, brand attachment, and biophilia. The results show that the biophilic tendency does not significantly affect brand attachment, as the coefficient of the biophilic tendency (-0.0606 , $p = 0.2432$) is weakly negative. This is contrary to the Biophilia Hypothesis (Wilson, 1984) that proposes that humans have a predestined bond with nature that directs their preferences, behaviors, and emotions toward

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

nature. Although earlier research has shown that natural elements are linked with positive emotional and psychological outcomes (Kellert & Calabrese, 2015), our results suggest that such affinity does not translate into a stronger attachment to brands featuring natural elements. A possible reason for this finding is that biophilia may be a subconscious preference rather than an explicit driver of consumer-brand relationships. In other words, consumers may like nature-inspired branding but it does not seem to be the main driver of brand attachment. Joye and de Block's (2011) research shows that biophilic design affects cognitive and affective responses in general, but this does not necessarily mean that individuals will form strong emotional connections to brands simply because they use biophilic elements. Furthermore, the results indicate that eco-brand perception has a small but positive impact on brand attachment (0.0957, $p = 0.1082$) but this relationship is not statistically significant. The role of brand perception and trust in fostering brand attachment is highlighted in the prior research, especially about sustainability-oriented brands (Ng, Butt, Khong, & Ong, 2014). Consumers, when they feel these brands are authentically eco-friendly tend to form positive emotional ties, and this can lead to customers becoming loyal to the brands and advocating for them (White, Hardisty, & Habib, 2019). Despite this, statistical significance is absent in this study, meaning that this may not be enough to drive strong brand attachment to an eco-brand alone. This finding is consistent with previous studies which have shown that other factors like brand trust, product quality, and emotional branding also determine the consumer-brand relationship (Chaudhuri & Holbrook, 2001). Consumers may like that a brand is sustainable, but a positive experience of being sustainable does not always translate to an emotional commitment to that brand.

This weak relationship may be because of the increasing skepticism about green marketing claims. TerraChoice (2010) showed that the harshest consumers are still concerned about greenwashing or exaggerating and false sustainability claims of brands. This means that although eco-brand perception might have an impact in attracting consumer initial interest in the brand, it is not sufficient to elevate consumer attachment unless it is supported by consistent and transparent sustainability actions. The findings of this study offer several theoretical and managerial implications. Theoretically, the study contributes to brand attachment and sustainability marketing literature by identifying the limited role of biophilic tendency and eco-brand perception in creating brand attachment. Finally, this implies that although nature-inspired branding and sustainability messaging do improve brand perception, they in and of themselves are not the determinants of emotional consumer-brand relationships.

Results show that from a manager's point of view, to be a sustainable brand, it is advisable to shift beyond surface-level sustainability claims and to create holistic brand experiences that reinforce trust and emotional involvement. Therefore, biophilic elements should be

incorporated into the strong brand narrative, transparent sustainable practice a good storytelling. It has been suggested in prior research that authentic storytelling can instill great trust among consumers and make them feel more attached to a brand (Escalas, 2004). For this reason, it is up to brands to utilize emotional storytelling techniques to illustrate their commitment to sustainability and engage with consumers on a more emotional level. Since there were only insignificant statistical associations between eco-brand perception, biophilia, and brand attachment in this study, future studies should examine other variables that might be intervening or conditional in associating eco-brand perception, biophilia, and brand attachment. Such as brand trust and perceived authenticity might be more important in strengthening the relationship between sustainability messaging and brand attachment (Beckmann, 2007). Then, future studies may be conducted to investigate the impact of cultural differences on consumer response to biophilic branding as well as eco-brand perception.

Also, one could take a longitudinal approach in future research to study how attachment to the eco-friendly brand changes over time. The initial brand perceptions may not turn into strong attachments the very first time but can build up in repeated brand interactions and line with consistent sustainability efforts. Therefore, through analyzing these factors, future research can better understand the factors that determine customer loyalty in sustainable brands.5. Conclusion. This study sought to examine the impact of biophilic tendencies and eco-brand perception on brand attachment. The results indicate that biophilic tendencies do not significantly influence brand attachment, and while eco-brand perception has a small positive effect, it is not statistically significant. These findings suggest that biophilia and eco-friendly brand perceptions alone are not sufficient to create deep consumer attachment and that other factors such as trust, product quality, and emotional branding may play a more prominent role. For marketers, these findings emphasize the need to go beyond surface-level sustainability messaging and focus on holistic branding strategies that foster emotional connections with consumers. Future research should explore additional variables that may influence the relationship between sustainability-driven brand perceptions and consumer attachment. Overall, while eco-friendly branding and biophilic design contribute to brand perception, they are not the sole determinants of long-term consumer loyalty. A multi-faceted approach integrating trust, authenticity, and emotional storytelling is needed to build strong, lasting brand attachment in the sustainability sector.

CONCLUSION

Eco brands use nature-inspired branding strategies to create consumer relationships with a brand (brand attachment) and how nature-inspired branding strategies affect consumer perception of brands as eco brands and subsequent brand attachment. The results reveal that biophilic elements increase brand perception, but they

How to cite: Dr. Somnath Roy Choudhury, The Role of Biophilia in Consumer Brand Attachment: A Study on Eco-Friendly Products " *Advances in Consumer Research*, vol. 2, no. 1, 2025, pp. 261-269.

are not sufficient to create a strong brand attachment. However, eco-brand perception is a minor but positive factor in the determination of consumer attachment, but not statistically significant. From the literature, it is suggested that biophilic branding increases emotional linkages by exploiting the psychological benefits of nature to raise consumer trust and perceived attributes. Although trust, authenticity, emotional storytelling, and ethical consumption are only a few of the contributors to this multi-dimensional brand attachment process. Brand case studies such as Patagonia and Aesop show how biophilic design and the sustainability narrative successfully become integrated into a brand to create stronger consumer relationships. Only when biophilic branding is complemented by transparency, ethical sourcing, and storytelling will it help drive the home of the future for sustainable businesses to be able to capitalize on long-term loyalty? There is potential for future research to look into cultural differences, brand authenticity, and sensory, particularly biophilic branding. All in all, nature-inspired branding is a promising tool for sustainable businesses, but it should be brought in with another brand-building element in a strategic way to affect the consumers.

REFERENCE

1. Beckmann, S. C. (2007). Consumers and corporate social responsibility: Matching the unmatchable? *Australasian Marketing Journal (AMJ)*, 15(1), 27-36.
2. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
3. Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.
4. Escalas, J. E. (2004). Narrative processing: Building consumer connections to brands. *Journal of Consumer Psychology*, 14(1-2), 168-180.
5. Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343-373.
6. Hartmann, P., & Apaolaza-Ibañez, V. (2010). Beyond Savanna: An evolutionary and environmental psychology approach to behavioral effects of nature scenery in green advertising. *Journal of Environmental Psychology*, 30(1), 119-128.
7. Hwang, J., & Kandampully, J. (2012). The role of emotional aspects in younger consumer-brand relationships. *Journal of Product & Brand Management*, 21(2), 98-108.
8. Joye, Y. (2007). Architectural lessons from environmental psychology: The case of biophilic architecture. *Review of general psychology*, 11(4), 305-328.
9. Joye, Y., & De Block, A. (2011). 'Nature and I are two': A critical examination of the biophilia hypothesis. *Environmental Values*, 20(2), 189-215.
10. Kellert, S. R., Heerwagen, J., & Mador, M. (2011). *Biophilic design: the theory, science, and practice of bringing buildings to life*. John Wiley & Sons.
11. Kellert, S., & Calabrese, E. (2015). *The practice of biophilic design*. London: Terrapin Bright LLC, 3(21).
12. Ng, P. F., Butt, M. M., Khong, K. W., & Ong, F. S. (2014). Antecedents of green brand equity: An integrated approach. *Journal of Business Ethics*, 121, 203-215.
13. Park, C. W., MacInnis, D. J., & Priester, J. (2008). Brand attachment: Constructs, consequences, and causes. *Foundations and Trends® in Marketing*, 1(3), 191-230.
14. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
15. Sirgy, M. J. (1982). Self-concept in consumer behavior: A critical review. *Journal of consumer research*, 9(3), 287-300.
16. Thomson, M., MacInnis, D. J., & Whan Park, C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology*, 15(1), 77-91.
17. Van den Berg, A. E., Hartig, T., & Staats, H. (2007). Preference for nature in urbanized societies: Stress, restoration, and the pursuit of sustainability. *Journal of Social Issues*, 63(1), 79-96.
18. White, K., Hardisty, D. J., & Habib, R. (2019). The elusive green consumer. *Harvard Business Review*, 11(1), 124-133.
19. Wilson EO. *Biophilia*. Harvard University Press; 1986.