

Volume 11, Number 02, 2023, Pages 2624–2637 Journal Homepage: https://journals.internationalrasd.org/index.php/pjhss

RNATIONAL RESEARCH ASSOCIATION FOR SUSTAINABLE DEVELOPM

# Green Brand Image and Green Brand Equity: Testing Mediating Role of Green Customer Satisfaction for Banks in Pakistan

Muhammad Sarfraz Khan<sup>1</sup>, Naveed ul Hassan<sup>2</sup>, Rashid Ali Aslam<sup>3</sup>

<sup>1</sup> Assistant Professor, Department of Commerce, University of the Punjab, Gujranwala Campus, Pakistan. Email: sarfraz.khan@puqc.edu.pk

<sup>2</sup> Lecture, Department of Management Sciences, Virtual University of Pakistan. Email: naveed.hassan@vu.edu.pk <sup>3</sup> Research Scholar, Superior University, Lahore. Email: rashid.aliaslam@gmail.com

## **ARTICLE INFO**

# ABSTRACT

Article History:		Deve
Received:	May 22, 2023	impo
Revised:	June 28, 2023	prov
Accepted:	June 29, 2023	a po
Available Online:	June 30, 2023	this
Keywords:		proc
Green Brand Equity		envi
Green Image		to v
Green Banking		bran
Environmental Concern		envi
Funding:		_ play
		findi

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

elopment of green image is becoming more and more ortant for corporate organizations around the globe. Banks vide finances to the corporations, and in this role they are in osition to enforce sustainable practices on their clients. In regard, a green bank not only adopts environmental friendly cesses, but also requires from its borrowers to conform to ironmental standards. This study investigates the question as whether building green brand image could provoke green nd equity of the banks in Pakistan and what role ironmental concern of consumers and their green satisfaction in this regard. Using respondent base of 300 people, findings indicated that green satisfaction mediates the relationship between green brand image and green brand equity. Further, green concern was found to negatively moderate the impact of green brand image on green satisfaction, which indicates that environmentally concerned individuals consider building a green image as hoax. Thus, banks should work on assuring their environmentally concerned consumer on the reliability and truthfulness of their green initiatives.

© 2023 The Authors, Published by iRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: sarfraz.khan@pugc.edu.pk

#### 1. Introduction

Recently, there have been increased concerns related to the environmental sustainability of planet earth (Ansari, Farrukh, & Raza, 2021; Junior, da Silva, Gabriel, & de Oliveira Braga, 2015; Nisbet, Zelenski, & Murphy, 2009). The words like carbon emission, greenhouse effect, global warming and pollution have become buzzword and their echoes are also heard in the corporate world. The issues related to environmental concern started during the era of industrial revolution, whereby mass industrialization caused increased carbon emission in the environment without any containment or recycling (Arrow, 2007; Rehman, Ma, & Ozturk, 2021). The main source of energy at that time was coal, which subsequently converted into furnace oil and natural gas. Consumption of any of these three sources of energy increases carbon emission in the environment and a question of environmental sustainability is raised. The increasing concern for environment is translated into many environmental protection legislations and related movements. As a result, corporations have started to align their processes to become more environmental friendly and sustainable. Modern customer is also relatively more aware of the environmental issues (Lam & Yeung, 2015) and demands its product or service providers to play their part to reduce carbon emission and operate in a responsible manner. The notions of being 'green' are related to this behavior of the business organizations, who serve their customers in an environmental friendly manner. Thus, sustainability and being green has emerged as a key operative aspect of various industries (H.-H. Hu, Parsa, & Self, 2010). In this scenario, customer tend to prefer the green product over a similar non-green product. Apart from the customer preference of the green products, various legislative steps have also been taken to ensure that activities of the corporate entities remain within the bounds environmental friendliness.

These requirements of being green are not only confined to the manufacturing industries only. Service segment of the corporate world is also required to adhere to the green code. On one side, banks are considered environmental friendly industry as their operations do not require much carbon emissions. But on the other side, banks could provide finances to the industry, which might be contributing to cause environmental hazards. More specifically, lending of banks could go to more hazardous industries like energy, chemical, fertilizer etc. Thus, banks could indirectly contribute in carbon emissions and provocation of environmental hazards (Bhardwaj & Malhotra, 2013). In this connection, banks also hold a dominating position in the corporate world because bank provide investment for the growth and also facilitate other businesses in various operations like cash management, collections, payments, marketing, and production. Therefore, this unique position of banks enable them to influence the decisions of its corporate clients and borrowers. Banks could help to reduce carbon emissions by asking their borrowers to adopt environmental friendly business practices. Thus, banks not only are in a position to make their borrowers aware of the environmental concerns but also have the ability to significantly influence their business processes to make them more environment friendly (Singhal, Singhal, & Arya, 2014).

Debate on green baking has been much more prominent in the recent years, where bankers not only are encouraged to consider their own business processes, practices and activities for environmental hazards; but also activities and processes of their borrowers to ensure their conformance to environmental standards prior to obtaining a loan (Oyegunle & Weber, 2015). For their own internal processes, banks could start focusing on the technology usage, energy consumption requirements, and recycling credentials to become environment friendly. In this regard, renewable energy consumption could be promoted, paperless and branchless banking could be encouraged, and travelling from bankers and customers could be discouraged (Gutierrez, 2016; Shakil, Azam, & Raju, 2014). On external account, banks could promote specific environmental friendly sector by extending lower-rate and high amount loans. Green audits could also be conducted to highlight and enforce green concerns. As a result, green projects could be preferred over other projects, and a green image of banks could be developed in this process. Development of a green image could help the banks to attract and retain customers having green orientation and concerns (Chen, 2010; Ibe-enwo, Igbudu, Garanti, & Popoola, 2019). Therefore, a green image be used as a promotional tool by the banks. On the other hand, green banks could reduce their costs by becoming more technologically advanced, reducing travelling, optimizing energy requirements, using recycling, and saving other resources like papers etc. Green banking services like branchless banking, internet banking, and mobile baking also provide more convenience and facilitation to the customers, which could yield a positive influence on their satisfaction and loyalty. This study tries to assess implications of being green for banks in Pakistan.

## 1.1. Green banking in Pakistan

Banking sector of Pakistan has witnessed a tremendous growth over the last two decades and there is an increased focus on both organic growth as well as growth in the bank offerings. Various new services, consistent with the notions of the green banking, are also being introduced by the banks e.g. mobile and internet banking. Some of the banks have taken initiatives relating to the consumption of clean or renewable energy like Bank Alfalah has installed ATM machines powered by solar power and the bank also is committed to transform its energy consumption patterns and business practices in accordance with the notions of green banking (Alfalah). Allied Bank, one of the largest bank in Pakistan, has gone a step further and have launched solar powered branches in various cities of Pakistan (Allied Bank, n.d.). This shows that there is an increased hustle in the banking sector of Pakistan to conform to the environmental standards and build a green image.

Further, State Bank of Pakistan (SBP) have also started promotion of green banking in Pakistan. SBP has launched Green Banking Unit to promote and facilitate green banking initiatives the country (Bhatti, 2015). There have also been indications of certain workshops and conferences organized by the SBP on the same (Desk, 2016). Thus, SBP as banking regulator is also provoking the implications of green banking among the banking corporations in Pakistan. Therefore, it is high time to investigate green brand implications of the this going green initiatives of the banks in Pakistan.

## **1.2.** Problem Statement

Green banking has started to take roots in banking sector of Pakistan, but its marketing implications have not yet been investigated and there is no evidence available as to how banks could build their green brand equity to reap a long run benefits from this going green movement. This study investigates implications of green brand image and green customer satisfaction for the green brand equity of banks in Pakistan.

## 1.3. Significance of the Study

This study has both theoretical as well practical significances. On theoretical side, this study provides evidence on a less explored avenue in Pakistan and highlights the means to develop green brand equity for banks in Pakistan. This study also highlights the green significance of banking sector in a developing country like Pakistan, where banking sector could play an instrumental role to lead the green movement. On practical side, this study could help banking organizations to design their green initiatives and marketing strategies to build green brand equity, which could have strategic implications for the banks in the country.

## 2. Literature Review

### 2.1. Green Banking

A green bank is same like a traditional bank as for as its activities and operations are concerned, the major difference between the two is that a green bank adopts and promotes environmental friendly policies, practices and products. Such banks actively tries to curtail carbon emission of their own activities and also of their borrowers (Park & Kim, 2020; Rahman, Ahsan, Hossain, & Hoq, 2013). According to Thombre (2011), it is a form of ethical banking where a bank deems itself accountable to the environmental and social consequences of its operations. Considering these notions, definition of the green banking is quite simple. Green banking is promoting environment friendly activities and operational practices in order to reduce carbon emissions being caused or supported by the bank. Benedikter (2011) related it to the 'banking with conscience'. Likewise, Masukujjaman and Aktar (2013) related green banking to the banking practices that are helpful to maintain earth as a habitable place. Julia and Kassim (2020) also concluded that green banking works on the premise to make the world a better place with healthy environment for the future generations.

Various researchers have tried to make assessment on the green activities of banks to come up with a certain set of operational activities related to the notions of being green. Rahman et al. (2013) provided that green banking is related to six main banking activities i.e. education and awareness of stakeholders, green human resource development processes, green deposit management, initiating greenhouse keeping, and ensuring green investment management. Likewise Bhardwaj and Malhotra (2013) highlighted that a green bank should consider reduction of its energy usage (air conditioning, lightening, IT & other equipment) and also avoid paper wastage by relying more on electronic processing. Thombre (2011) provided a stepwise process to adopt green banking. Firstly, the bank should go online, after that green checking accounts be offered, then green home financing be introduced, after that energy efficient equipment be installed, then paper usage be reduced, after that renewable energy resources like wind and solar be utilized, and in the end mobile banking may be offered. Millat, Chowdhury, and Singha (2013) also provided such an approach, where as a first step banks should consider adoption of in-house green activities like energy efficiency, paperless processes, conduction of energy audit, adopting renewable energy, and conformance of facilities on green standards; after that green products and services be offered to the customers including internet and mobile banking, green credit and extension of finances to green sectors, and conduction of green audit prior to granting the loan. Masukujjaman and Aktar (2013) also maintained that green banking initiatives included offering green products like green debit/credit cards, online/mobile banking, and green loans or mortgages. A three phase plan to adopt green banking is also proposed by them, whereby in the first phase green banking be launched and green policy be devised and in-house green activities be initiated; in the second phase, sector specific environmental policies be launched, green branches be setup, customer awareness planes be developed and launched, green strategic planning be initiated and in house green activities be refined. In the third and last phase, banks innovate on their green project and service offerings and start green disclosure to report their green activities in media and annual report.

## 2.2. Green Brand Image and Green Brand Equity

Brand image has attracted a lot of attention in the marketing literature, whereby it is attributed to a key differentiating factor among competing brands. Acceding to Mudambi, Doyle, and Wong (1997), it helps to differentiate relative product or service of the organization on the basis of tangible quality characteristics. It connotes to the symbolic meanings and perceptual feelings that highlight a specific brand. In this context, Chen (2010) defined green brand image (GBI) as "a set of perceptions of a brand in the mind of a consumer that is linked to environmental commitments and environmental concerns". Brand equity on the other hand is representative of the value of the brand, which is hidden but a distinguished feature of a famous brands (Mohd Yasin, Nasser Noor, & Mohamad, 2007). Bello and Holbrook (1995) provided that brand equity enables the firm to charge more for its better brand name, despite the nature of the product being equal to the alternative available in the market. Brand equity define the attractiveness of the brand to the customer (Keller, 1993), and it could be translated into the superior market performance of the company (Simon & Sullivan, 1993). Chen (2010) defined green brand equity (GBE) as, "a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service". Literature on the issue indicates that better brand image leads towards a higher brand equity (Biel, 1992; Chen, 2010; Faircloth, Capella, & Alford, 2001). Recently, Zameer, Wang, and Yasmeen (2020) noted that GBI reinforces green competitive advantage in the modern corporate world. Chen, Huang, Wang, and Chen (2020) also found a positive impact of GBI on green purchase behavior. Considering these notions, a positive impact of brand image is expected on brand equity.

## 2.3. Green Brand Image and Green Satisfaction

As entailed earlier GBI represents the perceptions of customers on a brand for having environmental concern. While customer satisfaction is related to comparative cognitive processes, comparing the expectations of pleasure with actual consumption experience of a product or service (Kotler, 2009). On the other hand, Blery et al. (2009) provide that customer satisfaction is related to the evaluation of a specific product/ service in context of its ability to fulfill a certain need and expectation of the customer. Chen (2010) elaborated further that green satisfaction as "a pleasurable level of consumption-related fulfillment to satisfy customer's environmental desires, sustainable expectations, and green needs." Various studies have embarked on the value of green marketing and relative establishment of a GBI (Chen, Lai, & Wen, 2006; W. Hu & Wall, 2005). This indicates that customers tend to prefer green products and service over simple products, not having a green image. Previous studies have found a direct link of brand image and customer satisfaction (C.-H. Chang & Tu, 2005). With regard to the green aspect, Lin, Lobo, and Leckie (2019) highlighted that green brand innovativeness could influence green perceived value, which could lead towards green customer loyalty. Further, Bashir, Khwaja, Rashid, Turi, and Waheed (2020) also found that GBI was a significant and positive predictor of green brand trust and green brand loyalty. Recently, Gelderman, Schijns, Lambrechts, and Vijgen (2021) found that green image could contribute towards green satisfaction of the customers, which in turn could improve green customer loyalty. Therefore, following the seminal work of Chen (2010), a positive relationship of green brand image with green customer satisfaction could be expected for this study.

## 2.4. Green Satisfaction and Green Brand Equity

Green satisfaction relates to the green performance of the brand as compared to the expectations of the customer, while GBI is represented by perceived value addition of the brand in environmental context. There is an extensive body of literature that propagates value of the customer satisfaction in context of consumer behavior (C.-H. Chang & Tu, 2005; Martenson, 2007). Mohd Yasin et al. (2007) provided that brand equity is a representation of a positive consumer behavior towards the brand such like preference, customer loyalty and repurchases intent. Pappu and Quester (2006) also indicated that customer satisfaction with a particular brand has favorable outcomes in context of customer perceptions and cognition. Subsequently, Kim, Kim, Kim, and Kang (2008) found a direct association between customer satisfaction and brand equity. Chen (2010), also related green customer satisfaction to green brand equity and found a positive link. Ng, Butt, Khong, and Ong (2014) found that green satisfaction helps to improve green brand equity. Consistent to these notions, a positive association between green satisfaction and GBI is expected here as well.

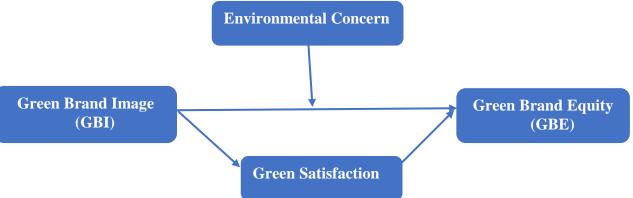
## 2.5. The Role of Environmental Concern

Environmental concern is on rise around the globe. Now days, people are conscious as to whether various corporate players actually adhere to the environmental standards or not. The definition of environmental concern as provided by Said, Paim, and Masud (2003) relates it to the stance, belief, or magnitude of concern a person has for the environment. Chan and Lau (2000) considered it emotional stance of an individual towards the environmental issues. The salient feature of environmental concern is awareness and acknowledgement of the fact that environment in which we live, is in danger and natural resources we use are depleting rapidly (Kalafatis, Pollard, East, & Tsogas, 1999). Due to the environmental concern, people would pay a premium price for the green products (Eurobarometer, 2005; Zarnikau, 2003). Roe, Teisl, Levy, and Russell (2001) elaborated that marketing and branding of green products is the way to go, as environmentally conscious consumers prefer a brand which have green connotations. The notions on the consumption of a green brand are clear and it also helps to translate green aspects of the product/ service into equity of a brand (Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen, 2003). Therefore, purchase intention of the consumer is influenced by their green concerns (Balderjahn, 1988; Bang, Ellinger, Hadjimarcou, & Traichal, 2000). Hansla, Gamble, Juliusson, and Gärling (2008) found that environmental concerns of people are directly and indirectly related to their tendency to pay a premium price. Recently, Kushwah, Dhir, and Sagar (2019) noted that environmental concern moderated the impact of perceived value on ethical consumption intent of organic food consumers. Tandon, Dhir, Kaur, Kushwah, and Salo (2020) considered environmental concern as a moderator to explain consumer behavior pertaining to organic food buying behavior. Yue, Sheng, She, and Xu (2020) maintained that environmental concern was influencing green purchase intentions. Ha (2022) considered green concern as moderator for the impact of greenwashing on green brand equity. They considered legitimacy theory to explain this relationship and found that green concern could negatively impact green brand equity. This implies that environmental concern could help to explain green brand equity, which in turn provide provocation to the consumer to but a green product and a premium price. Thus, environmental concern is considered a moderator in this study.

## 2.6. Theoretical Framework and Hypotheses

This research estimates the impact of GBI on GBE for the banking sector of Pakistan, where green satisfaction is considered as mediator and environmental concern as moderator. The theoretical foundations of this study emerge from the stakeholder theory, where organization is deemed responsible to all of its stakeholders – people who affect or are affected by activities and operations of a business (Freeman, 2010). The theory is often related to the modern conception of CSR, where a business is required to fulfill four obligations: economic, legal, ethical, and philanthropic responsibilities (Brin & Nehme, 2019; Carroll, 2016). The theory also relates to the environmental aspect (Siregar, 2021; Wyszomirski & Olkiewicz, 2020). Corporate environmental concern and corporate social responsibility have largely been argued to sustain competitive advantage for a modern business organization (Dechant & Altman, 1994; Delios, 2010). Such environmental concern and social responsibility also explains green brand equity (Nguyen, Tran, & Do, 2023; Vuong & Bui, 2023). Thus, stakeholder theory explains the environmental aspect and coupled with rising consumer concern explains the need of the organizations to build a green brand equity to ensure long run sustainability and competitiveness of the firm. Considering the discussions in the literature review following model is devised to be tested in this study:





Considering the theoretical framework of the study following hypotheses are proposed to be tested in the study:

- H<sub>1a</sub>: GBI has a positive impact on GBE in case of banking sector of Pakistan.
- H<sub>1b</sub>: GBI has a positive impact on green satisfaction in case of banking sector of Pakistan.
- H<sub>1c</sub>: Green satisfaction has a positive impact on GBE in case of banking sector of Pakistan.
- H<sub>1d</sub>: Green satisfaction plays a mediating role between the relationship of GBI and GBE in case of banking sector of Pakistan.
- $H_{1e} {:} \quad$  Green concern moderates the impact of GBI on GBE in case of banking sector of Pakistan.

# 3. Research Methodology

## 3.1. Research Design

This study employs a survey design, whereby data was collected from the customers of the Allied bank in order to assess the interrelationship of GBI, green customer satisfaction the GBE in Pakistan. Allied bank was chosen because of their green banking initiatives (Allied Bank, n.d.). Survey design accounts for the opinions of the customers and is widely adopted technique of data collection in marketing and management research.

## **3.2.** Instrument Design

The survey design of the study uses questionnaire as a data collection tools, whereby established scales on all three variables of the i.e. GBI, green customer satisfaction and GBE will be asked from customer on likert scale. The questionnaire scales for all of these three variables were adopted from the study of Chen (2010). The adoption of scale from the previous study ensures reliability and validity of the instrument.

## 3.3. Population and Sampling Design

The study considers Allied Bank as case banking brand because of its green banking initiatives. Study population comprised of the customers of Allied Bank in Lahore. Total 300 responses were obtained from customers of Allied Bank. The responses were obtained by visiting the branches of the bank in the city of Lahore. The branches were selected randomly from the list of available branches. A total of ten branches were selected and 30 questionnaires were got filled from each branch.

#### 3.4. Data Analysis

Data for the study was collected and entered into SPSS 20 software and analysis of the data was made through the same software by considering the tools of descriptive statistics, further, AMOS 18 was used for proceeding with structural equation modeling.

## 4. Analysis and Discussion

#### 4.1. Demographics

Table 4.1.1 presents demographical distribution of the respondents. The study considered a total of 300 respondents, out of which 55% were male and 45% were females. Moreover, most of the respondents of the study were between age to 15 to 35 years i.e. 90% indicating a mature respondent base. Further, respondents were also education as indicated by 63% Post Graduate respondents and 19% graduate respondents.

Lastly, most of the respondents had long relationship tenure with Allied Bank. Only 4% had a relationship tenure less than year and 45% had a relationship tenure of more than 4 years, while 29% of respondents had a relationship tenure of 2 to 4 years.

Variable	Categories	Frequency	Percentage
Gender	Male	165	55
	Female	135	45
Age Group	< 15	3	1
(in Years)	15 -25	120	40
. ,	26 - 35	150	50
	35 - 40	21	7
	> 40	6	2
Education	Matric or Below	3	1

#### **Table 1: Demographics**

	Graduate	57	19	
	Post Graduate	189	63	
	Any Other	51	17	
Relationship Tenure	< 1	12	4	
(in Years)	1 - 2	66	22	
	2 - 4	87	29	
	> 4	135	45	

## 4.2. Variable Description

Table 1 presents description of the variables of this study. The minimum value of all of the variables was 1, while maximum value was 5 for all variables expect green brand image. Mean of GBI was 3.812 (std. dev. = .78505), while mean of green satisfaction was 3.88 (std. dev. = .71751), GBE on the other hand yielded a mean of 3.915 (std. dev. = .74557).

Lastly environmental concern had a mean of 3.97 (std. dev. = .76153). Overall, the values indicate that respondents indicated that the bank had good GBI and GBE, while respondents had good levels of green satisfaction and environmental concern.

#### **Table 2: Variable Description**

	N	Minimum	Maximum	Mean	Std. Deviation
Green Brand Image (GBI)	300	1.00	4.80	3.8120	.78505
Green Satisfaction	300	1.00	5.00	3.8800	.71751
Green Brand Equity (GBE)	300	1.00	5.00	3.9150	.74557
Environmental Concern	300	1.00	5.00	3.9700	.76153

## 4.3. Confirmatory Factor Analysis

The results of the confirmatory factor analysis are depicted by table 2 and figure 2, where factor loadings are depicted in the table and figure provides AMOS structural model output.

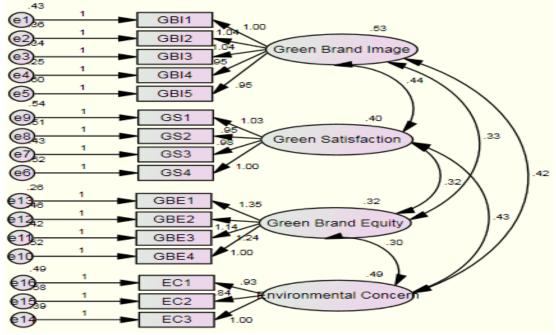
A factor loading of more than .4 is considered appropriate for the item to be part of the construct. All factor loading in the table on the next page are quite higher as compared to the threshold of .4. The minimum factor loading was found to be .84 for item EC2, rest of the values are quite

#### Table 3: Factor Loadings – Confirmatory Factor Analysis

Variable	Item	Factor Loading	
	GBI1	1	
	GBI2	1.041	
Green Brand Image (GBI)	GBI3	1.045	
	GBI4	0.951	
	GBI5	0.953	
	GS1	1.027	
Croop Catiofaction	GS2	0.955	
Green Satisfaction	GS3	0.979	
	GS4	1	
	GBE1	1.348	
Croop Brand Equity (CRE)	GBE2	1.14	
Green Brand Equity (GBE)	GBE3	1.239	
	GBE4	1	
Environmental Concern	EC1	0.926	
	EC2	0.84	
	EC3	1	

higher, which indicates good construct validity of the measures. Same values are depicted by the figure 4.3.1 along with the inter variable correlations, the inter variable correlations are not much higher, the highest covariance was found between green satisfaction and green concern i.e. .43, this indicates a better convergent validity of the scales.

# Figure 2: Confirmatory Factor Analysis



## 4.4. Model Estimation

#### 4.4.1. Estimation of Mediation

Table 1, 2 along with figure 2 provides model estimation using structural equational modeling for testing of mediation of green satisfaction for the relationship of GBI and GBE.

The goodness of fit of the model in structural equation modeling is assessed by Root Measure Square Error Approximation (RMSEA), the value of which is .103 for the model, indicating a mediocre model fitness, values smaller than .06 are indicative of god model fitness (L. t. Hu & Bentler, 1999). Further, Root Mean Square Residual (RMR) is second index of goodness of fit of model, which yielded a value of .043, whereby a value less than .08 is indication of a good model fit (L. t. Hu & Bentler, 1999), deeming the model good fit by this measure.

Goodness of Fit Index (GFI) yielded a value of .895, whereby a value above .9 is deemed acceptable for model finesses (Baumgartner & Homburg, 1996). Normed Fit Index (NFI) of the model yielded a value of .879, whereby values above .95 are acceptable (Baumgartner & Homburg, 1996). Lastly, Comparative Fit Index (CFI) yielded a value of .904, whereby values above .9 are considered good for model fitness (L. t. Hu & Bentler, 1999). Overall, different measures of model fitness indicate towards a mediocre fit of the model.

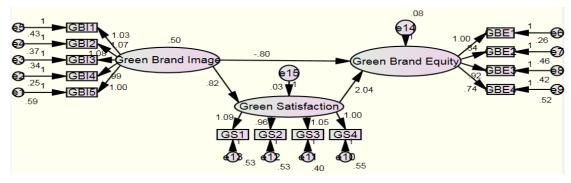
	Mediación	
Measure	Value	
RMSEA	.103	
RMR	.043	
GFI	.895	
NFI	.879	
CFI	.904	

#### Table 4: Model Goodness of Fit – Mediation

Figure 4 provides path diagram of the model, whereby R Square of the model are provided. R Square of green satisfaction estimation is found to be .03, while R-Square of the green brand equity is found to be .08, indicating that variables in their relative model predict 3% and 8% variation in the dependent variables respectively.

Subsequently, table 4 provide path coefficients and their significance. GBI had significant and direct relationship with green satisfaction (Beta = .823), while green satisfaction also had a moderately significant and positive relationship with GBE (Beta = 2.036), indicating that green satisfaction mediates the impact of GBI towards GBE, while the direct impact of GBI on green equity is negative and insignificant. Thus, the mediating impact is confirmed by the findings of the study.

## Figure 3: Path diagram- Mediation



## 4.4.2. Estimation of Moderation

Table 5, 6 along with figure 3 provides model estimation using structural equation modeling for testing of moderation of environmental concern for the relationship between GBI and GBE.

#### Table 5: Path Coefficients – Mediation

			Estimate	S.E.	C.R.	Р
Green Satisfaction	÷	Green Brand Image	0.823	0.085	9.743	***
Green Brand Equity	←	Green Brand Image	-0.802	0.879	-0.913	0.361
Green Brand Equity	÷	Green Satisfaction	2.036	1.055	1.929	0.054

#### Table 6: Model Goodness of Fit – Moderation

Measure	Value
RMSEA	.564
RMR	0
GFI	1
NFI	1
CFI	1

Table 6 provides the goodness of fit measures of the moderation model, whereby RMSEA had a value of .564, which indicates a poor model fil. Further of RMR is 0 and value of FGI, NFI and CFI is 1, which indicate that the model is good fit. Thus, apart from RMESA, other measures indicate towards a good model fil.

#### Figure 4: Path diagram- Moderation

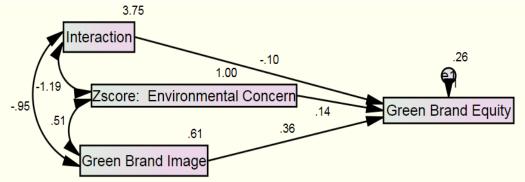


Figure 4 provide the path diagram of the estimated model, whereby R-square of the model is .26, indicating that model explains 26% of the variation in the green brand equity.

## Table 7: Path Coefficients – Moderation

			Estimate	S.E.	C.R.	Р
Green Brand Equity	÷	Green Brand Image	0.361	0.053	6.786	***
Grand Brand Equity	←	Environmental Concern	0.144	0.041	3.479	***
Grand Brand Equity	÷	Interaction Term	-0.1	0.021	-4.786	***

Table 7 provides path coefficients of the moderation model, whereby green brand image had a direct and significant impact on GBE (Beta = .361), while standardized environmental

concern also had a direct a significant impact on GBE (Beta = .144). Lastly interaction term yielded a negative and significant impact on green satisfaction (Beta = -.1). This relationship established the moderation impact, but is inconsistent to our expectations. A logical explanation in this regard could be that people who are more concerned about the environment might see being green as a scan or marketing stunt, rather than being actually green. This might explain a negative moderation of environmental concern.

# 5. Discussion

This study found that GBI leads towards green satisfaction, which in turn affects GBE. Further, environmental concern also moderated the impact of GBI on the GBE to make it negative. The findings are consistent with the available body of the literature, where GBI has been consistently found to contribute towards the GBE (Chen, 2010; Ha, 2022). Thus, building a GBI could yield long term value for the green banks in Pakistan. Subsequently, GBI also had a positive impact on green customer satisfaction (N.-J. Chang & Fong, 2010; Chen, 2010; Solekah, 2019), leading to the GBE (Chen, 2010; Ha, 2022).

Interestingly, green concern moderated the impact of GBI on the GBE to make it negative. This is consistent with the findings of Ha (2022), who found green concern moderated the impact of greenwash on GBE to make it negative. Ha explained that the negative implications of green concern were due to greater understanding of the green concerned customers, who consider all green image building initiative as hoax. Therefore, for people with higher level of green concern, a GBI could actually reduce GBE. Thus, banks must consider legitimacy of their green actions and ensure that green initiative are being deployed for the green cause, and not as marketing stunt.

## 6. Conclusion

There have been a lot of concern on the environmental issues and modern consumer is getting anxious about the nature of the products or services it consumers as to whether such products or services are consistent of environmental notions or not. This study in this regard was conducted to see if green brand image of a bank explains its green brand equity or not. Furthermore, mediating role of green satisfaction and moderating role of environmental concern was also investigated in the study. Findings of the study indicate that green brand image of a bank provoke its green brand equity in the eyes of the consumers, while green satisfaction mediates this impact. These notions are consistent with the past studies on the issues like Chen (2010) found a positive impact of green brand image and green satisfaction on green brand equity.

Further, Namkung and Jang (2013) also related that green practices provoke corporate brand equity in services firm. Traditional marketing literature also supports the notions of a positive impact of brand image on brand equity (Biel, 1992; Chen, 2010; Faircloth et al., 2001) and same goes for customer satisfaction and brand equity (Chen, 2010; Kim et al., 2008). Further, environmental concern in the study was found to alter the relationship between green brand image and green satisfaction from positive to negative. Such findings indicate that consumer with higher environmental concerns might see green initiatives and resulting green brand image as marketing scam and there is a need to address this issues as to how such consumers could better be tackled as to ensure them that green initiatives of the bank are real. Such findings are revealing in nature as these entails that building a green brand image could dissatisfy the green expectations of their environmentally concerned customers. Banks in this regard should devise alternative policies to make sure that their green initiatives are motivated by pure green intentions and their environmentally concerned customers have full confidence over them.

The study had certain limitations, whereby it was only fined to the customers of Lahore and only one bank was selected for the data collection. Subsequent studies could replicate this study to other geographical regions of Pakistan and to other banks. Further, future research should also be conducted to investigate this negative moderation of environmental concern for green brand image and green satisfaction to find implications as to what green brand image building initiatives could raise concern of the environmentally concerned customers.

## References

Alfalah, B. Green Banking.

- Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management, 28*(1), 229-238. doi:https://doi.org/10.1002/csr.2044
- Arrow, K. J. (2007). Global climate change: A challenge to policy. *The Economists' Voice, 4*(3). doi:<u>https://doi.org/10.2202/1553-3832.1270</u>
- Balderjahn, I. (1988). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, *17*(1), 51-56. doi:<u>https://doi.org/10.1016/0148-2963(88)90022-7</u>
- Bang, H. K., Ellinger, A. E., Hadjimarcou, J., & Traichal, P. A. (2000). Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory. *Psychology & Marketing*, 17(6), 449-468. doi:<u>https://doi.org/10.1002/(SICI)1520-6793(200006)17:6%3C449::AID-</u> MAR2%3E3.0.CO;2-8
- Bashir, S., Khwaja, M. G., Rashid, Y., Turi, J. A., & Waheed, T. (2020). Green brand benefits and brand outcomes: The mediating role of green brand image. *Sage Open, 10*(3), 2158244020953156. doi:<u>https://doi.org/10.1177/2158244020953156</u>
- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International journal of Research in Marketing*, 13(2), 139-161. doi:<u>https://doi.org/10.1016/0167-8116(95)00038-0</u>
- Bello, D. C., & Holbrook, M. B. (1995). Does an absence of brand equity generalize across product classes? *Journal of Business Research*, *34*(2), 125-131. doi:https://doi.org/10.1016/0148-2963(95)00008-G
- Bhardwaj, B. R., & Malhotra, A. (2013). Green banking strategies: sustainability through corporate entrepreneurship. *Greener Journal of Business and Management Studies*, *3*(4), 180-193.
- Biel, A. L. (1992). How brand image drives brand equity. *Journal of advertising research*, *32*(6), 6-12.
- Blery, E., Batistatos, N., Papastratou, E., Perifanos, I., Remoundaki, G., & Retsina, M. (2009). Service quality and customer retention in mobile telephony. *Journal of Targeting, Measurement and Analysis for Marketing,* 17, 27-37. doi:https://doi.org/10.1057/jt.2008.26
- Brin, P., & Nehme, M. N. (2019). Corporate social responsibility: analysis of theories and models.
- Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *International journal of corporate social responsibility*, 1(1), 1-8. doi:<u>https://doi.org/10.1186/s40991-016-0004-6</u>
- Chan, R. Y., & Lau, L. B. (2000). Antecedents of green purchases: a survey in China. *Journal of consumer marketing*, *17*(4), 338-357. doi:https://doi.org/10.1108/07363760010335358
- Chang, C.-H., & Tu, C.-Y. (2005). Exploring store image, customer satisfaction and customer loyalty relationship: Evidence from Taiwanese hypermarket industry. *Journal of American Academy of Business*, 7(2), 197-202.
- Chang, N.-J., & Fong, C.-M. (2010). Green product quality, green corporate image, green customer satisfaction, and green customer loyalty. *African journal of business management*, *4*(13), 2836.
- Chen, Y.-S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business ethics*, 93, 307-319. doi:https://doi.org/10.1007/s10551-009-0223-9
- Chen, Y.-S., Huang, A.-F., Wang, T.-Y., & Chen, Y.-R. (2020). Greenwash and green purchase behaviour: the mediation of green brand image and green brand loyalty. *Total Quality Management* & *Business Excellence*, *31*(1-2), 194-209. doi:https://doi.org/10.1080/14783363.2018.1426450
- Chen, Y.-S., Lai, S.-B., & Wen, C.-T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business ethics*, 67, 331-339. doi:<u>https://doi.org/10.1007/s10551-006-9025-5</u>
- Dechant, K., & Altman, B. (1994). Environmental leadership: from compliance to competitive advantage. *Academy of Management Perspectives*, 8(3), 7-20.

- Delios, A. (2010). How can organizations be competitive but dare to care? *Academy of Management Perspectives*, 24(3), 25-36. doi:<u>https://doi.org/10.5465/amp.24.3.25</u>
- Desk, N. (2016). Green Banking system introduced in Pakistan. . The Times of Islamabad.
- Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can sociodemographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, *56*(6), 465-480. doi:<u>https://doi.org/10.1016/S0148-2963(01)00241-7</u>

Eurobarometer, S. (2005). Attitudes towards Energy. In: Luxembourg.

- Faircloth, J. B., Capella, L. M., & Alford, B. L. (2001). The effect of brand attitude and brand image on brand equity. *Journal of marketing theory and practice*, 9(3), 61-75. doi:<u>https://doi.org/10.1080/10696679.2001.11501897</u>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*: Cambridge university press.
- Gelderman, C. J., Schijns, J., Lambrechts, W., & Vijgen, S. (2021). Green marketing as an environmental practice: The impact on green satisfaction and green loyalty in a business-to-business context. *Business strategy and the environment, 30*(4), 2061-2076. doi:<u>https://doi.org/10.1002/bse.2732</u>
- Gutierrez, A. V. (2016). *Green Banking: A proposed model for green housing loan.* Paper presented at the 2016 International Conference on Industrial Engineering, Management Science and Application (ICIMSA).
- Ha, M.-T. (2022). Greenwash and green brand equity: The mediating role of green brand image, green satisfaction, and green trust, and the moderating role of green concern. *Plos One*, *17*(11), e0277421. doi:<u>https://doi.org/10.1371/journal.pone.0277421</u>
- Hansla, A., Gamble, A., Juliusson, A., & Gärling, T. (2008). The relationships between awareness of consequences, environmental concern, and value orientations. *Journal of environmental psychology*, 28(1), 1-9. doi:<u>https://doi.org/10.1016/j.jenvp.2007.08.004</u>
- Hu, H.-H., Parsa, H., & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, *51*(3), 344-362. doi:<u>https://doi.org/10.1177/1938965510370564</u>
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55. doi:<u>https://doi.org/10.1080/10705519909540118</u>
- Hu, W., & Wall, G. (2005). Environmental management, environmental image and the competitive tourist attraction. *Journal of sustainable tourism*, 13(6), 617-635. doi:<u>https://doi.org/10.1080/09669580508668584</u>
- Ibe-enwo, G., Igbudu, N., Garanti, Z., & Popoola, T. (2019). Assessing the relevance of green banking practice on bank loyalty: The mediating effect of green image and bank trust. *Sustainability*, 11(17), 4651. doi:<u>https://doi.org/10.3390/su11174651</u>
- Julia, T., & Kassim, S. (2020). Exploring green banking performance of Islamic banks vs conventional banks in Bangladesh based on Maqasid Shariah framework. *Journal of Islamic Marketing*, *11*(3), 729-744. doi:<u>https://doi.org/10.1108/JIMA-10-2017-0105</u>
- Junior, S. S. B., da Silva, D., Gabriel, M. L. D., & de Oliveira Braga, W. R. (2015). The effects of environmental concern on purchase of green products in retail. *Procedia-Social and Behavioral Sciences*, *170*, 99-108.
- Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of consumer marketing*, 16(5), 441-460.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of marketing*, *57*(1), 1-22.
- Kim, K. H., Kim, K. S., Kim, D. Y., Kim, J. H., & Kang, S. H. (2008). Brand equity in hospital marketing. *Journal of Business Research*, 61(1), 75-82. doi:https://doi.org/10.1016/j.jbusres.2006.05.010
- Kotler, P. (2009). *Marketing management: A south Asian perspective*: Pearson Education India.
- Kushwah, S., Dhir, A., & Sagar, M. (2019). Ethical consumption intentions and choice behavior towards organic food. Moderation role of buying and environmental concerns. *Journal of cleaner production, 236*, 117519. doi:<u>https://doi.org/10.1016/j.jclepro.2019.06.350</u>
- Lam, H., & Yeung, A. (2015). The Abnormal Returns of Corporate Environmental Initiatives in China: A Customer Awareness Perspective. Paper presented at the Proceedings of International Academic Conferences.
- Li, G., Li, J., & Sun, X. (2019). Measuring green brand equity in relationship interactions and its impact on brand loyalty. *Revista de Cercetare Si Interventie Sociala, 66*, 278-297.

- Lin, J., Lobo, A., & Leckie, C. (2019). The influence of green brand innovativeness and value perception on brand loyalty: the moderating role of green knowledge. *Journal of Strategic Marketing, 27*(1), 81-95. doi:https://doi.org/10.1080/0965254X.2017.1384044
- Martenson, R. (2007). Corporate brand image, satisfaction and store loyalty: A study of the store as a brand, store brands and manufacturer brands. *International journal of retail & distribution management, 35*(7), 544-555. doi:https://doi.org/10.1108/09590550710755921

Masukujjaman, M., & Aktar, S. (2013). Green banking in Bangladesh: A commitment towards the global initiatives. *Journal of Business and Technology (Dhaka), 8*(1-2), 17-40.

- Millat, K. M., Chowdhury, R., & Singha, E. A. (2013). *Green Banking in Bangladesh: fostering environmentally sustainable inclusive growth process*: Department of Communications and Publications, Bangladesh Bank Dhaka, Bangladesh.
- Mohd Yasin, N., Nasser Noor, M., & Mohamad, O. (2007). Does image of country-of-origin matter to brand equity? *Journal of Product & brand management, 16*(1), 38-48. doi:<u>https://doi.org/10.1108/10610420710731142</u>
- Mudambi, S. M., Doyle, P., & Wong, V. (1997). An exploration of branding in industrial markets. *Industrial marketing management, 26*(5), 433-446. doi:https://doi.org/10.1016/S0019-8501(96)00151-4
- Namkung, Y., & Jang, S. S. (2013). Effects of restaurant green practices on brand equity formation: Do green practices really matter? *International Journal of Hospitality Management*, 33, 85-95. doi:<u>https://doi.org/10.1016/j.ijhm.2012.06.006</u>
- 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. doi:<u>https://doi.org/10.1007/s10551-013-1689-z</u>
- Nguyen, T. H. N., Tran, N. K. H., & Do, K. (2023). An empirical research of corporate social responsibility on creating the green brand equity: An exploratory of Vietnamese consumers' perception in the bank industry. *Corporate Social Responsibility and Environmental Management*, *30*(3), 1292-1299. doi:<u>https://doi.org/10.1002/csr.2419</u>
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and behavior*, *41*(5), 715-740. doi:<u>https://doi.org/10.1177/0013916508318748</u>
- Oyegunle, A., & Weber, O. (2015). Development of sustainability and green banking regulations: existing codes and practices.
- Pappu, R., & Quester, P. (2006). Does customer satisfaction lead to improved brand equity? An empirical examination of two categories of retail brands. *Journal of Product & brand* management, 15(1), 4-14. doi:<u>https://doi.org/10.1108/10610420610650837</u>
- Park, H., & Kim, J. D. (2020). Transition towards green banking: role of financial regulators and financial institutions. Asian Journal of Sustainability and Social Responsibility, 5(1), 1-25. doi:<u>https://doi.org/10.1186/s41180-020-00034-3</u>
- Rahman, M. M., Ahsan, M. A., Hossain, M. M., & Hoq, M. (2013). Green banking prospects in Bangladesh. *Asian Business Review*, 2(2).
- Rehman, A., Ma, H., & Ozturk, I. (2021). Do industrialization, energy importations, and economic progress influence carbon emission in Pakistan. *Environmental Science and Pollution Research*, 28, 45840-45852. doi:<u>https://doi.org/10.1007/s11356-021-13916-4</u>
- Roe, B., Teisl, M. F., Levy, A., & Russell, M. (2001). US consumers' willingness to pay for green electricity. *Energy policy, 29*(11), 917-925. doi:<u>https://doi.org/10.1016/S0301-4215(01)00006-4</u>
- Said, A. M., Paim, L. H., & Masud, J. (2003). Environmental concerns, knowledge and practices gap among Malaysian teachers. *International Journal of Sustainability in higher education*, *4*(4), 305-313. doi:<u>https://doi.org/10.1108/14676370310497534</u>
- Shakil, M. H., Azam, M. K. G., & Raju, M. S. H. (2014). An evaluation of green banking practices in Bangladesh. *European Journal of Business and Management*, 6(31), 8-16.
- Simon, C. J., & Sullivan, M. W. (1993). The measurement and determinants of brand equity: A financial approach. *Marketing science, 12*(1), 28-52. doi:<u>https://doi.org/10.1287/mksc.12.1.28</u>
- Singhal, K., Singhal, K., & Arya, M. (2014). Green banking: An overview. Asian Journal of Multidisciplinary Studies, 2(6), 196-200.
- Siregar, I. (2021). CSR-based corporate environmental policy implementation. *British Journal* of Environmental Studies, 1(1), 51-57.

- Solekah, N. A. (2019). The effect of green banking product and green corporate image on green customers loyality in green customers satisfaction syariah banking mediation. *Management and Economics Journal (MEC-J), 3*(1), 81-94.
- Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Behavioral reasoning perspectives on organic food purchase. *Appetite*, *154*, 104786. doi:<u>https://doi.org/10.1016/j.appet.2020.104786</u>
- Thombre, K. (2011). The new face of banking: Green banking. *Research Paper–Commerce*, 1(2), 1-4.
- Vuong, T. K., & Bui, H. M. (2023). The role of corporate social responsibility activities in employees' perception of brand reputation and brand equity. *Case Studies in Chemical* and Environmental Engineering, 7, 100313. doi:https://doi.org/10.1016/j.cscee.2023.100313
- Wyszomirski, A., & Olkiewicz, M. (2020). Environmental corporate social responsibility as a tool for creating the future of environmental protection. *Rocznik Ochrona Środowiska, 22*, 1145-1161.
- Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of consumer environmental responsibility on green consumption behavior in China: The role of environmental concern and price sensitivity. *Sustainability*, 12(5), 2074. doi:<u>https://doi.org/10.3390/su12052074</u>
- Zameer, H., Wang, Y., & Yasmeen, H. (2020). Reinforcing green competitive advantage through green production, creativity and green brand image: implications for cleaner production in China. *Journal of cleaner production, 247*, 119119. doi:https://doi.org/10.1016/j.jclepro.2019.119119
- Zarnikau, J. (2003). Consumer demand for 'green power'and energy efficiency. *Energy policy*, *31*(15), 1661-1672. doi:<u>https://doi.org/10.1016/S0301-4215(02)00232-X</u>