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# Mediation role of Customer Trust and Satisfaction on Green Banking and Customer Loyalty

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## ARTICLE DETAILS ABSTRACT

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*Green Banking Practices and Products, Green Banking Financing Projects, Customer Trust, Customer Satisfaction, Customer Loyalty, Environmental Friendly*

The green banking approach is introduced by banks to protect the environment, for the sake of improving tourism and hospitality, from degradation as banks are the main source of funding in the economy so banks take initiatives to benefit the environment by providing green banking initiatives as banks provide funds to different sectors that also include those at are producing harmful elements and products that destroy the environment so the bank step forward introduces green banking as the bank stakeholders are customers so it is important to understand their point of view about this initiative taken by banks are they satisfy with a bank and trust the banks that they are taking a right decision because this satisfaction and trust lead towards customer loyalty. So this study analyzes the impact of green banking practices and products and green financing projects on customer loyalty through customer trust and customer satisfaction. The two green banking aspects: operations related to banks' internal operation practices and customer-related that include green banking products, and green banking financing projects that are socially responsible projects of banks are analyzed separately which is missing in the existing literature. Data were collected from respondents through structured questionnaires using convenience sampling covering the area of Lahore, Pakistan, and analyzed the data using PLS (SEM). The results show a full mediation relationship between green banking financing projects and customer loyalty through customer satisfaction and all other hypotheses are accepted by partial mediation. This study contributes to the existing literature by adding customers' perspectives on the green banking approach.



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## Introduction:

In the last few years, ecological issues awareness has been spreading which the world is facing like climate change. Recent advancements in technologies and human development in the industrial sector are the reasons for climate change, too much carbon footprint emission in the environment causes global warming, ozone depletion, and other pollutants that can ultimately affect human livelihoods, and it is a very alarming situation. As a result, these environmental problems have attracted many scholars and practitioners' attention as the awareness is being built at the micro as well as macro-level all over the world, and researchers are engaged in finding the remedy to this current issue by adopting measurements to solve environmental pollution and these measurements are prescribed at individuals and corporate level. Considering this corporate world is involved in those activities that create a positive effect on the environment including corporate social responsibility. Therefore, the financial institutions also came forward. As the main driver in each economy's financial system is a bank (Samina & Hossain, 2019). As the banking sector is the central financial intermediary system of financing and investing so they come forward to play their role in saving nature. According to the conventional banking system, banks invest in those projects that provide more profitability by neglecting the environmental problems of those projects that can harm the environment (Linh & Anh, 2017). Now commercial banks take action to solve these environmental problems and move toward a green banking approach. Therefore, the banks step forward and introduce a green banking approach. Green banking refers to a banking system that promotes environmental sustainability by incorporating green practices in its operations, products, and services (Herath & Herath, 2019).

Banks play the role of socially responsible corporate citizens (SRCC) and adopt an environment-friendly approach by reducing the influence of their internal activities on the environment and the external effect because of their customer's activities. The impact of green banking on customer loyalty can be significant, as customers today are increasingly aware of environmental issues and are looking for businesses that align with their values. (Shayana, Raj, & Rai, 2017)

By prioritizing environmental sustainability, a bank can foster customer loyalty through the establishment of trust and credibility. When a bank demonstrates a strong dedication to addressing environmental concerns, customers perceive it as a responsible and ethical institution. As a result, their satisfaction and loyalty towards the bank increase, leading to a higher likelihood of continued usage of the bank's products and services, as well as positive word-of-mouth recommendations to others (Sun et al., 2020). Furthermore, customer loyalty encompasses various elements such as trust, satisfaction, commitment, product features, and quality, making it a crucial factor for retaining customers (Mahmud & Gope, 2012).

According to Fernando & Fernando (2017) green banking consists of two aspects; first is in-house green banking which includes banking internal activities producing a clean banking environment, waste management, installation of the solar system, using high-mileage cars, less paper usage, organizing online meetings and others aspect is outhouse green banking that further includes green banking products includes electronic and online banking, green credits cards another outhouse green banking aspect is green financing by funding green projects such as bio-fertilizer plants, biogas plants, and other solar and renewable energy plants, etc.

The adoption of green banking practices offers customers the chance to actively participate in environmentally conscious actions, including opting for paperless statements or investing in eco-friendly initiatives. These opportunities for engagement contribute to the reinforcement of

customer loyalty, as they foster a shared set of values and principles between the bank and its customers (Sun et al., 2020).

However, it is important to note that the impact of green banking on customer loyalty may vary depending on the bank's overall reputation, the extent to which it incorporates green practices, and the effectiveness of its communication with customers. Additionally, while customers may value green banking, other factors such as competitive pricing, convenience, and customer service may also influence their loyalty.

With the increase in awareness of the banking green approach, many scholars have analyzed topics in several areas, like green banking development in the way of sustainability (Ullah, 2020), Customer green knowledge, and green attitude (Amoako, Dzogbenuku, and Abubakari, 2020), green banking performance, green banking practices adoption and environment improvement through initiative programs taken by green banking (Soumya, 2019) but there were very few studies on customer perception about green banking approach. According to Ibe-Enwo, Igbudu, Garanti, & Popoola (2019) green banking significance is increasing with time because now customer is willing to accept this approach but there is limited research on green banking daily operations and products and financing projects toward customer loyalty mediated by customer satisfaction, and trust. So there is a knowledge gap that is going to be filled in this study. So the purpose of this research is to examine the bank's green operational activities and green products, and financing projects and their influence on the loyalty of customers via mediating effect of customers' trust and satisfaction customers to analyze are customers satisfied with this approach or wanted to be part of this green approach by retaining with those banks that offer green banking which includes the bank's daily operations and products offered by the banks and green banking financial projects offered by the banks as it plays a role of the socially responsible corporate sector. So the bank's daily activities processes and operations run inside the bank which are banks' green practices and green banking products offered to their customers and the green investment by providing loans to their customers were studied to examine the customer perspective about banks' green approach.

## **Literature Review**

### **Green Banking Practices and Products and Customer Loyalty Mediated by Customer Trust & Hospitality**

Green banking acts as an essential role in creating awareness that develops in the domains of environmental problems, funds operations, and the development of economic sustainability of any country (Khairunnessa, Vazquez-Brust, & Yakovleva, 2021). The hospitality and tourism sector is a sizable one that encompasses all commercial pursuits that either directly or indirectly support or are supported by travel and tourism. Hotels & Resorts are included in this industry segment. eateries and catering. Bars and nightclubs (O'Connor, P., & Murphy, J.2004) . The green banking concept was established by a Dutch bank at Triodos Bank in 1980 and started environmental sustainability in the banking sector. Then in 1990, banks launch green funds for financing

environmentally friendly projects taking it as an example all over the world banks are moving towards green banking (Shaumya & Arulrajah, 2016) and in 2009 state bank of Florida implement this concept (Sharma & Choubey, 2022).

As stated by (Bukhari, Hashim, & Amran, 2020) green banking is not just a green approach in the banks it's a transformation of the banking system. In 2012 the adoption of the green banking approach gained motivation in developing countries by forming the Sustainable Banking Network (SBN) by the International Finance Corporation (IFC). It was established to enable green banking acceptance in emerging countries.

Now the bank's shifts toward digital banking systems offer online and mobile-based facilities that minimize environmental impacts, developing green banking products that will be provided digitally avoiding the paperwork. Green banking products include green loans, deposits, and green credit and debit cards offering internet banking facilities to customers (Shantha, 2019). This means there is no need to physically visit the banks; transactions are done through online systems.

Besides these implementing green product might be favorable to banks and investors as the green banking approach increase operational efficiencies and reduced the cost of banking and chances of fraud as bank shift their internal operation activities and policies towards green by utilizing less paper and introducing a computerized system in branches and convert bank buildings into green buildings. Moreover, Green funding is measured as a dynamic tool for strengthening durable relationships among banks and investors (Falcone, 2018).

Green banking practices and products affect customer behavior and intention of repurchasing from green banks; green products built trust that customer deposits are spent for societal benefits. According to Shantha, 2019 customer buying behavior is affected by customer trust that is built by experiencing and if the experience is good they repurchase. Trust is a vital element to gain customer loyalty as previous researchers show an association between customer trust and loyalty (Islam, Pitafi, Xiaobei, Rehmani, Irfan, & Mubarak, 2021). As stated by Li, Teng, & Chen (2020) those customers who develop trust in brands tend to develop greater customer loyalty. This means that customers' purchasing behavior has a positive impact on consumer trust and when customers develop trust in the bank, they are the possibility of loyalty towards the bank.

**H1: There is a significant positive impact of Green banking practices and products on customer loyalty in hospitality industry mediated by customer trust.**

### **Green Banking Financing Projects and Customer Loyalty Mediated By Customer Trust**

According to Ibe-Enwo, Igbudu, Garanti, & Popoola (2019) to improve the relationship between customer and company, loyalty is an essential element that depends on the fulfillment of customer desires, needs, and interests that are important business strategies of the bank.

To attain customer loyalty by practicing the green banking approach banks need to know the relations between green practices, financial performance, and customer loyalty as a green practice is considered a necessary strategy that can improve green financial performance that influences customer loyalty.

Also to sustain the relationship between banks and customers, trust is an important factor. Current investors not only rely on banks for their investment or deposit safety but also overlook that the investment is being used to develop living standards and environmental and societal benefits. This means now a day customers not only deposit their investments in banks but also consider a banking approach to spending their deposits to improve their living standards. Thus those banks that

provide green financing projects develop the trust of the customer and built a relationship between them to make loyal as they are confident that their investment is safe.

Customer perception about brand projects has a significant impact on customer loyalty. Nowadays when discussing the influence of banks' green financing projects customers prefer those banks that are committed and more responsible for environmental protection (Ibe-enwo, Igbudu, Garanti, & Popoola, 2019). This means that customer wants to rely on those banks that care about environmental preservation and the reduction of external carbon emissions. Hence the bank's green approach to environmental safety enhances the relationship between customer trust, loyalty, and green financing projects.

**H2: There is a significant impact of Green banking financing projects on customer loyalty concern with environment mediated by customer trust.**

### **Green Banking Practices and Product and Customer Loyalty Mediated by Customer Satisfaction**

Green banking introduces paperless platforms and technology-based services and plays the role of the responsible institution in minimizing environmental impact. In this way, the banking green approach leads banks towards satisfaction of customers which leads to customer loyalty. Solekah (2019) stated that to satisfy the customer and its influence on customer loyalty starting point is the quality of the product including its features, design, and packaging that satisfy customer needs. High quality of products leads to a high satisfaction level; satisfaction is the assessment of the product to fulfill the desired demands of the customer. Also, loyal customers are less intent on other products provide by rival brands in the market.

The main achievement and failure of the bank are affected by customer satisfaction and loyalty so banks must comprehend the green banking approach (Igbudu, Garanti, Popoola, 2018). Therefore, banks need to realize the necessity for green products because it will affect customer satisfaction and loyalty. With the development of conservationism, customers are willing to buy a green product with high quality and low environmental impact so the banks offer green products that minimize the carbon effect and satisfy the customer by providing not only financial services but making efforts for the betterment of mankind by installing green activities inside the bank. Thus, Green banking practices and products influence customer loyalty through satisfaction.

**H3: The Customer satisfaction mediates the relationship between Green banking practices and hospitality and customer loyalty.**

### **Green Banking Financing Project and Customer Loyalty Mediated By Customer Satisfaction**

According to Ibe-enwo, Igbudu, Garanti, & Popoola (2019), the main characteristic of the banking green approach in financing clean energy projects is by adopting the latest innovative technologies and techniques. So to improve environmental issues like climate change, renewable energy development is considered an important financial improvement offers by green banks to reduce external carbon emissions (Ji, Zhang, 2019).

Green banks decrease the cost of energy investments for the customers and invest in less carbon economy projects by consuming customers financing in aiding private sectors in improving technologies for energy projects. As stated by Shaumya, & Arulrajah, (2016), green banking promotes social responsibility to reduce carbon emissions by considering those projects that are pollution-minimizing and environmentally friendly. Green banking not only demonstrates the

bank is ethical but also that green projects help in retaining and attracting new customers (Bouteraa, bin Raja Hisham, & Zainol, 2020).

According to Sun, Rabbani, Ahmad, Sial, Cheng, Zia-Ud-Din, & Fu, (2020) customers are willing to learn new aspects of green banking and concerned about bank green activities; these initiatives enhance customer satisfaction that leads to customer loyalty because satisfaction enhances consumer loyalty as a foundation of a long-term revenue generator for brands.

**H4: The Customer satisfaction mediates the relationship between Green banking financing projects and customer loyalty.**

### CONCEPTUAL FRAMEWORK

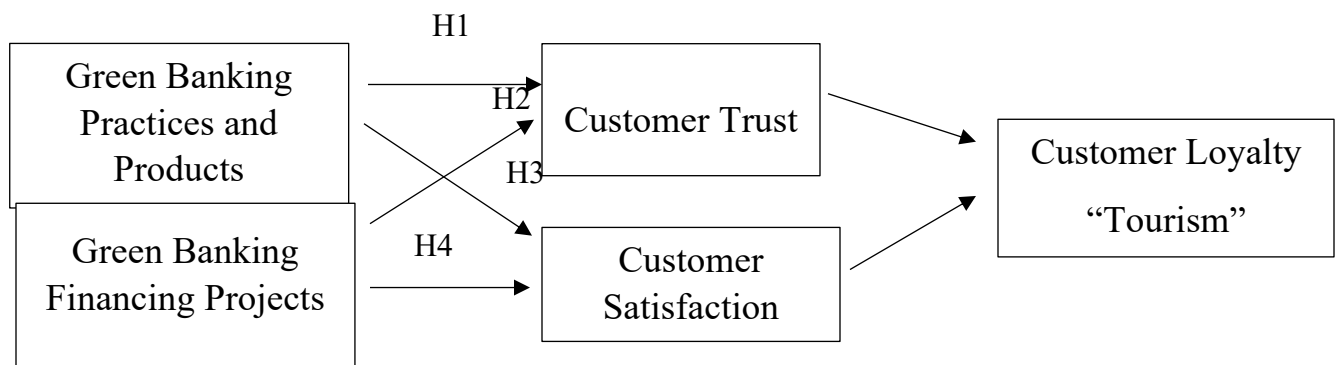


Figure 1 Proposed model

### Research Methodology

#### Sample and Procedure:

The quantitative research methodology is used to research. Data is collected from customers getting banks' green products and financing project services and observing banks' internal practices. The survey technique is used to collect data as it is the fastest and cheapest method to collect massive data in a short period. An online survey is prepared on Google forms as it is an easy way to send surveys to required samples through emails and other digital ways.

So the data is collected from customers of Lahore region (with the help of tourism industry in local market) banks through Emails and other digital means. Smart PLS (Partial least squares) was used as a technique to analyze data as it is applied in business and social sciences. PLS (SEM) structural equation modeling was used to analyze the proposed model and to uncover the relationship between Green Banking Practices and Products, Green Banking Financing Projects, Customer Satisfaction, Customer Trust, and Customer Loyalty as I wanted to measure the dependent variable that is influenced by an independent variable through a mediator. According to Preacher and Hayes (2008), PLS-SEM bootstrapping techniques are a suitable technique for assessing indirect effects in mediation models and it is recommended for measuring mediation relationship analysis. Another advantage of choosing PLS (SEM) was to analyze the small sample size. The survey questionnaire was sent to a total of 94 respondents and got 56 responses which means the response rate is 59% which is sufficient for hypothesis testing in PLS. According to Chin and Newsted 1999, the minimum sample size require to run Smart PLS should be ten times greater than the dependent variable influenced by the independent variable in the proposed model.

The maximum numbers of independent variables (Green Banking Practices and Products and Green Banking Financing Projects) in the model of this study are only two that influence the dependent variable (Customer Loyalty) which means only 20 sample size is required. Hair et al. (2006) stated sample size of 50 respondents gives a valid result in PLS-SEM. Thus the sample size of 56 respondents to draw results fulfil the requirement.

**Table 1: Response from respondents**

Response	Frequency/Rate
Total questionnaires distributed	94
Total questionnaires returned	56
Total response rate	59%

The demographic information of the surveys is presented in Table 3 the results show that 25% of the respondents were males and 42% were females. The majority of the respondent's age lied between 18-28. With regards to marital status, 64.3% of respondents were unmarried and 35.7% were married. Among the respondents, 64.3% lived in a nuclear family and 35.7% had a joint family system. In addition 17.9% respondents income ranges between 10000-30000, 26.8% ranges between 30001-50000, 16.1% ranges between 50001-70000, 21.4% had more than 70000 income, 17.9% had income greater than 100000.

**Table 2: Demographic information of Respondents**

Variables	Items	Frequency(N)	Percentage (%)
Gender	Male	14	25.0
	Female	42	75.0
Age(years)	18-28	39	69.6
	29-39	9	16.1
	40-50	5	8.9
	50 and onwards	3	5.4
Marital Status	Single	36	64.3
	Married	20	35.7

Family Type	Nuclear	36	64.3
	Joint	20	35.7
Income	10000-30000	10	17.9
	30001-50000	15	26.8
	50001-70000	9	16.1
	More than 70000	12	21.4
	100000 and onwards	10	17.9

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*INSTRUMENT*

An instrument is a device used to collect data. In this study, a survey is used as an instrument type to test the hypothesis proposed in this study because Questionnaire items are adapted from different studies so that their validity and reliability are reserved. Green Banking Practices and Products are measured using an adapted scale from (Nilsson & Schwerin, 2019); (Shaumya & Arulrajah, 2016). Green Banking Financing Projects scales are adapted from (Hoque, Mowla, Uddin, Mamun, & Uddin, 2019); (Shaumya & Arulrajah, 2016); (Zhang, Wang, Zhong, Yang, & Siddik, 2022). Customer Satisfaction and Customer Trust scales are adapted from (Kang & Hur, 2012) and Customer Loyalty scales are adapted from (Kang & Hur, 2012); (Chen Y. S., 2013). All items are measured through the Likert scale from Strongly Disagree to Strongly Agree 1 to 5 to increase the response rate and quality of responses.

**Table 3: *References of constructs***

Variables	References of scales
Green Banking Practices and Products	(Nilsson & Schwerin, 2019) (Shaumya & Arulrajah, 2016)



Green Banking Financing Projects	(Hoque, Mowla, Uddin, Mamun, & Uddin, 2019) (Shaumya & Arulrajah, 2016) (Zhang, Wang, Zhong, Yang, & Siddik, 2022)
Customer Satisfaction (hospitality)	(Kang & Hur, 2012)
Customer Trust (Toursim)	(Kang & Hur, 2012)
Customer Loyalty	(Kang & Hur, 2012) (Chen Y. S., 2013)

**Table 4:** *Definition of constructs*

Constructs	Definitions
Green Banking Practices	Green banking practices are the daily green operations of the bank to make a bank environment friendly (Shaumya & Arulrajah, 2016)
Green Banking Products	Green Banking Products contain different aspects as social, environmental, and ethical as these green products offered by banks focus on green loans and green cards, etc. (Nilsson & Schwerin, 2019).
Green Financing Projects	Zhang, Wang, Zhong, Yang, & Siddik, (2022) stated green finance is a financial phenomenon that provides financial rewards and protects the environment, offering eco-friendly projects and supporting the organizations that endorse environmental protection.

Customer Satisfaction	Green satisfaction is a fulfillment of demand to satisfy a customer's environmental interests and sustainable or green needs and expectations, the feeling of joy and happiness is defined as the satisfaction of customers (Kang & Hur, 2012).
Customer Trust	Kang & Hur, (2012) stated green trust is the tendency to have faith in a product, service, or organization by believing or having expectations of it which result in the reliability, goodwill, and environmental performance of the brand.
Customer Loyalty	Loyalty is defined as the rebuying behavior driven due to strong environmental intentions and green commitment toward a product, a service, a company, a brand, etc. (Chen, 2013).

### ANALYSIS & FINDINGS

As this study has four hypotheses as shown in Table 8 the purpose of this study is to analyze green banking practices and products and green banking financing projects' effects on customer loyalty through customer trust and customer satisfaction so the reliability and validity of all constructs were measured using Smart PLS and the results showed the questionnaire was reliable and valid. Validity was measured using Fornell-Larcker Criterion Discriminant Validity model and reliability was measured by analyzing Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) then we measured R- square which showed that 75.8% variance was described as a dependent variable which is customer loyalty by two independent variables which was green banking practices and products and green financing projects. Similarly, 51.7% variance was shown in customer satisfaction and 61.5% variance in customer trust. The results show green banking practices and products related to customer trust were significant but then customer trust relation with customer loyalty were insignificant it may be possible that the result came significant if we measure customer trust and customer loyalty in different situations. So hypothesis 1 is supported as results show partial mediation between green banking practices and product and customer loyalty mediated by customer trust.

Then the second hypothesis in which green banking financing project is significant with customer trust and then again customer trust relation is insignificant with customer loyalty so partial mediation occurs so the H2 is also supported. The third hypothesis is supported in which green banking practices and products and customer satisfaction have an insignificant relationship and then customer satisfaction relation with customer loyalty is significant but VAF value shows that mediation exists. The last hypothesis that is H4 shows that the green banking financing project and customer satisfaction relationship is significant and customer satisfaction relation with customer loyalty is significant so this hypothesis is also supported. According to Andrew F. Hayes if the one path (a or b) in indirect effect is significant then the indirect effect in mediation analysis is significant so the indirect effect in H1 and H2 shows insignificant results in the b path between customer trust and customer loyalty have significant indirect effect and H3 that shows the

insignificant path a between green banking practices and product and customer satisfaction also shows significant indirect effect.

### *Measurement Model*

To measure discriminant validity, Average Variance Extracted (AVE) was examined using the Fornell- Larcker Criterion in which the AVE of each construct is compared with its squared correlation with the other constructs. As discriminant validity is measured to analyze the overlapping between the scales to measure the construct. In table 5 the values of AVE square root and other constructs correlations are shown in diagonal form. The square root of AVE is larger than inter construct correlation in each case besides GBPP and GBFP which shows sufficient discriminant validity (Hair et al. 2016) in the case of Green Banking Financing Projects and Green Banking Practices and Products the values are overlapping because data is collected from the same sample which is customers to analyze their loyalty another reason is that GBFP and GBPP laid under Green Banking Initiatives as a study conducted by (Herath & Herath, 2019) measure GBFP and GBPP collectively under one name as green banking initiative as there is some similarity in these two independent variables as these two services are provided by green banks for environment protection so they overlap.

**Table 1:** *Fornell- Larcker Criterion Discriminant Validity*

	CL	CS	CT	GBFP	GBPP
Customer Loyalty	0.893				
Customer Satisfaction	0.861	0.939			
Customer Trust	0.796	0.869	0.889		
Green Banking Financial Projects	0.589	0.715	0.745	0.782	
Green Banking Practices and Products	0.529	0.629	0.752	0.823	0.714

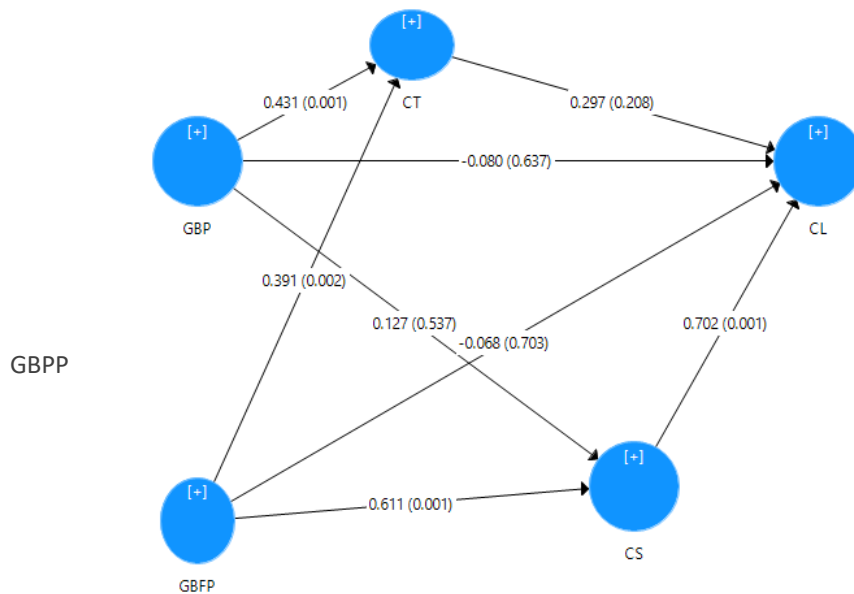
To analyze the reliability of all constructs, Cronbach Alpha (CB Alpha) and Composite Reliability (CR) are measured as shown in Table 6. Cronbach Alpha of all the constructs is greater than the threshold value which is 0.70 which shows the internal consistency. Composite Reliability is a more appropriate measure of internal consistency for Likert scales of 5 points as the results show the range of all constructs from 0.891 to 0.974 which is considered satisfactory (Hair et al.2016). For checking convergent validity, the Average Variance Extracted (AVE) should be greater than 0.50 and the results show that the value ranges between 0.510 and 0.881. The item's loadings range from 0.527 to 0.957 and two items from Green Banking Financing Projects GBFP6 and GBFP 7 are deleted which have very low loadings and are insignificant.

As stated by Hair et al. (2016) R-square should be greater than 0.25 and all the results of constructs are greater than the threshold value which means the relationship is strong as shown in Table 6.

**Table 2:** *Results of Reflective measurement model*

Construct Name	Coding	Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R-square
Customer Loyalty	CL1	0.932	0.963	0.969	0.797	0.758
	CL2	0.881				
	CL3	0.772				
	CL4	0.920				
	CL5	0.944				
	CL6	0.842				
	CL7	0.957				
	CL8	0.879				
Customer Satisfaction	CS1	0.920	0.966	0.974	0.881	0.517
	CS2	0.935				
	CS3	0.960				
	CS4	0.922				
	CS5	0.956				
Customer Trust	CT1	0.896	0.956	0.963	0.790	0.615
	CT2	0.869				
	CT3	0.909				
	CT4	0.888				
	CT5	0.872				
	CT6	0.918				
	CT7	0.869				
Green Banking Financial Projects	GBFP1	0.693	0.876	0.904	0.612	
	GBFP2	0.858				

	GBFP3	0.796			
	GBFP4	0.770			
	GBFP5	0.841			
	GBFP8	0.723			
Green Banking Practices and Products	GBPP1	0.527	0.860	0.891	0.510
	GBPP2	0.660			
	GBPP3	0.719			
	GBPP4	0.700			
	GBPP5	0.798			
	GBPP6	0.632			
	GBPP7	0.809			
	GBPP8	0.816			



**Figure 2 Path model and coefficient**

The result shows that GBPP and CT relationship is significant because the p-value is less than 0.05. Similarly, GBFP and CT are significant because the p-value is lower than the threshold value which is 0.05 credited by (A. Fisher 1890-1962). The GBPP and CS relationship is insignificant because the value exceeds the threshold value. But GBFP and CS relationship is significant. The

relationship of customer loyalty with customer satisfaction is significant but with customer trust it's insignificant.

**Table 3** *Parameter Estimation*

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
CS -> CL	0.702	0.670	0.218	3.223	0.001
CT -> CL	0.297	0.317	0.235	1.261	0.208
GBFP -> CL	-0.068	-0.037	0.179	0.382	0.703
GBFP -> CS	0.611	0.607	0.183	3.340	0.001
GBFP -> CT	0.391	0.413	0.127	3.080	0.002
GBPP -> CL	-0.080	-0.096	0.170	0.472	0.637
GBPP -> CS	0.127	0.160	0.205	0.618	0.537
GBPP -> CT	0.431	0.425	0.133	3.229	0.001

I tested the four mediation hypotheses H1, H2, H3, and H4. Table 8 summarizes the all-important outcomes of mediation analysis. H1 is supported as mediation was significant for the relationship of green banking practices and products on customer loyalty through customer trust. As stated by Hair et.al (2017) a VAF of 80% and above is a full mediator indication, VAF between 20% and 80% shows partial mediation, and a VAF lower than 20 shows no mediation. So in H1 VAF is 61.5% which means partial mediation. H2 is supported as mediation was significant for the relationship of green banking financing projects on customer loyalty through customer trust. So the results show that the VAF value is 63% which shows partial mediation. Third hypothesis H3 shows VAF value is 52.7% which means partial mediation. Fourth hypothesis H4 shows full mediation as VAF is 86.2% and green banking financing projects' effect on customer loyalty through customer satisfaction is significant.

**Table 4**  
*Summary of Mediation Analysis*

Hypothesis	Path	Path Coefficient	Indirect Effect	Total Effect	VAF	Mediation	t-values	P values	Decision
H1	GBPP -> CT	0.431	0.128	0.208	0.615	Partial	3.229	0.001	Supported
	CT -> CL	0.297					1.261	0.208	
H2	GBFP -> CT	0.391	0.116	0.184	0.630	Partial	3.080	0.002	Supported

	CT -> CL	0.297					1.261	0.208	
H3	GBPP -> CS	0.127	0.089	0.169	0.527	Partial	0.618	0.537	Supported
	CS -> CL	0.702					3.223	0.001	
H4	GBFP -> CS	0.611	0.428	0.496	0.862	Full	3.340	0.001	Supported
	CS -> CL	0.702					3.223	0.001	

## DISCUSSION

As with the advancement environmental risk and climate change occurs speedily and Pakistan lies among the top 10<sup>th</sup> countries mostly affected by climate change so the bank step forward to contribute to sustainability as they financing in the hazardous sectors so in other countries like Bangladesh, china etc. they are moving towards green banking approach and now in Pakistan State Bank of Pakistan issue some guidelines and raise awareness on green banking so in this study we analyze how customers or stakeholders of the bank accept this approach as many scholars and researchers show interest in green banking but in Pakistan there are very few studies on customer point of view so this study analyze the customer perspective about green banking so as the findings shows that all the hypothesis are accepted as first hypothesis in which green banking practices and product effect customer loyalty mediated by customer trust is supported which customer trust mediates the relationship between GBPP and GBFP same as second hypothesis which also show that customer trust mediates green banking financing project and customer loyalty.

The reason behind this is that if a customer is confident that their investment is in safe hand and has aware that it is used for some beneficial purpose like environmental upgrading so they trust banks as now people are aware of the environmental problem they want to contribute to updating the lifestyle to bring a positive change in the environment so banks gain there trust by providing these green banking practices and products that are harmless to the environment so customers loyalty also increases as customer trust and customer loyalty did not have a significant relationship but customer trust increase the positive relationship between customer loyalty and green banking practices and product and green financing projects. This study result contradicts Ibe-enwo, G., Igbudu, N., Garanti, Z., & Popoola, T. (2019) study in which green banking practices' relation with customer loyalty mediated by customer trust is insignificant and the hypothesis was rejected. In the third hypothesis, green banking practices and products and customer loyalty are mediated by customer satisfaction as the customers are satisfied with every service or product they tend to be loyal so customer satisfaction has a significant relationship with customer loyalty same. This result also contradicts Solekah, (2019) study which shows that customer satisfaction is not a mediating variable between customer loyalty and green banking practices and products but in this study customer satisfaction is found as a mediator. The reason is that the higher the customer satisfaction with a product greater the loyalty as customer satisfaction is the antecedent of customer loyalty so green banking practices and products fulfill customer requirements so satisfaction increases. In the case of the fourth hypothesis, green banking financing projects' effect on customer loyalty is mediated by customer satisfaction. This shows that customers are satisfied with the projects

offered by green banks and fulfill the needs and requirements of the customers and that realize them to repurchase and customer loyalty increases.

This study analyzes green banking viewed as green and marketing perspective analyzing customer's point of view evaluating banks' green initiative move and customer's perspectives which are missing in other studies that talk about green banking performance or green banking adoption. This new perspective makes this study significant from previous studies as very limited studies were conducted on the green banking marketing perspective. Secondly, this study examined that mediating effect of customer trust and customer satisfaction on customer loyalty and green banking practices and products, and green banking projects so this is important as very few studies were conducted on customers' green loyalty towards the bank.

## CONCLUSION

Recently due to increases in climate change and environmental problems that the world is facing especially the developing countries like Pakistan so the green banking approach is introduced as banks are the key players in the economy and provide funding to other different sectors to run their operations and most of the sectors are producing non-environmental friendly products they have a very harmful impact on the environment and nature so the banks take initiatives to contribute their services in beneficent of nature by analyzing the effect of these activities in our environment so as the bank investor or buyer both are the customers so it's necessary to understand their point of view are they satisfy that banks who are the financial intermediary in any country by sourcing funds take the responsibility of environmental benefit how they see the whole scenario so this study analyzes the impact green banking practices and products and green financing projects on customer loyalty mediated by customer trust and customer satisfaction. The quantitative research method is used by developing hypotheses and testing using smart pls. The 4 hypotheses were developed in this study and all hypotheses were accepted.

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