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# Green Banking Activities and Corporate Reputation of Banks: A Moderating Role of Bank Environmental Performance

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#### Abstract

The banking sector plays a pivotal role in promoting a sustainable environment in the country. This study aims to gain a deeper understanding of the role of green banking activities in shaping the corporate reputation of banks, with a focus on the moderating effect of the bank's environmental performance. The purposive sampling technique was used to collect the data, and structural equation modeling by the PLS-SEM approach was adopted to analyze the relationships of study variables, where data was collected using the survey method. A significant and influential impact of the green banking activities was found in shaping the corporate reputation of banks. Results also reveal that the environmental performance of banks plays a moderating role in the relationship between green banking activities and with corporate reputation of banks. The findings of the study provide implications for policymakers, regulators, and society. This research study contributes to the literature on green banking by exploring the factors that impact the corporation of banks.

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**Keywords:** Green banking activities, sustainable financing, corporate reputation, environmental performance.

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### INTRODUCTION

The banking sector is a vital component of the economy all around the globe, which plays a significant role in promoting sustainable development. The financial services industry is reshaping as a result of financial, economic, and environmental shifts and banking operations are completely adopting ethical ideas and principles (lbe-enwo et al., 2019). This sector promotes the implementation of eco-friendly practices, reduces exposure to climate-related risks, and aids in recovery by channeling resources toward climate-sensitive areas (Kim and Park, 2020). Now banks are promoting corporate social responsibility (CSR) initiatives because sustainability is now synonymous with environmental and green banking (Gazi et al., 2024). In order to create green and sustainable environment, banks are investing in green strategies all around the globe. Green banking operations are causing reduced carbon footprints which is equally beneficial for banks, businesses and for economy (Bihari and Pandey, 2015). To align with the United Nations Sustainable Development Goals (SDGs), banks need to expand their role beyond traditional functions and evolve into more strategic, environmentally responsible institutions (Carè, 2018). Global environment is becoming polluted day by day because of increasing population, using of fossil fuels, carbon emissions, and hectic economic operations (Wang and Zhang, 2021). The banking sector has witnessed a sharp increase in sustainable banking practices, where green financing and investment activities are given priority, as a result of the concerning environmental conditions. Banks are implementing an inclusive strategy to support a clean and sustainable environment owing to the growing environmental concerns. The banking sector has become the primary force behind sustainable economic growth, with two fold goals of saving money and preserving the environment. (Zhang et al., 2022). Green banks are active players of green drives all around the globe which are responsible for maintaining and promoting environment, thus proving their existence as an integral part of the sustainability initiatives. By promoting investments in eco-friendly goods and services, green banking helps to protect the environment (Muchiri et al., 2025). The banking industry must incorporate environmentally sustainable practices into its operations. This can be achieved by adopting policies that encourage efficient resource utilization, minimize greenhouse gas emissions, and finance projects that contribute to long-term sustainability (Khairunnessa et al., 2021). Moreover, banks can provide credit to the sectors that support sustainability such as renewable energy, green agriculture, and environmental protection. Banks must aggressively support sustainable economic development in order to align with the targets of SDGs. Government, banking, and society must work in collaboration to create an environment that supports sustainable economic growth in Pakistan.

Although banking operations are not directly associated with the activities that deteriorate environment but the external impact of their activities on customers is significant. Banks are not classified among the major direct contributors to environmental pollution, their consumption of energy, water, and other natural resources is comparatively lower than that of highly resource-intensive sectors such as mining and manufacturing. (Chalise and Paudel, 2024). However, banks still have responsibilities with regard to the increasing degradation of the environment. This is because, by lending money to their customers, banks can promote activities that could negatively impact the environment (Khaer and Anwar, 2022a). As major participants in the financial system, banks should base their credit management on assisting companies that use green environmental management technologies and make green investments (Gunawan et al., 2022). The waves of rising temperatures, deteriorating air quality, and greenhouse gas emissions have laid the groundwork for cooperation in halting additional environmental damage. Thus, the foundation of green banking success is environmental consciousness, banks preparedness, and the regulatory structure that oversees banking activities (Julia and Kassim, 2021). In the current era of environmental consciousness, banking efforts directed toward reducing pollution are recognized as part of green banking initiatives. These practices are containing on the online banking, lending green credits, initiating credit card that are climate friendly, reducing dependency on carbon emitting equipment, and investing in the projects that are environment friendly instead of carbon emitters. Banks proactive approach in relation to environment is necessary while sanctioning credit and it will encourage industries to take sustainable initiatives (Uddin et al., 2021).

Green banking adoption practices are not merely a response to legal requirements or ethical commitments. It is now a strategic edge in relation to management of risk, reducing costs, and market competitiveness (Prabhu and Aithal, 2023). Banks that prefer sustainability commitments enjoy better corporate reputation because eecological concerns shape decision of consumer and investor (Alshebami, 2021). Corporate reputation is an intangible asset of significant value which is formed by the perceptions of company's stakeholders regarding integrity, reliability and responsibility (Aslam and Jawaid, 2023). For banking sector, a valuable corporate reputation carries loyalty, trust, and long lasting relations with cclients, investors, and the community at large (Bouteraa et al., 2020). Like many other developing countries, banking industry in Pakistan plays a crucial role i financial stability and development. Pakistani banks in the traditional ways has been focusing on economic development, risk mmitigation, and market expansion (Sun et al., 2020). With the increasing education of environment related issues and the global concerns of sustainability,

there is a dire need of green banking practices which incorporates the recognition and need of integrating environmental concerns into banking practices (Ratnasari et al., 2021). In Pakistan, green banking practices covers a range of activities which include the aim of decreasing adverse environmental impact of banking practices and advancing green practices (Bukhari et al., 2022).

Investing in projects that are eco friendly, promoting green financial products, shifting bank operations towards energy efficient operations, and taking corporate social responsibility (CSR) initiatives include in the green banking practices regarding environmental sustainability. In addition, green practices of banks in Pakistan may positively influence corporate image of banks. Corporate reputation or Banks reputation is an intangible asset of significant value which is formed by the perceptions of Banks's stakeholders regarding integrity, reliability and responsibility (Rehman et al., 2021a). This positive reputation attract investment, increase loyalty od customers, build trust, and provide a competitive place. In contrast, ignoring environmental issues may cause bad reputation, customer loss, and enhanced regulatory conditions.

The association of green banking practices and corporate reputation is complex and multidimensional. The proactive role of banks is essential to upholding environmentally friendly considerations as a lending principle that would encourage industries to focus primarily on environmental management. In contrast, if bank remain fail to address environmental concerns, it will result in the loss of stakeholder confidence and reputational risks. For the reason, it is essential to understand that how how green banking practices influence corporate reputation in order to achieve and competitive edge and sustainable financial development (Bukhari et al., 2020).

Purpose of this research is to explore the various dynamics of banking activities and corporate reputation of banks in Pakistan. It examined the various green banking practices adopted by financial institutions and analyzed their impact on stakeholder perceptions and corporate reputation (Bukhari et al., 2020). The study will also investigate the challenges and opportunities associated with implementing green banking initiatives. By shedding light on these aspects, the paper seeks to provide valuable insights for banking professionals, policymakers, and researchers interested in the intersection of environmental sustainability and corporate reputation in the banking sector (Khaer and Anwar, 2022b). The study has the following specific objectives:

- To analyze whether Green banking activities impact the Corporate reputation of banks in Pakistan.
- To investigate whether environmental performance moderates the green banking activities with the corporate reputation of banks in Pakistan.
- Providing policy implications to support, promote, and strengthen the implementation of Green banking activities in the Banking sector of Pakistan. This research seeks to identify key factors that influence green banking practices adopted by Banks in Pakistan. On the basis of findings, policy recommendations are made to promote and integrate green banking practices in Pakistan.

# LITERATURE REVIEW

In the last few years, financial institutions have increasingly recognized the importance of aligning banking practices with environmental sustainability principles (Sajid et al., 2023). This growing awareness has given rise to the concept of green banking, through

which banking operations, services, and policies align with eco-friendly considerations. So, in this framework, green banking practices become enlarged, including sustainable finance, energy-efficient practices, eco-friendly banking products, and CSR activities that specifically address the environmental challenges (Hossain et al., 2020).

With the rapid economic and financial expansion, governments and organizations have contributed to deteriorating the environment and climate-related issues. In response, global institutions have emphasized promoting environmentally sustainable initiatives (Hasan et al., 2022). In this context, green banking has made sincere efforts to mitigate environmental risk and safeguard for present and future generations. In the same way, literature provides substantial evidence of a growing need for environmental sustainability, there is an increasing trend in green activities in the form of green finance and green banking (Rehman et al., 2021b). By reducing carbon footprints in operations and encouraging environmentally sustainable practices, greening banking positively contributes not only to banks but also to industry, economy, and overall society. Green banking facilitates transforming the traditional economy into low low-carbon and eco-friendly economy (Rahman et al., 2024). In this regard, green banking represents the ethical and administrative responsibility of financial institutions that lead to a minimum carbon footprint and climate-friendly activities (Hasan et al., 2022).

The concept of green banking is designed to promote environmental awareness and encourage eco-friendly behaviour among employees and customers, and while offers sustainable products and services (Park and Kim, 2020). It is a paradigm shift in banking sector to focus on the green aspects of financing, investment, and practices aligned with the United Nations Sustainable Development Goals (SDGs). There is a need to study and recognize the environmental risks that have irrecoverable harmful effects for all sectors, including banks. To address such challenges, the green banking system must follow the eco-friendly principles to achieve three kinds of benefits such as economic efficiency, reducing environmental impacts, and developing reputation of the banks (Kondyukova et al., 2018).

Prior studies indicate, green banking has evolved into a banking model that encourages collaboration among all stakeholders-including society, government, and the general public- for broader environmental and social benefits. Within this context, research on green banking within developing Asian economies becomes particularly essential, as it can guide future bank policymakers and environmental management. Furthermore, the environmental stance of the bank, together with eco-friendly products and services that provide well-being for employees, customers, and future generations. Nath et al. (2014) argue that banks lost their reputation when they neglected their responsibility to take green initiatives. The risk and cost of banks decreased when banks took an active participation in sustainable practices. In this perspective, this study also examines how the bank's reputation increased through adopting environmental sustainability in Pakistan. In this regard, previous studies also evidence, corporate social responsibility is an antecedent of corporate reputation (Khan et al., 2024). In the same vein, environmental responsibility also builds bank reputation (Blanco-Mazagatos et al., 2007). In the most recent study examining the positive effect of green banking practices, now customers emphasized more favour when the bank demonstrates responsibility and commitment toward environmental preservation. Present-day customers or investors evaluate not only financial security but also consider the extent to which their funds are utilized in protecting the environment and societal well-being (Nath et al., 2017). In the same vein study indicated green value has a positive impact on customer trust. Furthermore, when environmental challenges are considered in marketing strategies gives leverage toward customer loyalty (Ahuja, 2015). In addition, adopting a green approach in banking widely enhances the sustainability while strengthening the positive image of banks (Sharma and Choubey, 2022).

# **METHODOLOGY**

The process of selecting a particular group from which the researcher is willing to collect the data is called the target population (Hair et al., 2016). To generate data from the population of interest and the researcher now focuses more on recent trends and patterns (Fama, 1998). In the current study, the target population is the employees of the banking sector of Pakistan. This research study aims to examine the impact of green banking activities on the corporate reputation of banks in Pakistan. A structured questionnaire that was self-designed and included questions about variables was used to gather the data. Likert scale responses with five points were gathered. The researcher distributed 300 questionnaires to respondents and briefly explained to them the concept and the idea of the study. Only 250 questionnaires were received back; therefore, 83% was the response rate.

For the sample selection researcher used the purposive sampling technique in which the respondents were selected who served the basic purpose of the study and had sufficient information regarding the green investment. Thus, the purposive sampling technique enhanced the reliability and trustworthiness of the data; furthermore, the overall rigor of the research improved (Campbell et al., 2020). The researcher explained the questionnaire to the respondents comprehensively. The current study contained 28 questions regarding the information related to the construct of the study. It contained information related to the green banking activities, corporate reputation, and environmental performance. There are two sections of the questionnaire, one is relevant to the respondents' demographics, and the other section is composed of questions relevant to the construct variables. In demographic sections, gender, education, and age were included. In the next section, the questions regarding sustainable financing, green products and services, operational activities, corporate reputation, and environmental performance.

# **DATA ANALYSIS**

For the analysis of the hypothesized model researcher used PLS-SEM. All hypothesis and the measurement model were tested.

# **Demographics**

Demographic characteristics of the data play a significant role in understanding the in-depth mechanism of the hypothesized model. It is easy to interpret the results and justify the relationships. In the current study, among 213 respondents, 64.3% were male, while 35.7% were female. Regarding the class of respondents, 27.7% were executives and 72.3% were non-executives. 22.6% were of the age between 20 to 29 years of age, 35.25% were of the age between 30 to 39 years, 23.9% were of the age between 40 to 49 years and 18.3% were above 50 years.

#### Table 1.

Category Frequency percentage

The Asian Bulletin of Big Data Management			
Male	137	64.3%	
Female	76	35.7%	
Executives	59	27.7%	
Non-executives	154	72.3%	
20-29	48	22.6%	
30-39	75	35.2%	
40-49	51	23.9%	
Above 50	39	18.3%	
Masters	111	52.1%	
Bachelor's	102	47.9%	
	Male Female Executives Non-executives 20-29 30-39 40-49 Above 50 Masters	Male       137         Female       76         Executives       59         Non-executives       154         20-29       48         30-39       75         40-49       51         Above 50       39         Masters       111	

# Descriptive statistics and correlation

For any data to be satisfactory for advanced analysis, it is very important to understand the description of the included variables as well as the correlation among variables. All variables should be significantly related to each other for further analysis.

Table 2.

Correlations						а
	1	2	3	4	5	
SF	1					0.78
GPS	0.78**	1				0.81
OA	0.77**	0.70**	1			0.89
CR	0.60**	0.54**	0.55**	1		0.79
EP	0.16**	0.11**	0.14**	0.15*	1	0.86

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

The correlation table given above demonstrates the significant relationship between independent variables, i.e., sustainable financing, green products and services, operational activities, dependent variable corporate reputation. Similarly, moderating variable environmental performance also significantly correlated with the other construct variables. All variables have reliability greater than 0.70, therefore, data is reliable for analysis.

# **Factor Loadings**

To calculate the factor loadings, confirmatory factor analysis was conducted.

Table 3.

Measure	SF	GPS	OA	CR	EP	CR	AVE
Sustainable Financing							
SF1	.859					0.85	0.66
SF2	.794						
SF3	.784						
SF4	.751						
SF5	.875						
Green Products and Serv	rices						
GPS1		.731				0.89	0.62
GPS2		.841					
GPS3		.773					
GPS4		.810					
GPS5		.777					
Operational Activities							
OA1			.798			0.88	0.61
OA2			.756				

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

A Moderating Role of Bank Enviro	onmental Performance	Sabir,	, S, A, et al., (2025)
OA3	.754		
OA4	.782		
OA5	.810		
Corporate Reputation			
CR1	.788	0.90	0.65
CR2	.855		
CR3	.796		
CR4	.811		
CR5	.791		
CR6	.751		
CR7	.875		
Environmental Performance			
EP1	.768	0.89	0.62
EP2	.792		
EP3	.813		
EP4	.780		
EP5	.789		
EP3	.790 .		

From the above table, it is evident that all the factors have a loading greater than 0.70. Furthermore, the construct reliability is also greater than 0.70, and the values of AVE are greater than 0.50 (Fornell and Larcker, 1981). Thus, data is fit for advanced analysis.

# Discriminate validity and construct reliability

To test the discriminant validity of the data, values of squared correlations and the AVEs compared according to Fornell and Larcker (1981) criterion, the values of the AVE must be greater than the values of squared correlations below the diagonal.

Table 4.

Squared Correlations and AVE					
	1	2	3	4	5
SF	0.66				
GPS	0.60**	0.62			
OA	0.59**	0.49**	0.61		
CR	0.36**	0.29**	0.30**	0.65	
EP	0.02**	0.12**	0.02**	0.02*	0.62

Values of squared correlations among variables are less than the values of AVEs at the diagonal therefore, discriminant validity exists (Fornell and Larcker, 1981).

## Structure Model

For the testing of the hypothesized structure model was evaluated, the results are given below in the table.

The first hypothesis assumes the direct effect of sustainable financing on corporate reputation. The result supports the hypothesis that sustainable financing significantly affects corporate reputation with ( $\beta$ =0.52 at p=0.00). Green Products and Services significantly affect the corporate reputation with ( $\beta$ =0.13 at p=0.00).

Table 5.
Direct and Indirect relationships

Hypothesis	Relationships	Coefficient (β)	P values	t -Statistics
H1	SF> CR	0.52***	0.00	2.34
H2	GPS> CR	0.13***	0.00	7.65
H3	OA>CR	0.095**	0.02	7.66

<sup>\*\*\*</sup> significant at 1% while \*\* significant at 5%

Similarly, Operational Activities positively affect corporate reputation with ( $\beta$ =0.095 at p=0.05). This data supported the hypotheses 1,2, and 3.

# **Moderation Analysis**

For the test of moderation, the researcher used the process macros of Preacher and Hayes. The results are shown below.

Table 6.

Hypothesis	Relationships	Coefficient (β)	P values	t -Statistics
H1	SF*EP> CR	0.22***	0.00	4.87
H2	GPS*EP> CR	0.43***	0.00	2.89
H3	OA*EP>CR	0.223**	0.01	8.84

From the Table above, it is evident that environmental performance positively and significantly moderates the effect of sustainable finance on corporate reputation.

# DISCUSSIONS

Based on the relevant literature analysis, this study develops a novel method for testing a comprehensive model. Through the perspective of resource-based views theory, the study examines the relationship between green banking activities and green corporate reputation, with the moderating effect of environmental performance. The results demonstrated that sustainable finance, green products and services, and green operational activities significantly and positively impacted the corporate reputation of banks. The banks' daily operations-related practices, like using fewer paper documents, processing digital files efficiently, emphasizing ATMs, LED lighting, and speedy transfers, among other things, are effectively increasing the banks' Go Green imperatives. Overall, this improves the banks' reputation. This study found that a bank's daily operations have a big influence on its reputation. Aslam and Jawaid (2023) outlined how the green operations of banks contribute to their overall success and improve their reputation.

The use of e-statements, the intranet, online approval, and online meetings determine green banking operations. Bank costs and other resources will be reduced by these online initiatives (Zhang et al., 2022) as well as recapitulate the green initiatives on the part of banks. The results of the moderating analysis demonstrated that banks' environmental performance positively moderates the relationship between green banking practices and their corporate reputation. The present study investigated whether environmental performance enhances the connection between green banking initiatives and bank reputation. As found by Gazi et al. (2024) This study also shows that environmental awareness encourages green banking practices and improves banks' reputations; green choice and sustainable business relationships have a positive moderating effect. Similarly, Khan et al. (2024) described that environmental performance has a significant moderating impact on green activities.

# IMPLICATIONS OF THE STUDY

Based on the relevant literature analysis, this study develops a novel method for testing a comprehensive model. This research focusses on the green banking practices of banks operating in Pakistan in order to explore the environmentally friendly practices of banks and the resulting reputation of their banks. Similar to the other developing economies, there is a scarcity of research studies in Pakistan on the topic of green banking (Rehman et al., 2021). This study provides theoretical insights to the researchers and scholars in the field of banking and finance for identifying green

banking practices. Such theoretical foundations can be translated into practical strategies and policies, bridging the gap between academia and industry.

A key finding of the research is the significance of the environmental performance of banks, as it marks the first step toward understanding and implementing eco-friendly initiatives. Aligning with the United Nations' 2030 Agenda for Sustainable Development, the green orientation of these banks is essential for ensuring both social acceptance and environmental responsibility. The findings of recent research indicated that green banking activities should be adopted in the banking sector to promote eco-friendly practices, such as reducing carbon emissions, shifting to paperless operations, and enhancing digital banking services. The results verified that environmental performance had a favorable and significant impact on corporate reputation. Banks in Pakistan need to integrate green activities into their infrastructure, investment decisions, and financing approaches, while adhering to environmental and social standards set by the State Bank of Pakistan and the World Bank. This includes publicizing green performance ratings and learning from initiatives already implemented in the public and private sectors.

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Consent to Participate: Yes

**Consent for publication and Ethical approval:** Because this study does not include human or animal data, ethical approval is not required for publication. All authors have given their consent.

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