

## Article

# Improving Consumer-Based Green Brand Equity: The Role of Healthy Green Practices, Green Brand Attachment, and Green Skepticism

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**Abstract:** This study examines the effect of green practices on green brand equity, and it looks at the impact of green brand attachment and green skepticism as mediating variables on these relationships. We employed a dataset of 454 consumers from international fast-food restaurants. Our empirical results indicate that green practices enhance consumer-based green brand equity. Green skepticism has a significant negative effect on green brand attachment, and green brand attachment has a significant positive effect on green brand equity. Green brand attachment mediates the relationship between green practices and green brand equity and between green skepticism and green brand equity. The study findings provide consumer insights into green products and managerial implications for international fast-food chains.

**Keywords:** green practices; green skepticism; green brand attachment; consumer-based green brand equity; international fast-food restaurants



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## 1. Introduction

There is an increasing awareness of corporations' environmental commitment because these commitments enhance their competitive advantage [1]. Initially, customers in developed economies preferred environmentally sustainable products [2]. However, with the Internet being available to the masses, all information can now be looked up online [3]; because of this, consumers in developing economies are becoming increasingly aware of the companies that follow environmental practices [4]. According to the World Air Quality Index 2021, Pakistan's consumers have shown a deep interest and recognition of eco-friendly [5–7] practices.

In the modern world, it will be beneficial for companies to adjust their brand equity management, as consumers are aware of environmental stressors and demand environmentally friendly products. It can be advantageous for companies to develop green brand equity (GBE) [4,7]. Therefore, GBE is a rather significant trend among consumers, so it is gaining the attention of practitioners and researchers. Moreover, past research found that consumers may be pleasantly affected via GBE in numerous ways like brand attitude [2,4], intention to buy [8], and positive word of mouth [2]. However, the current study has highlighted the need for brand attachment and skepticism as mediating variables between green practices and green brand equity.

GBE's importance has been recognized in many research studies that examined green practices. Past literature has recognized that green attitude, brand image, trust, satisfaction, loyalty, and brand perceived value towards green practices that determine GBE [2,8]. However, the current body of knowledge neglects several green marketing practices that adversely affect GBE. At the same time, GBE is enhanced by executing green marketing

practices positively or ignoring the negative aspects. The studies focused on green practices for improving GBE. However, the literature is mainly mute on the green marketing practices that are degenerating GBE, neglecting the role of green skepticism.

Continuous ecological degradation is instrumental in increasing consumer environmental awareness [9]. Consumers with heightened awareness are more likely to exhibit a sustainable pattern of consumption [10]. Present-day consumers demonstrate a strong sense of environmental consciousness and avoid consuming products that adversely affect the environment and are not healthy [11]. Consumers have become more proactive regarding brand selection [12]. Research [13] suggests that green practices and attachment to green products are pivotal in decision making. Consumers prefer green brands that market products and contribute positively to the environment. Such consumers' beliefs are critical in developing an effective marketing strategy for promoting environmentally friendly products [14]. Research [9] suggests that consumer sustainability perception results in a more positive attitude toward those brands that adopt green practices and effectively communicate them to targeted consumers.

Green practices and reduced skepticism could be key variables for various green marketing strategies [15]. Green practices are the eco-friendly initiatives adopted in recycling processes, food procurement, green menu planning, green cooking, green take-out packaging, green cleaning and post-treatment, green management, green customer education, and green corporate social responsibility [16,17]. In contrast, previous studies in the literature have paid little attention to green skepticism, which refers to consumers' doubts about the brand's environmental claims [18]. Consumers revealed general concerns about the environment, and consumer perception of green products mainly affects their purchase decisions [19,20]. A related stream of consumer skepticism research has shown possible motives behind consumer doubt. Literature on green practices and standards for restaurants is available in Western countries, and few were conducted in the context of Asia [21,22]. Consumers who believe in the brand's green claims show a strong behavioral outcome of loyalty to their specific green restaurants and spread positive word of mouth about the restaurant [23].

Moreover, green brand attachment plays an essential role in establishing a person's emotional bonds with a specific brand after receiving certain green practices by the firms and fewer skeptical practices [7]. Furthermore, attracting the consumer to a particular brand will undoubtedly establish green brand equity. The authors of [7] claim that "a set of liabilities and assets of the brand regarding environmental concerns and green commitments are in coherence with a brand including its symbol and name, that can significantly subtract from or add to a brand's value through that particular brand's product or service." Today, Pakistan is facing severe environmental problems. The Health Effects Institute (HEI) published the annual Global Air Report, which showed that over 94% of the world's population is breathing unhealthy air, contributing to millions of deaths with strokes, lung disease, heart attacks, and lung cancer [24]. Air pollution is the fourth-highest death cause, and most deaths were recorded in developing nations [5,6].

Today, most of South Asia's population is endangered by natural disasters like earthquakes, storms, and floods. However, around 70% the population of Pakistan faces natural hazards [25]. Furthermore, Pakistan ranked third in air pollution, with more than 300,000 deaths annually. According to Natural Hazards Vulnerability Index, which assesses a country's ability to face natural hazard events, Pakistan is at a high risk with 43 points, which means Pakistan has weak institutional capacity and financial resources to face environmental problems [5,6].

Most consumers demand better supplementary information from companies to ensure that their claims are valid [26]. The advent of an environmentally friendly consumer attitude is a challenging issue for international food marketing firms, especially multinational fast-food chains, as they cater to millions of consumers [27,28]. Global fast-food chains need to show higher levels of corporate social responsibility and devise marketing strategies that promote environmental protection and human health [12]. However, Conrad's [29]

research shows that only McDonald's has attained the best green practices status [29]. The research further elaborated that McDonald's green practices and sustainable initiatives include sustainable beef, packaging and recycling, climate action, and the Happy Meal program [30,31].

Similarly, business firms are becoming more proactive risk-takers in order to attain a first-mover advantage [32]. People are more concerned about daily products [20]. Such tangible actions impact consumers' perceptions about food-branded firms, and their brand achieving green brand equity has remained a significant focus for both marketers and the industry [2,12]. On top of attaining profit targets, international branded businesses must market an eco-friendly brands [33]. The literature revealed that brand equity had been significantly under consideration by scholars. Limited studies focused on determining the factors associated with forming green brand equity [10]. Moreover, green practices and skepticism on green brand equity with the mediating role of green brand attachment need attention [5,6]. Directions are given by [34] for including green skepticism as an independent variable.

Hence, the main objectives of this study are as follows.

1. To examine the effect of green practices on green brand attachment and green skepticism in fast-food chain consumers.
2. To examine the effect of green brand attachment and green skepticism on green brand equity.
3. To learn whether green brand attachment and skepticism mediate the relationship between green practices and green brand equity.

The manuscript is organized according to the relevant sections. First, we have reviewed the gap and literature, and based on that we have proposed the hypotheses. Furthermore, we explained the study's methodology with detailed discussion and justification. Third, the manuscript has presented the analysis and interpretation against each objective and hypothesis. Finally, the study has discussed hypotheses, results, implications, conclusion, limitations, and future research.

## 2. Conceptual Framework and Hypotheses Development

### 2.1. Green Practices and Consumer-Based Green Brand Equity

Green consumerism prevails when practitioners use green marketing as a critical strategy to make a point of differentiation [35]. Therefore, companies need to target a unique segment enriched by green consumerism [13]. In addition, if marketing delivers value related to environmental sustainability, it may create a green need [36]. Consequently, this will help the management to accelerate sustainable performance by executing green brand equity [37,38].

Consumers marked a positive attitude and felt high degrees of self-congruity toward those restaurants which exercise green activities [39]. However, green practices bring a positive outcome when environmental issues are under consumer consideration, leading to a positive approach exclusively for the environmentally woke brands [40]. Literature has highlighted that bringing green practices into operation leads to cost effectiveness and improved brand equity [22]. Consumers show a growing need for eco-concerns [9]. As consumers become more concerned about ecological issues, their attitudes, purchase intentions, and attachment to a green brand increase [41]. This attitude makes consumers more satisfied and loyal to a particular brand [36].

**H1:** *Green practices of fast-food chains positively affect consumer-based green brand equity.*

### 2.2. Green Practices and Green Brand Attachment

Attachment is a crucial factor that plays a strategic role in conceiving a brand's commitment. Consumers emotionally connected with the brand indicate a solid commitment to that particular brand [42,43]. Eventually, a person connected deeply with a particular object becomes attached to it and enthusiastically continues interacting with it [42].

Some researchers have empirically proven that consumers' perception of green practices significantly links with green behaviors [44]. However, the effect of green practices on consumers' emotional responses like green brand attachment has received less attention from scholars. Following previous literature, environmentally involved consumers are capable of recognizing an eco-friendly brand and experiencing consistency and loyalty toward them [45].

However, attachment is a link between a specific object and a person [46]. Similarly, brand attachment is an outcome of a long-term relationship between the brand and the person [16]. This bond may vary in strength, with some consumers exhibiting a strong bond with an attachment object while others exhibit a weak bond [47]. Additionally, [48] has argued that consumers' positive perceptions about firm's green practices will strengthen brand attachment [16]. Therefore, it is justifiable that green practices would positively affect green brand attachment [41,45]. Therefore, based on the above discussion, we can derive the following hypothesis.

**H2:** *Green practices by fast-food firms positively affect green brand attachment (of international fast-food restaurant consumers).*

### 2.3. Green Practices and Green Skepticism

Restaurants' green practices, such as eliminating plastic bags for food delivery, can positively affect customers regarding a brand's perception (green image) and attitudes toward the restaurant overall [20,22]. It matters when these customers are ecologically conscious and show their purchase intentions after evaluating the brand's image and attachment to the green environment [20,22]. First, the past study results suggested that customers' perception of a restaurant's "greenness" is developed upon a restaurant's green practices, influencing customers' attitudes toward that particular restaurant [28,49]. The literature also identified recycling waste, energy-efficient lighting, and recyclable take-out containers as those green practices that contribute to a customer's perceptions of a restaurant's green image [27,44]. However, only ecologically conscious customers reduce the brand's skepticism as customers become more conscious [22,50].

**H3:** *Green practices by fast-food firms negatively affect green brand skepticism (of international fast-food restaurant consumers).*

### 2.4. Green Brand Attachment and Consumer-Based Green Brand Equity

Brand equity could be viewed from a financial or customer perspective, whereas it is a financial value of a brand [51,52]. If we consider it from customer perceptions, it is referred to as customer-based brand equity [52]. Moreover, attachment has been considered an interpersonal phenomenon that may develop an attachment to objects [47,53]. Emotional brand attachment is a bond that links a consumer with a focal brand and affects a person's feelings toward that brand [46,54].

The high levels of brand attachment, the easier it is to maintain proximal behaviors and a customer's willingness to spend cognitive and financial resources on that specific object [47]. Creating brand equity is crucial for any company to differentiate its product from competing ones [55,56]. Therefore, the brand has intrinsic value because of its ability to differentiate itself, referred to as brand equity [51]. Moreover, green brand equity occurs when the consumer is already attached to a particular brand and holds some unique, strong, and favorable brand association [57,58]. A high level of emotional brand attachments will create points of difference that determine a preferred brand from its substitutes by enhancing brand equity [59]. Brand equity cannot be disrupted in the short run and, consequently, built in the long run through marketing investments. In addition, brand equity is a sustainable and valuable asset of a firm [60]. The authors of [61] have found that green attributes emerged as a significant determinant of consumer green purchase behavior. In contrast, a positive green brand image creates a stronger emotional bond and

brings green brand equity [62]. Notably, it is defensible that emotional brand attachment plays a significant role in developing green brand equity. Therefore, this study formulates the following hypotheses for further testing.

**H4:** *Green brand attachment of consumers positively affects the green brand equity of international fast-food restaurant consumers.*

#### 2.5. Green Skepticism and Green Brand Equity

Skepticism tends to doubt others, whereas green skepticism means “the likelihood of doubt regarding a brand’s environmental performance and claims” [63,64]. This view is the same as that in [65], which conceptualized skepticism as a doubt about green products rather than deep-rooted mistrust. Previous literature has indicated the role of skepticism in different disciplines, for instance, philosophy, politics, psychology, and sociology [66]. A pessimistic personality trait is characterized by frustration, and skepticism is nurtured with doubts regarding an organization’s capability to deliver the communicated results [67].

Green skepticism is growing worldwide due to widespread societal concerns regarding the advertisement of unclear environmental information [68]. Concurrently, skepticism may negatively affect consumer behavior, whereas understanding skepticism’s strike on consumer behavior will be a new marketing turn [50]. Based on the urgency to address this issue, the hour needs to visualize how skepticism will change the consumer’s attitude towards a particular brand [18]. Past literature has concluded that green skepticism negatively molds the green purchase intentions of the consumer based on environmental concerns and knowledge [18]. However, the authors of [69] found that green brand image mediates the negative relationship between greenwashing and green brand equity. Greenwashing is getting more common for companies to acquire opportunities due to the growing need for green purchases [70]. Firms have to look at brand equity intensively and continuously to remain competitive. Hence, we propose the following.

**H5:** *Green skepticism of fast-food chains positively affects consumer-based green brand equity.*

#### 2.6. Green Skepticism and Green Brand Attachment

One study demonstrated that the skepticism of organic labels is just a deterrent to the purchase intention of food products [71]. This kind of impression of a firm will lead to a negative attitude toward green products. Moreover, consumer skepticism reveals a negative product image and lower purchase intentions [63,70]. Green skepticism results in weaker brand attachment, and such an impression of a firm might lead to a negative attitude about green products [63,70]. Therefore, green skepticism establishes a weaker brand attachment [18].

Studies have argued that a “high level of skepticism significantly affects perceived consumer effectiveness and green purchase behavior.” Meanwhile, green skepticism can decrease consumer purchase intentions and lead to a negative brand image [41,72]. Consequently, consumers may feel that the firm is misleading them about environmental information to improve its reputation. Additionally, previous literature shows that brand attachment becomes weaker if a firm is involved in unethical activities [73]. Therefore, this study argues that green skepticism would negatively influence green brand attachment and lead to articulating the following hypothesis.

**H6:** *Green skepticism negatively affects green brand attachment.*

#### 2.7. The Mediation Effect

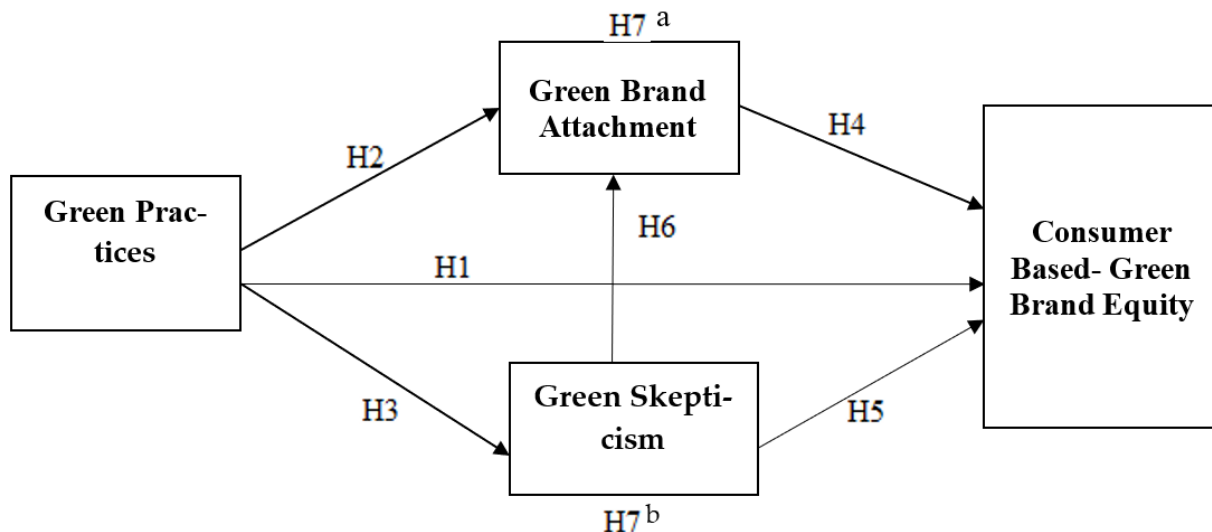
**H7a:** *Green brand attachment will strengthen the relationship between green practices and green brand equity of international fast-food restaurant consumers.*



**H7b:** *Green brand skepticism will mediate and explain the relationship between green practices and green brand equity in international fast-food restaurant consumers.*

### 3. Methodology

In this research, consumers of fast-food chains were nominated as the empirical setting for several motives (See Figure 1). First, Pakistan was chosen because it is an emerging country with a total population of approximately 230 million in 2022, and with a young population, 50% belong to the age group between 18 and 35 and have a sustainable consumption income. Second, Pakistan offers an exciting research context to examine consumer behavior regarding green practices, green skepticism, green brand attachment, and green brand equity towards fast-food chains. Third, most international fast-food chains cater to essential sustainable environmental requirements such as ISO14001 certifications. Fourth, the Pakistani government prioritizes developing sustainable infrastructures, such as the green Pakistan initiative. Gas conservation, eco-friendly and oil-efficient transportation policies, solid waste management, and other pollution-related and health hazard materials like plastic bags and cups are now being converted into recyclable products. Fifth, prioritizing green products and sustainable initiatives at the domestic level may lower the pollution level in Pakistan.



**Figure 1.** Research model.

#### 3.1. Data Collection and Sampling Procedure

Initially, we selected all the international fast-food outlets in Pakistan that have a clear commitment to sustainable and environmentally friendly practices: the selected outlets were Kentucky Fried Chicken (KFC) with approximately 80 outlets, McDonalds with 65 outlets, Pizza Hut with 66, Burger King with 20, Hardees with 25, Subway with 42, Johnny Rocket with 12, Domino Pizza with 15, and Fat Burger with 14 outlets. However, the study has included four major urban cities of Pakistan: Islamabad, Lahore, Faisalabad, and Multan. Most international chains operate, and consumers are well knowledgeable, educated, and health-conscious when selecting a green fast-food outlet. This study mainly surveyed the consumers who were repeatedly buying the products from these fast-food outlets (FFO) and had a college degree with an adequate level of awareness regarding environmental issues.

The selected fast-food outlet (FFO) employed several initiatives to attain environmental sustainability through various handling procedures, especially the standards and ingredients used in preparing a meal, the standard operating procedures for preparing the order, and the supporting material used in the whole process. Furthermore, these selected outlets play a significant role in developing an eco-friendly environment in terms

of packaging in which food is delivered to the consumer and the ambience of the outlet, for instance, controlling temperature, hygiene, and sitting environment.

A self-administered survey was selected to ensure the quality of the filled questionnaire and to interact with the customer. The questionnaire was divided into three sections. First, a five-point Likert scale was selected to record the response to 24 questions except for demographics. The first part contained the name of all multinational fast-food chains by which respondents had to select one favorite chain. Furthermore, a good sample size for statistical or quantitative analysis must be at least 5–10 times higher than the total number of items. Thus, the sample size of the present study is 240, according to the rule of thumb [74]. The study has considered distributing 600 questionnaires considering the risk of a low response rate. However, 454 usable responses were collected from the consumers, revealing a surprising response rate of 76%, and this decreases the probability of response bias.

This study used the critical informant approach for gathering primary data. All the key informants were loyal consumers of fast-food outlets who have been eating the food of these respective fast-food chains for the last five years. They had significant knowledge of several fast-food outlets and had already adopted several environmental practices. Next, the original structure of the questionnaire was in the English language, and to make it more understandable, a pre-testing procedure was performed to satisfy the language issues. Furthermore, two marketing and supply chain university teachers have modified the language quickly and understandably. After the required changes, experts from fast-food chain outlets and respondents (loyal customers of fast-food chains for the last ten years) reviewed the questionnaire and did not find any ambiguity in the language.

Furthermore, after collecting the primary data from the respondents, a prevalent issue that primary survey research could face is the common method variance, which can be an issue if we collect the data in one session with no separation of the sections. However, the current study has separated the independent and dependent variables into separate sections, as recommended by [75]. Secondly, to analyze the common method biasness issue, we employed Harman's single-factor analysis and performed the analysis on the items of both dependent and independent variables. However, no single factor has accounted for more than 36% of the total variance. The results revealed no common method variance problem in the current study.

### 3.2. Measures

This study has modified existing measures to assess international fast-food outlets' (FFO) green practices with ten items adapted from [44]. Four items of green skepticism were adapted from a previous study [65]. The researchers asked respondents how they perceived certain fast-food chain green activities based on the literature review. They assessed the respondents' attachment to a green chain with a six-item scale adapted from [76] based on consumer environmental needs, values, personal importance, and interests. The four-item scale has been adapted for green brand equity [60]. The last portion of the survey elicited respondents' demographic information like age, gender, city, and education level, as provided in Table 1. Furthermore, the items of each construct have been provided in Table 2.

**Table 1.** Demographic profile of respondents.

Demographic	Frequency
<b>City</b>	
Islamabad	180
Lahore	116
Faislabad	84
Multan	74
<b>Gender</b>	
Male	282
Female	172
<b>Age</b>	
20–30 Y	306
31–40 Y	118
41–50 Y	20
51–60 Y	10
<b>Education</b>	
Graduate	308
Postgraduate	102
Bachelor	44

**Table 2.** Description of items, loadings, VIF, and validity measures.

Constructs	Loadings	VIF	Measurements. Measured on 5 Points Likert Scale (1 = Strongly Disagree and 5 = Strongly Agree)
Green Practices (GP) CR = 0.927 AVE = 0.614	0.660	1.796	GP1: This fast-food outlet offers recycling bins for plastic and paper cups.
	0.688	2.068	GP2: This fast-food outlet uses recyclable take-out containers.
	0.713	1.773	GP3: This fast-food outlet uses energy-efficient lighting in the seating area.
	0.825	2.740	GP4: This fast-food outlet uses eco-friendly materials (e.g., recycled napkins).
	0.739	2.446	GP5: This fast-food outlet uses low-water flow taps in the washrooms.
	0.811	2.877	GP6: This fast-food outlet recycles the waste in the back of the store.
	0.731	2.183	GP7: This fast-food outlet uses environmentally friendly cleaners for tables and floors.
	0.694	1.827	GP8: This fast-food outlet use environmentally friendly cleaners for mugs and glasses.
	0.744	1.879	GP9: This fast-food outlet uses motion detectors for lights.
	Deleted	-	GP10: This fast-food outlet uses a system that monitors and controls comfortable temperatures.
Green Brand Skepticism AVE = 0.60 CR = 0.817	0.844	1.819	GBS1: I agree that most environmental claims this fast-food chain makes through word of mouth/social media platforms or in advertising are valid.
	0.663	1.408	GBS2: I agree that most environmental claims are exaggerated; consumers would be happier if such claims for this branded product through word of mouth/social media platforms or in advertising were eliminated.
	0.694	1.329	GBS3: I agree that most environmental claims for this branded product or advertising are intended to mislead rather than inform consumers.
	0.793	1.496	GBS4: I do not believe most environmental claims are made for this branded product or in advertising.



Table 2. Cont.

Constructs	Loadings	VIF	Measurements. Measured on 5 Points Likert Scale (1 = Strongly Disagree and 5 = Strongly Agree)
Green Brand Attachment AVE = 0.596 CR = 0.898	0.772	1.657	GBA1: I feel this fast-food chain is a part of me; one reason may be its green practices.
	0.716	1.777	GBA2: I identify more strongly with this fast-food chain because of its green practices.
	0.762	1.781	GBA3: Visiting this fast-food chain says a lot about who I am because of its green practices.
	0.714	1.589	GBA4: I would be more attached to this fast-food chain because of its green practices.
	0.731	1.905	GBA5: I feel a strong sense of belonging to this fast-food chain because of its green practices.
	0.767	1.869	GBA6: This fast-food chain means a lot to me; one reason may be its green practices.
Green Brand Equity AVE = 0.619 CR = 0.867	0.753	1.503	GBE1: It makes sense to buy this brand instead of other brands because of its environmental commitments, even if they are the same.
	0.802	1.693	GBE2: Even if another fast-food chain has the same environmental features as this one, I would prefer to buy the food from this fast-food chain.
	0.822	2.021	GBE3: If there are other fast-food chains has the same environmental performance as good as this fast-food chain, I prefer to buy from this fast-food chain
	0.814	1.930	GBE4: If the environmental concern of another fast-food chain is not different from that of this in any way, it seems more innovative and preferable to purchase from this fast-food chain

### 3.3. Validation of Constructs

For all the multi-item constructs (GP, GS, GBA, and GBE), a pre-test concerning face validity and content validity was performed to analyze the issues related to each measure. However, a pilot study was performed to analyze the reliability of each construct and its multi-item consistency. Pilot study data was excluded from the central survey and dropped those items which proved to be lower than the threshold value of loadings concerning endogenous and exogenous variables. The convergent validity was examined by analyzing each variable item factor loading and its significance level in its specific variable. However, all the items of latent constructs loaded were between 0.660 to 0.844. The composite reliability of all the variables exceeds the minimum threshold of  $\geq 0.70$ . Similarly, the average variance extracted (AVE) of all variables was above 0.50, representing our measurement model's outstanding reliability [77]. In order to verify the unidimensionality (i.e., internal consistency) and reliability of our measurement model, we applied partial least square structural equation modeling (PLS-SEM) to examine the internal consistency and validity of the measurement model, as shown in Table 2 and Figure 2.

Discriminant validity determines by comparing the correlation among the latent constructs with the square root of AVE. The comparison among latent constructs is explained in Table 3, which summarize the square root of AVE of constructs: green brand attachment (GBA) = 0.744; green brand equity (GBE) = 0.798; green practices (GP) = 0.736; and green skepticism (GS) = 0.752. Table 3 explains the square root of AVE in bold cross diagonal values, which is greater than the correlation among latent variables, indicating acceptable discriminant validity [78]. After performing CFA, none of the variables were dropped. Only a few items have been deleted as a recommendation by [79].

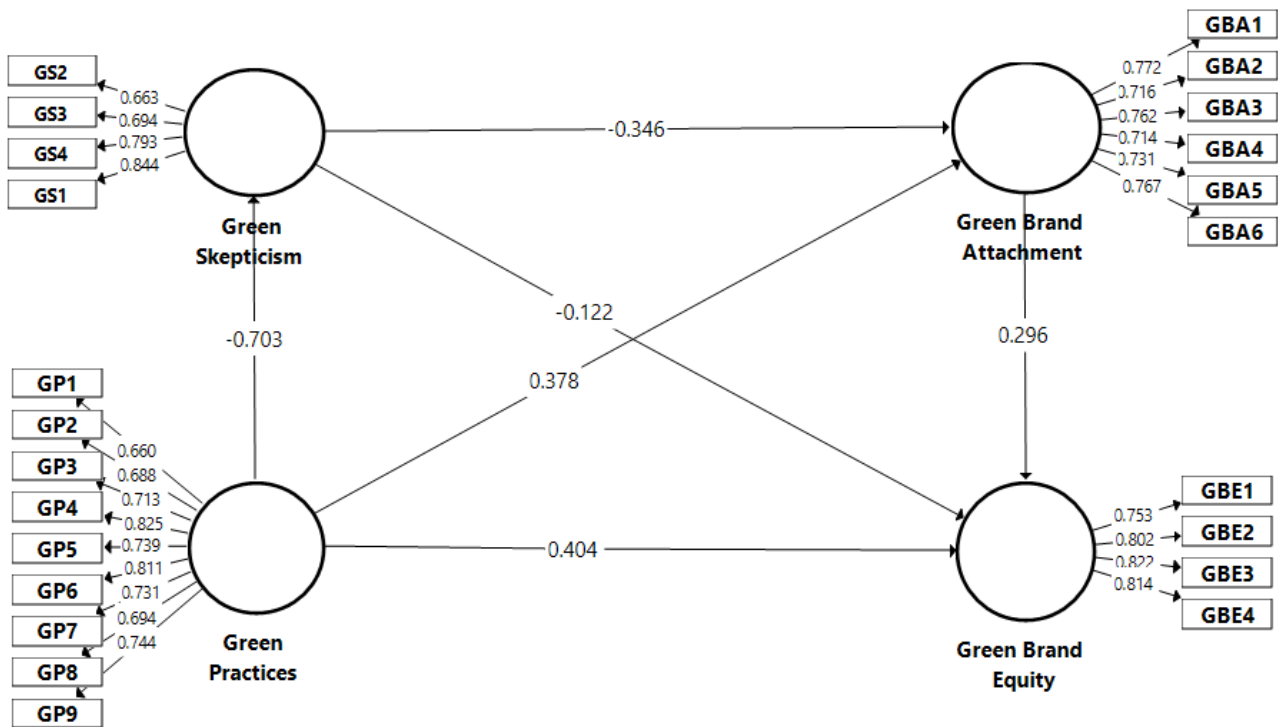


Figure 2. Measurement Model.

Table 3. Discriminant validity matrix (Fornell–Larcker criterion).

	Green Brand Attachment	Green Brand Equity	Green Practices	Green Skepticism
Green Brand Attachment	0.744			
Green Brand Equity	0.622	0.798		
Green Practices	0.621	0.674	0.736	
Green Skepticism	−0.612	−0.587	−0.633	0.752

## 4. Empirical Analysis and Results

### 4.1. Structural Model

Our structural model demonstrates results aligned with the study hypothesis. As proposed in H1, green practices positively affect green brand equity, and green practices significantly affect green brand equity ( $\beta = 0.404$ ,  $t = 7.905$ ,  $p < 0.000$ ). Hypothesis 2 predicted that green practices positively link with green brand attachment. The results have proved to be significant and positive ( $\beta = 0.378$ ,  $t = 6.563$ ,  $p < 0.00$ ). Thus, Hypothesis 2 is supported. Further, Hypothesis 3 indicates that green practices are negatively linked with green brand skepticism. The results revealed strong and significant negative results ( $\beta = -0.703$ ,  $t = 29.650$ ,  $p < 0.00$ ). Furthermore, Hypothesis 4 articulated that green brand attachment positively relates to green brand equity ( $\beta = 0.296$ ,  $t = 5.736$ ,  $p < 0.00$ ), supporting Hypothesis 4. Further, as articulated in Hypothesis 5, green skepticism is negatively linked with green brand equity. The results revealed significant negative results ( $\beta = -0.122$ ,  $t = 2.008$ ,  $p < 0.05$ ); therefore, they support hypothesis 5. Similarly, Hypothesis 6 articulated that green skepticism negatively links with green brand attachment. The results revealed the same significant and negative outcome ( $\beta = -0.346$ ,  $t = 5.940$ ,  $p < 0.00$ ); thus, Hypothesis 6 is supported. Results are also mentioned in Figure 3 and Table 4.

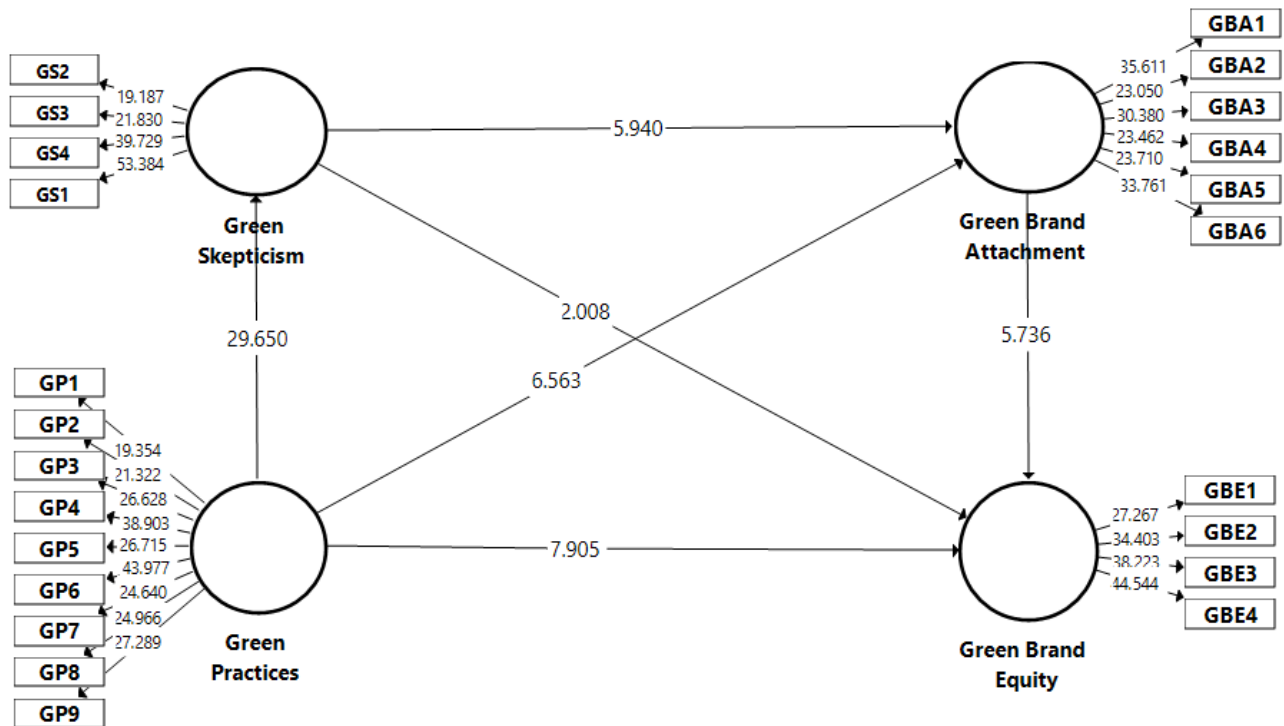


Figure 3. Structural Model.

Table 4. Results of hypothesis testing (direct effects).

	Direct Relationships	Beta	SD	T Stats	p Values	Decision
H1	Green Practices -> Green Brand Equity	0.404	0.051	7.905	0.000	Supported
H2	Green Practices -> Green Brand Attachment	0.378	0.058	6.563	0.000	Supported
H3	Green Practices -> Green Skepticism	-0.703	0.024	29.650	0.000	Supported
H4	Green Brand Attachment -> Green Brand Equity	0.296	0.052	5.736	0.000	Supported
H5	Green skepticism -> Green Brand Equity	-0.122	0.061	2.008	0.022	Supported
H6	Green Skepticism -> Green Brand Attachment	-0.346	0.058	5.940	0.000	Supported

Table 5 illustrates that the model has a predictive relevance as the values of Q-square are more significant than 0. Moreover, the results show that factors affect the green brand equity of the multinational fast-food sector in Pakistan (dependent variable) because the R-square value resulting from the PLS output indicates that all the variables altogether influence 52% of the changes in the dependent variable and 45% and 49% change in the mediating variables.

Table 5. Predictive relevance and R square.

Dependent Variables	Q <sup>2</sup> (= 1-SSE/SSO)	R Square
Green Brand Equity	0.33	0.528
Green Brand Attachment	0.234	0.447
Green Skepticism	0.277	0.494

#### 4.2. The Mediation Effect

The mediation test has revealed whether the mediating variable enhances the effect of the independent construct on the dependent [74]. Several techniques for mediation tests were used, such as a Sobel test [80] and bootstrapping [81]. The study used a “re-sample mediation technique (bootstrapping) to test each potential variable’s indirect effect.” Similarly, most studies show that bootstrapping is a “non-parametric resampling procedure”

that receives a high response from the researcher's perspective because this is considered one of the utmost rigorous and influential procedures for analyzing the mediation effect [81,82]. Moreover, this mediation analysis through bootstrapping is appropriate in PLS-SEM [74]. The study analyzed the role of mediating variables by using Smart PLS [60] through bootstrapping with a resampling of 5000. The results are given in the following Table 6.

**Table 6.** Mediation analysis results using a bootstrapping bias-corrected procedure.

	Mediation Hypotheses	Beta	SD	T Stats	BC 95% CI		Results
					5.00%	95.00%	
H7a	Green Practices -> Green Brand Attachment -> Green Brand Equity	0.086	0.042	2.022	0.014	0.155	Mediation
H7b	Green Practices -> Green Skepticism -> Green Brand Equity	0.112	0.025	4.421	0.074	0.157	Mediation

Table 6 shows the results of green brand attachment as the mediation between independent and dependent variables. Green brand attachment mediates between green practices and green brand equity with a t-value of (2.02). However, the study found that green brand attachment mediates green skepticism and green brand equity, as the t-value was significant (4.42). Therefore, Hypotheses 7a,b were found significant.

## 5. Discussion

The study empirically investigated the associations between green practices, green skepticism, green brand attachment, and green brand equity. First, we discussed the direct correlations between the variables. Second, the study has analyzed the mediation effect of green brand attachment and skepticism between green practices and green brand equity.

This study shows that there is a significant direct relationship between green practices and green brand equity. Previous researchers have shown mixed results about this relationship; some have shown significant positive relationships while others have empirically argued and proved the insignificant relationship. According to previous literature, environmentally conscious consumers are more responsive and interested in restaurants that follow green practices than those with low consciousness [27,37,39,50]. In addition, according to study findings, green practices significantly relate to green brand equity [7,37]. Furthermore, one reason is that consumers know about the green practices of a company [36]. Therefore, they choose one product over others to make a green purchase decision [12]. Consequently, a company's corporate green reputation is critical [83,84].

Next, green skepticism was proposed to relate to green brand equity negatively. The current findings indicated that green skepticism significantly negatively impacts green brand equity [4,7]. It implies that when green skepticism is high or the brands market the product in a way that a customer thinks is not green according to the required expectations, green brand equity will reduce and vice versa. Additionally, in line with the above findings, green skepticism is critical for brand image [68]. Past literature revealed significant empirical results about green skepticism [4,7,37,50]. One study revealed that companies must reduce their greenwashing to raise their brand image and enhance green brand equity [7,69]. Another study indicates that it is also possible that green claims could be misguided [32]. Consequently, products with real green benefits may require alternative ways to highlight those benefits to the consumers who support sustainable consumption and afterward enhance brand equity [37,50].

The results showed a positive relationship between green brand attachment and green brand equity [41]. The literature on brand attachment revealed different indicators, consumers' attachment to a green brand has a positive effect on brand loyalty, and brand loyalty is significantly associated with product loyalty [45]. In contrast, the findings of another study suggested that product attachment indirectly drives brand loyalty through the mediating effect of brand attachment [56,62]. Therefore, emotional brand attachment

and identification with the brand are essential for the consumer's long-term relationship with the company. Consequently, according to the above empirical results, it should be concluded that stronger brand attachment will result in higher brand equity [57,85].

The findings verified a positive relationship between green practices and green brand attachment, implying that bringing green practices into operation will strengthen brand attachment. The literature on green practices identifies recyclable take-out containers, energy-saving lighting, and recycling waste as critical green practices that significantly contribute to emotional brand attachment [22]. Consequently, following the above discussion, it is clear that green initiatives from the brand will result in a stronger brand attachment. The results of this study support Hypothesis 5, which proposed a negative relationship between green skepticism and green brand attachment. According to past literature, very few studies have been conducted on GS, whereas other empirical studies revealed mixed results about this phenomenon. A high level of skepticism remarkably decreases perceived consumer effectiveness and purchase intentions [86–88]. Additionally, consumers usually adopt a skeptical approach when interpreting a firm's green initiative, and these practices can further reveal what a customer's level of brand commitment may be [49,89–91]. According to our findings, brand attachment becomes weaker when green skepticism is higher than green.

The findings supported both mediating hypotheses, which articulate that green brand attachment and green brand skepticism mediate the relationship between green practices and green brand equity. There is partial mediation between green practices and green brand equity through green brand attachment and green brand skepticism [70,87,92,93]. Practitioners and policymakers need to lower green skepticism because current findings show that green skepticism significantly affects green brand attachment.

## 6. Implications

The above findings include a theoretical model that helps to explain factors affecting consumer-based green brand equity through green brand attachment toward multinational fast-food chains. The results revealed that green brand attachment mediates the relationship between green practices and green brand equity. It implies that the more the green brand attachment mediates, the relationship between green practices and green brand equity enhances significantly. Furthermore, the direct relationship between green brand attachment and green brand equity was significant. Similarly, there is a negative influence of green skepticism on green brand equity and green brand attachment.

Similarly, green skepticism mediates between green practices and green brand equity. The present study results present empirical evidence that shows the importance of green practices and green skepticism for marketers, scholars, and practitioners who fail to realize the importance of green marketing activities. The model also clarifies how consumers consider environmentally friendly activities and claims while choosing a fast-food brand.

Furthermore, the current study's findings demonstrate an open opportunity for executives of multinational fast-food restaurants to invest in green initiatives and consequently, to make brand attachment stronger and enhance green brand equity. Furthermore, on a practical note, the current study is helpful for executives to understate green brand equity by identifying the mediation effect of green brand attachment and green skepticism between green practices and green brand equity. Moreover, there is a need to reveal what policymakers can do to improve further and increase the sustainability of the fast-food industry. In addition, many marketers play smartly because of Pakistan's lack of effective regulation. Multinational fast-food restaurant owner–managers need to acknowledge the importance of the environmental factors in enhancing green brand equity indirectly and with the mediating role of green brand attachment and green brand skepticism. Lastly, multinational fast-food chain executives can get help from the current study and target environmentally conscious consumers. While 65% of the Pakistani population is millennials, sustainability is an open opportunity for executives to bring a real-time competitive edge.

## 7. Limitations and Suggestions for Future Research

Although this study contributes to the literature regarding the green brand equity of international fast-food restaurants in several ways, it still has several limitations that need to be identified. Future studies can consider investigating green brand attachment to other sectors. Secondly, the mediating variable tested in the study was limited to the green brand attachment. Other factors that belong to environmental factors, such as green effectiveness, can be considered a mediating factor between green practices, green skepticism, and green brand attachment. Moreover, new variables like greenwashing and green concern can be considered independent and mediating variables. Furthermore, green environmental performance can be viewed as a dependent variable in future studies to extend the literature by including other hospitality industries and can relate to the factors of carbon emission and cyclical economies.

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