

Factors Influencing Green Banking Practices in Nepalese Commercial Banks

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Abstract

Purpose: Grounded on the Theory of Planned Behavior, this study assesses green banking practices in Nepalese commercial banks and examines the influence of financial benefits, regulatory policies, brand image, stakeholders' demands, and environmental interest, identifying the most influential factors.

Design/methodology/Approach: The study adopts a positivist philosophy with an explanatory design, surveying a sample of 228 respondents, including top, middle, and operational-level employees involved in decision-making or implementation of banking practices in 20 Nepalese commercial banks. Convenience sampling was employed to select respondents, and data were analyzed using SPSS 23.

Findings: The findings indicated that environmental interest and financial benefits are the strongest predictors of green banking practices, followed by stakeholder demands. In contrast, regulatory policies and brand image were found to be insignificant, highlighting the dominant role of intrinsic motivation and economic incentives in driving sustainable banking practices.

Implications: The study suggests that banks can accelerate green banking practices by prioritizing internal environmental values and aligning financial benefits with stakeholder expectations, highlighting a shift from compliance-driven to motivation-driven sustainability strategies.

Originality/value: This study provides novel insights by integrating financial, environmental, and stakeholder perspectives within the TPB framework and shifting the focus from regulatory compliance to intrinsic motivation and strategic incentives for sustainable banking adoption.

Keywords: Banking sector, environmental concern, green banking practices, sustainability

JEL Classification: G21, Q56, M14

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Introduction

The banking sector plays a pivotal role in fostering economic development, ensuring financial stability, and mobilizing resources for investment and growth. In recent years, global banking has shifted towards sustainability, driven by environmental concerns, regulatory pressures, stakeholder expectations, and evolving consumer preferences (Rehman et al., 2023). Green banking, defined as the adoption of environmentally sustainable practices in banking operations and services, has emerged as a strategic approach for balancing profitability with social and environmental responsibility (Sahu & Mishra, 2021). While developed countries have increasingly institutionalized green banking frameworks, Nepal's banking sector remains in the nascent stage of adoption, despite notable progress in technological integration and financial inclusion (Gurung & Shrestha, 2020; Dhakal & Rai, 2023).

In Nepal, commercial banks are gradually recognizing the environmental impact of traditional banking operations, including paper-intensive processes and energy consumption linked to IT infrastructure. Technological innovations such as mobile banking, internet banking, ATMs, and electronic fund transfers have facilitated paperless operations, reduced environmental footprints, and enhanced operational efficiency (Sharma & Khanal, 2020; Acharya & Bhattarai, 2022). However, these digital transitions paradoxically increase reliance on energy-intensive information systems, highlighting the need for sustainable operational frameworks. Integrating green banking in Nepal is thus not only an environmental imperative but also a strategic tool for enhancing brand image, attracting eco-conscious clients, and meeting emerging regulatory requirements.

The adoption of green banking can be explained through the Theory of Planned Behavior (TPB) and Stakeholder Theory. According to TPB, behavioral intentions are influenced by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). In the context of green banking, employees' attitudes toward environmental responsibility, perceived benefits, regulatory support, and stakeholder pressures collectively shape adoption behavior. Stakeholder theory emphasizes that organizations must meet the expectations of diverse actors, including customers, investors, regulators, and society, to maintain legitimacy and ensure sustainable growth (Freeman, 1984). By combining these perspectives, the study examines how financial benefits, regulatory policies, brand image, stakeholder demands, and environmental interest drive green banking practices in Nepalese commercial banks.

Global research highlights financial benefits and regulatory frameworks as key motivators for green banking adoption. Rehman et al. (2023) indicate that banks perceiving financial incentives are more likely to implement environmentally sustainable practices. Similarly, brand image and stakeholder demand serve as significant drivers, as green initiatives enhance corporate reputation, trust, and investor confidence (Buteau et al., 2021). Environmental interest, reflecting organizational commitment to sustainability, further reinforces green banking adoption. Despite these insights, research on the Nepalese banking sector is limited, and prior studies often analyze individual factors in isolation, neglecting the combined influence of financial, regulatory, environmental, and stakeholder dimensions (Dhungana & Ojha, 2018).

Despite emerging green banking initiatives, Nepalese commercial banks face distinct challenges in adoption. Infrastructural constraints, employee resistance, limited awareness, and partial regulatory enforcement hinder comprehensive implementation (Sharma & Khanal, 2020). Moreover, the shift to digital banking, while reducing paper usage, increases electricity consumption and carbon emissions, posing environmental paradoxes (Rehman et al., 2023). Addressing these challenges requires understanding the determinants of green banking adoption to guide effective strategies and policies that balance financial performance with environmental and social objectives.

Existing literature on green banking largely focuses on developed countries, leaving limited empirical evidence on developing economies like Nepal. Studies have yet to examine the combined effects of financial benefits, regulatory policies, brand image, stakeholder demands, and environmental interest on green banking adoption. This study fills the gap by integrating behavioral and organizational theories to investigate these factors in Nepalese commercial banks, providing insights into the determinants of sustainable banking practices in a developing country context.

The study aims to:

- Assess the current state of green banking practices in Nepalese commercial banks.
- Examine the impact of financial benefits, regulatory policies, brand image, stakeholders' demands, and environmental interests on the green banking practices.

Theoretically, this study contributes to the literature on sustainable banking by contextualizing green banking in Nepal and linking it to TPB and stakeholder theory. For policymakers, it provides actionable insights for developing regulatory frameworks and incentives to promote environmentally sustainable banking. Practically, the findings inform bank managers and stakeholders on strategies to enhance green banking adoption, improve brand reputation, and meet stakeholder expectations. Overall, the research bridges the gap between theory and practice, supporting environmentally responsible banking and contributing to sustainable economic growth in Nepal.

Literature Review

Review of Green Banking Practices

Green banking practices have emerged as a strategic response by financial institutions to environmental concerns, stakeholder expectations, and regulatory pressures. These practices involve integrating environmentally sustainable operations into banking services, such as green financing, eco-friendly investments, energy-efficient operations, and digital banking solutions (Scholtens, 2017; Tang, Luo, & Yu, 2016). The adoption of green banking is influenced by several independent variables, including environmental interest, competitor pressure, stakeholder pressure, regulatory policies, and perceived financial benefits (Dhakal & Koirala, 2018; de Guzman & Bhattacharya, 2020). Environmental interest, driven by global issues like climate change and resource depletion, encourages banks to invest in sustainable projects and reduce ecological impacts (Scholtens, 2017). Competitive pressures compel banks to innovate and

differentiate themselves through green initiatives to retain market share (Liu & An, 2019). Stakeholders, including regulators, investors, and customers, demand accountability for environmental performance, prompting the integration of green banking strategies (de Guzman & Bhattacharya, 2020). Regulatory policies and financial incentives further motivate banks to adopt sustainable practices by aligning environmental objectives with economic benefits (Tang et al., 2016).

Green Banking Practices in Nepal

In Nepal, green banking is an emerging concept with growing importance for sustainable development. Banks in Nepal have begun adopting environmentally conscious practices, such as paperless operations, energy-efficient offices, green financing for renewable energy projects, and participation in conservation initiatives (Dhakal & Koirala, 2018; NRB, 2020). The Nepal Rastra Bank (NRB) has introduced policies and incentives to encourage investment in sustainable projects (NRB, 2019). Despite these efforts, challenges remain, including limited awareness among banking professionals, inadequate technical expertise, and insufficient financial products tailored to sustainable businesses (Adhikari & Agrawal, 2020). Political instability, regulatory constraints, and economic uncertainties further hinder the widespread adoption of green banking. Nevertheless, there is increasing recognition of its benefits in promoting environmental sustainability, enhancing financial resilience, and strengthening banks' reputations, highlighting the need for awareness campaigns, capacity building, and policy support (Sahni & Dhamija, 2018).

Green banking initiatives in Nepalese commercial banks focus on: (i) paperless banking, through mobile and internet banking; (ii) energy consciousness, via energy audits and renewable energy adoption; (iii) green buildings with sustainable materials and water conservation; (iv) green lending, supporting solar energy, hydropower, and biogas projects; and (v) environmental conservation projects, including tree plantations and river cleaning initiatives (Mishra, 2023; NRB, 2020). These practices, while growing, require more systematic integration, comprehensive strategies, and collaboration with stakeholders to align with global standards (Dhakal & Koirala, 2018).

Empirical Insights on Green Banking Adoption

Global and regional studies provide insights into factors influencing the adoption of green banking. Iqbal et al. (2024) found that environmental concern, attitude, subjective norms, and perceived behavioral control significantly drive customers' intention to adopt green banking in Oman. Similarly, Upadhyaya et al. (2023) highlighted internal factors (cost reduction, convenience) and external factors (government initiatives, internet penetration) as crucial determinants of green banking adoption. In Nepal, Mishra and Aithal (2023) reported that stakeholder demand, environmental interest, and brand image significantly affect green banking practices, with brand image being the most influential factor. Mishra (2023) further confirmed that among five key factors (i.e., brand image, financial benefits, regulatory policies, environmental interest, and stakeholder demand), brand image and financial benefits most strongly influence adoption in Nepalese commercial banks.

Studies in other regions reinforce these findings. Khan et al. (2023) identified management commitment, competitive pressure, and customer pressure as drivers of

intentions to adopt green banking in Pakistan, while Shafique et al. (2020) found that perceived usefulness, ease of use, and regulatory compliance significantly influence bankers' behavioral intention. Research in Asian contexts (Liu et al., 2020; Tolliver et al., 2020) emphasizes the role of green financing and innovation in enhancing environmental performance and sustainable development. Furthermore, analyses in Bangladesh, Sri Lanka, and Oman highlight the importance of integrating green banking with corporate social responsibility, employee engagement, and stakeholder pressures to strengthen adoption and environmental impact (Khairunnessa et al., 2021; Shameem et al., 2021; Miah et al., 2021).

Green banking practices positively affect financial performance, environmental sustainability, and organizational reputation. Studies demonstrate that green banking can reduce operational costs, mitigate environmental risks, and enhance customer loyalty (Bose et al., 2018; Ibe-enwo et al., 2019). Conversely, challenges such as high implementation costs, limited technical expertise, and insufficient awareness can impede adoption, especially in emerging economies (Tu, 2017; Ahuja, 2015). Employee perspectives are critical, as management support strongly influences successful implementation, whereas external pressures from competitors and customers are less significant (Okyere-Kwakye & Md Nor, 2021).

The literature suggests that green banking adoption is shaped by a complex interplay of environmental, financial, regulatory, and stakeholder factors. In Nepal, brand image, financial benefits, and regulatory support are primary drivers, whereas global evidence emphasizes the additional roles of management commitment, customer awareness, and green financing. Despite regional variations, all studies converge on the idea that sustainable banking practices yield multifaceted benefits, including environmental protection, cost efficiency, reputational gains, and enhanced market competitiveness. However, gaps remain in understanding the mechanisms through which these variables interact, highlighting the need for integrated frameworks combining theoretical and empirical insights to guide future research and policy development (Shafique & Khan, 2020; Frimpong et al., 2022).

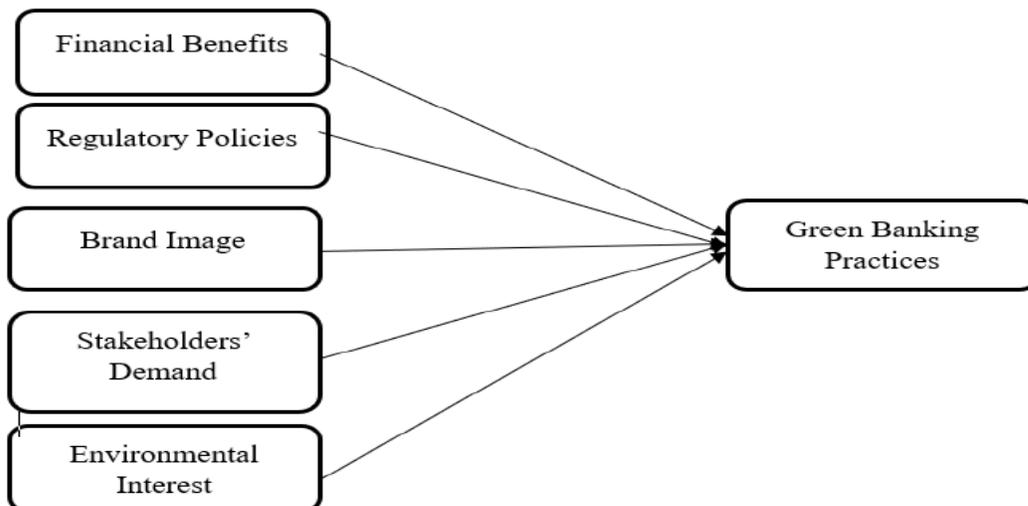
Research Model

The research model is grounded in the TPB, which posits that behavioral intentions are shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). In this study, financial benefits and brand image capture the attitudinal dimension, reflecting banks' perceived advantages of adopting green practices. Stakeholder demands represent the subjective norm, emphasizing social and regulatory pressures that influence managerial decisions. Regulatory policies and environmental interest reflect perceived behavioral control, highlighting the extent to which external guidelines and ecological awareness enable or constrain green banking adoption. TPB has been widely applied in sustainable banking, environmental management, and green consumer behavior research, demonstrating its robustness in explaining adoption intentions (Iqbal et al., 2024; Upadhyaya et al., 2023). This framework integrates financial, regulatory, social, and environmental perspectives into a unified model, providing a holistic approach to understanding green banking adoption in the Nepalese context. The novelty of this framework lies in its combined consideration of both internal (financial benefits, brand

image) and external (stakeholders, policies, environmental interest) drivers, offering insights for policy-makers and bank managers to enhance sustainable banking practices.

Figure 1

Research Model



Financial Benefits and Green Banking Practices: Financial benefits serve as a critical motivator for banks to adopt green banking practices, as they can reduce operational costs through energy efficiency, paperless operations, and resource optimization (Bose et al., 2018; Tu, 2017). Empirical studies indicate that financial incentives, such as reduced transaction costs and long-term profitability from sustainable investments, positively influence the adoption of environmentally friendly banking initiatives (Mishra, 2023; Upadhyaya et al., 2023). From a TPB perspective, financial benefits shape the attitudinal component, as banks' positive evaluation of economic gains strengthens their intention to implement green practices (Ajzen, 1991; Shafique et al., 2020). Moreover, evidence from Nepalese and regional contexts highlights that banks perceiving higher financial returns from green financing and eco-friendly operations are more likely to institutionalize sustainable practices (Dhakal & Koirala, 2018; Khan et al., 2023). Therefore, the alignment of economic incentives with environmental objectives establishes financial benefits as a significant driver of green banking adoption.

H1: Financial benefits have a significant effect on green banking practices.

Regulatory Policies and Green Banking Practices: Regulatory policies act as a crucial external driver for the adoption of green banking practices, as they provide guidelines, incentives, and compliance requirements that shape banks' operational decisions (Tang, Luo, & Yu, 2016; NRB, 2019). Empirical evidence indicates that banks are more likely to implement sustainable practices, such as green financing and eco-friendly operations, when regulatory frameworks mandate or encourage environmental responsibility (Shafique et al., 2020; Dhakal & Koirala, 2018). From the TPB perspective, regulations influence the subjective norm component, as adherence to policies and industry standards creates social and professional pressure to adopt green initiatives (Ajzen,

1991; Iqbal et al., 2024). Studies in Nepal and neighboring countries show that clear policy guidance, tax benefits, and compliance incentives significantly enhance banks' intentions and actual implementation of environmentally sustainable practices (Mishra, 2023; Khan et al., 2023). Therefore, regulatory policies not only direct operational behavior but also reinforce normative expectations, making them a significant determinant of green banking adoption.

H2: Regulatory policies have a significant effect on green banking practices.

Brand Image and Green Banking Practices: Brand image serves as a key factor for banks to adopt green banking practices, as institutions seek to enhance their reputation and demonstrate social and environmental responsibility (Mishra, 2023; Dhakal & Koirala, 2018). Empirical studies indicate that a strong brand image positively influences customer perception, loyalty, and competitive positioning, which in turn encourages banks to integrate sustainable practices such as green financing, eco-friendly operations, and digital initiatives (Bose et al., 2018; Ibe-enwo et al., 2019). From the TPB perspective, brand image shapes the subjective norm by creating social and market expectations that banks must meet to maintain legitimacy and public trust (Ajzen, 1991; Upadhyaya et al., 2023). Research in Nepal and South Asia confirms that banks with a focus on sustainability and CSR-linked branding are more proactive in implementing environmentally responsible policies and practices (Shameem et al., 2021; Mishra & Aithal, 2023). Thus, brand image not only strengthens organizational identity but also exerts normative pressure that significantly drives the adoption of green banking practices.

H3: Brand image has a significant effect on green banking practices.

Stakeholders' Demands and Green Banking Practices: Stakeholders' demands play a pivotal role in shaping green banking practices, as banks respond to expectations from customers, investors, regulators, and the wider community to demonstrate environmental accountability and social responsibility (de Guzman & Bhattacharya, 2020; Mishra, 2023). Empirical studies show that banks facing higher stakeholder pressure are more likely to implement eco-friendly operations, green lending, and sustainable investment practices to maintain legitimacy and competitive advantage (Khairunnessa et al., 2021; Upadhyaya et al., 2023). According to the TPB, stakeholder demands act as a component of the subjective norm, influencing organizational intentions and motivating banks to adopt behaviors that are socially and ethically expected (Ajzen, 1991; Shafique et al., 2020). Regional evidence from Nepal indicates that stakeholder expectations regarding CSR, environmental performance, and corporate governance significantly drive the adoption of green banking practices (Dhakal & Koirala, 2018; Mishra & Aithal, 2023). Furthermore, studies highlight that proactive engagement with stakeholders not only fulfills normative pressures but also enhances brand image, customer loyalty, and long-term financial sustainability (Bose et al., 2018; Ibe-enwo et al., 2019). Consequently, stakeholder demand functions as a critical external driver, reinforcing both ethical and strategic motivations for banks to implement green banking initiatives.

H4: Stakeholders' demand has a significant effect on green banking practices.

Environmental Interest and Green Banking Practices: Environmental interest significantly influences green banking practices, as banks increasingly recognize the importance of addressing climate change, resource depletion, and ecological sustainability in their operations (Scholtens, 2017; Tang, Luo, & Yu, 2016). Empirical studies indicate that institutions with a strong commitment to environmental stewardship are more likely to adopt paperless banking, green financing, energy-efficient technologies, and eco-friendly projects (Dhakal & Koirala, 2018; Mishra, 2023). Within the framework of the TPB, environmental interest shapes the attitude component, creating a positive perception of green banking as both ethically desirable and strategically beneficial (Ajzen, 1991; Shafique & Khan, 2020). Evidence from Nepalese commercial banks shows that environmentally conscious policies and initiatives not only reduce ecological impact but also enhance reputation, stakeholder trust, and long-term competitiveness (Sahni & Dhamija, 2018; Mishra & Aithal, 2023). Additionally, regional studies emphasize that managers' and employees' environmental awareness drives proactive adoption of sustainable practices, reflecting an alignment between personal and organizational values (Iqbal et al., 2024; Liu & An, 2019). Therefore, environmental interest acts as a key internal motivator, reinforcing both moral and practical incentives for implementing green banking practices in Nepal.

H5: Environmental interest has significant effects on green banking practices.

Research Methods

This study employs a positivist research philosophy, emphasizing objective measurement, hypothesis testing, and observable relationships among variables. An explanatory research design with a quantitative approach was adopted to test the hypothesized relationships among variables. The population for this study consists of employees from 20 commercial banks in Nepal, encompassing top, mid, and operational-level staff involved in decision-making or implementation of banking practices. Given the practical constraints of surveying the entire workforce, a sample of 228 employees was determined using Krejcie and Morgan's (1970) formula for sample size calculation, ensuring sufficient representation for statistical analysis and robust inference. Respondents were selected using a convenience sampling technique.

Primary data were collected using a structured questionnaire based on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree." The questionnaire captured perceptions and experiences regarding the independent variables and the adoption of green banking practices. This method ensured reliable, firsthand insights into organizational behaviors, employee attitudes, and institutional drivers of sustainability initiatives. The study measured all constructs using multi-item scales on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), with financial benefits (5 items), regulatory policies (5), brand image (4), stakeholder demands (4), environmental interest (5), and green banking practices (5), adapted from validated sources (Scholtens, 2017; Dhungana & Ojha, 2018; Fernando & Fernando, 2017; Mishra, 2023; Upadhyaya et al., 2023).

The structured questionnaire was divided into two parts: the first captured the socio-demographic profile of respondents, and the second focused on research variables. Data

was collected over two months (August–September 2025) using both printed questionnaires and online forms (Google Forms). Data analysis was conducted using SPSS version 23, employing both descriptive and inferential statistical techniques. Descriptive statistics, including socio-demographic, descriptive analysis, and normality test, provided an overview of the distribution of responses. Inferential statistics involved Pearson correlation analysis to examine bivariate relationships and multiple regression analysis to assess the combined influence of independent variables on green banking practices. The regression model is specified as follows:

The multiple regression equation is as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e_i \dots\dots\dots (1)$$

Whereas,

Y: represents green banking practices.

β_0 : is the constant term.

X1: denotes financial benefits (FB), with β_1 as its coefficient.

X2: represents regulatory policies (RP), with β_2 as its coefficient.

X3: stands for brand image (BI), with β_3 as its coefficient.

X4: indicates stakeholder's demand (SD), with β_4 as its coefficient.

X5: is environmental interest (EI), with β_5 as its coefficient.

Ei: is the error term.

Results

Socio-demographic Profile

The table presents the demographic profile of 228 respondents from various commercial banks. The majority of participants are male (58.8%), while 41.2% are female. Most respondents belong to the 20–30 years age group (36%), followed by the 30–40 years group (29.4%), whereas only 7% are below 20 years. Regarding marital status, 65.4% are married, with the remaining 34.6% unmarried. Mid-level employees constitute the majority (46.1%), with junior and senior levels representing 27.2% and 26.8%, respectively. Most respondents (47.4%) have 1–5 years of banking experience, followed by 26.3% with 5–10 years, and 16.2% with less than 1 year. Only 10.1% of respondents have more than 10 years of experience. Nabil Bank employs the largest number of respondents (9.6%), followed by NIC Asia Bank (8.3%) and Himalayan Bank (7%), while Machhapuchhre Bank has the fewest (1.8%). These demographic factors provide essential context for understanding respondent behavior across different banks, roles, and experience levels.

Table 1

Demographic Profile of the Respondents

Demographic Variable	Category	Frequency	Percent (%)
Gender	Male	134	58.8
	Female	94	41.2
Age (Years)	20-30	98	43
	30-40	67	29.4
	40-50	41	18
	Above 50	22	9.6
Marital Status	Married	149	65.4
	Unmarried	79	34.6
Level of Employment	Junior Level	62	27.2
	Mid-Level	105	46.1
	Senior Level	61	26.8
Work Experience (Years)	Less than 1	37	16.2
	1-5	108	47.4
	5-10	60	26.3
	More than 10	23	10.1
Bank	Nabil Bank	22	9.6
	NIC Asia Bank	19	8.3
	Himalayan Bank	16	7
	Laxmi Sunrise Bank	14	6.1
	Nepal Bank Limited	14	6.1
	Sanima Bank	15	6.6
	Kumari Bank	15	6.6
	Everest Bank	12	5.3
	Global IME Bank	12	5.3
	NIMB Bank	13	5.7
	Rastriya Banijya Bank	10	4.4
	Prime Bank	9	3.9
	Siddhartha Bank	9	3.9
	Nepal SBI Bank	8	3.5
	Prabhu Bank	8	3.5
	Citizens Bank	7	3.1
	Agriculture Development Bank	7	3.1
Standard Chartered Bank	5	2.2	
Machhapuchhre Bank	4	1.8	

Descriptive Statistics and Normality Test

The study collected data from 228 respondents from various Nepalese commercial banks using a structured questionnaire divided into socio-demographic profile and research variables. All research variables were measured using a five-point Likert scale.

Table 1 presents the descriptive and normality statistics for all study variables. The results indicate that all variables show moderate to high mean scores, reflecting respondents' general agreement with the importance and adoption of green banking practices in Nepalese commercial banks. Financial Benefits (FB) had the highest mean score of 4.12 (SD = 0.58), indicating that respondents strongly perceive financial incentives and cost savings as key motivators for adopting green banking practices. In contrast, Stakeholder Demands (SD) had the lowest mean of 3.88 (SD = 0.63), suggesting it is relatively less influential among the studied factors, though still positively rated. Standard deviations are relatively low (<0.65), suggesting that responses are closely clustered around the mean. The skewness and kurtosis values for all variables fall within the acceptable range of ± 2 , confirming that the data distribution is approximately normal (George & Mallery, 2010), which validates the suitability of parametric tests.

Table 2

Descriptive Statistics and Normality Test

Variables	No. of Items	Mean	Std. Deviation	Skewness	Kurtosis
Financial Benefits (FB)	5	4.12	0.58	-0.34	0.12
Regulatory Policies (RP)	5	3.95	0.61	-0.22	-0.15
Brand Image (BI)	4	4.05	0.63	-0.28	0.05
Stakeholder Demands (SD)	4	3.88	0.59	-0.31	0.08
Environmental Interest (EI)	5	4.1	0.55	-0.36	0.2
Green Banking Practices (GBP)	5	4.08	0.6	-0.25	0.1

Reliability Analysis

The reliability of the measurement instrument was assessed using Cronbach's alpha to ensure internal consistency of all constructs. As presented in Table 3, all variables exhibited acceptable reliability, with Cronbach's alpha values ranging from 0.77 to 0.83, exceeding the recommended threshold of 0.70 (Tavakol & Dennick, 2011). This confirms

that the items within each construct consistently measure the intended concept, making the data suitable for further statistical analyses such as correlation and regression.

Table 3

Reliability Analysis

Variables	Cronbach's Alpha	Remark
Financial Benefits (FB)	0.82	Reliable
Regulatory Policies (RP)	0.8	Reliable
Brand Image (BI)	0.78	Reliable
Stakeholder Demands (SD)	0.77	Reliable
Environmental Interest (EI)	0.81	Reliable
Green Banking Practices (GBP)	0.83	Reliable

Correlation Analysis

Pearson correlation analysis was conducted to examine the strength and direction of relationships between the independent variables and green banking practices. The results indicate that all independent variables are positively and significantly correlated with green banking practices at $p < 0.01$, confirming robust linear relationships. Among the predictors, financial benefits ($r = 0.829$) and environmental interest ($r = 0.863$) exhibit the strongest associations with green banking practices, while brand image ($r = 0.741$) shows the relatively lowest, yet still strong, correlation. These findings suggest that each independent variable plays a significant role in influencing the adoption of green banking practices.

Table 4

Correlation Analysis

Variables	FB	RP	BI	SD	EI	GBP
FB	1					
RP	0.856**	1				
BI	0.763**	0.767**	1			
SD	0.758**	0.785**	0.728**	1		
EI	0.813**	0.858**	0.755**	0.797**	1	
GBP	0.829**	0.827**	0.741**	0.781**	0.863**	1

Note. $p < 0.01$ (2-tailed)

Coefficient of Determination and ANOVA

The multiple regression model was used to examine the effect of financial benefits, regulatory policies, brand image, stakeholder demands, and environmental interest on green banking practices in Nepalese commercial banks. The model explains 80.4% of the variance in green banking practices ($R^2 = 0.804$; Adjusted $R^2 = 0.799$), indicating strong explanatory power. The overall model is statistically significant ($F = 181.794$, $p <$

0.001), confirming that the independent variables collectively have a significant effect on green banking practices.

Table 5

Coefficient of Determination and ANOVA

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	F	Sig.
1	0.896	0.804	0.799	0.502	181.794	0

Regression Analysis

Multiple regression analysis was conducted to examine the effect of financial benefits, regulatory policies, brand image, stakeholder demands, and environmental interest on green banking practices in Nepalese commercial banks. The results (see Table 6) indicate that environmental interest ($\beta = 0.428$, $p < 0.001$) and financial benefits ($\beta = 0.280$, $p < 0.001$) are the strongest predictors of green banking practices, followed by stakeholder demands ($\beta = 0.142$, $p = 0.015$). Regulatory policies ($\beta = 0.100$, $p = 0.181$) and brand image ($\beta = 0.057$, $p = 0.322$) were found to have an insignificant effect. Multicollinearity diagnostics show VIF values ranging from 1.231 to 2.378, indicating no multicollinearity issues among the predictors. These results confirm that the model is robust, and the independent variables collectively explain a substantial proportion of variance in green banking practices. The findings provide empirical support for the proposed hypotheses H1, H4, and H5, while H2 and H3 are not supported.

Table 6

Hypothesis Testing

Predictor	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.	VIF
Constant	-0.022	0.133	–	-0.164	0.87	–
Financial Benefits (FB)	0.28	0.066	0.267	4.241	0	1.879
Regulatory Policies (RP)	0.1	0.075	0.095	1.342	0.181	2.021
Brand Image (BI)	0.057	0.057	0.051	0.993	0.322	1.652
Stakeholder Demands (SD)	0.142	0.058	0.132	2.456	0.015	1.231
Environmental Interest (EI)	0.428	0.066	0.421	6.479	0	2.378

Similarly, the results also indicate that environmental interest ($\beta = 0.421$) is the most influential factor, followed by financial benefits ($\beta = 0.267$) and stakeholder demands ($\beta =$

0.132), while regulatory policies ($\beta = 0.095$) and brand image ($\beta = 0.051$) were not significant.

Discussion

This study examined the factors influencing green banking practices in Nepalese commercial banks, focusing on financial benefits, regulatory policies, brand image, stakeholders' demands, and environmental interest, grounded in the TPB.

Financial Benefits (H1) were found to have a significant positive effect on green banking practices, confirming that banks prioritize initiatives that offer tangible economic returns. This aligns with Mishra (2023) and Upadhyaya et al. (2023), who noted that cost reduction, operational efficiency, and new market opportunities are key motivators for sustainable banking practices. From the TPB perspective, financial benefits enhance the perceived behavioral control of banks, as institutions are more likely to engage in green practices when they anticipate manageable costs and potential gains, reinforcing the predictive validity of the theory.

Regulatory Policies (H2) did not have a significant effect, which contrasts with studies by Acharya and Bhattarai (2022) that highlighted government mandates as critical drivers. The non-significance may be explained by inconsistencies in policy enforcement and limited regulatory awareness among bank employees in Nepal. While TPB posits that normative pressures (analogous to regulatory expectations) influence behavioral intentions, our findings suggest that without strong internalization or enforcement, regulatory guidelines alone may not suffice to drive green banking adoption.

Brand Image (H3) was also nonsignificant, diverging from Shafique et al. (2020), who reported brand reputation as a significant motivator for green initiatives in Pakistan. The minimal influence observed here may stem from the relatively low market differentiation of Nepalese banks regarding environmental branding, indicating that customers and stakeholders may not perceive eco-friendly practices as a core element of the brand. TPB explains this through the lens of subjective norms, where social approval and perceived expectations shape intentions; in this context, weak societal emphasis on brand-driven sustainability diminishes its effect.

Stakeholders' Demands (H4) significantly influenced green banking practices, supporting Mishra (2023) and Dhakal and Rai (2023), who emphasized the role of investor, customer, and civil society expectations. Stakeholder pressure operates as both a normative and informational factor, signaling banks to adopt sustainable practices to maintain legitimacy and trust. The TPB framework validates this relationship, demonstrating that perceived expectations from critical referent groups can positively shape managerial intentions to implement green banking practices.

Environmental Interest (H5) emerged as the most influential factor, corroborating Mishra and Aithal (2022) and Iqbal et al. (2024), who reported environmental consciousness as a central driver of sustainable banking. This finding highlights that intrinsic motivation and institutional commitment to ecological sustainability strongly affect adoption, consistent with TPB's assertion that positive attitudes toward a behavior are primary predictors of behavioral intention. Banks with higher environmental interest are more proactive in

financing renewable energy, promoting paperless transactions, and integrating eco-friendly policies into operations.

The ranking of predictors based on beta values—environmental interest > financial benefits > stakeholders' demands > regulatory policies > brand image—demonstrates a combination of intrinsic and extrinsic motivators. Intrinsic attitudes (environmental interest) and perceived control (financial benefits) dominate over normative pressures (regulatory policies, brand image), emphasizing the relative importance of internalized commitment and tangible incentives in promoting green banking in Nepal.

Conclusion and Implications

This study examined the factors influencing green banking practices in Nepalese commercial banks, focusing on financial benefits, regulatory policies, brand image, stakeholders' demands, and environmental interest, grounded in the TPB. The findings indicate that environmental interest, financial benefits, and stakeholders' demand significantly drive green banking adoption, whereas regulatory policies and brand image have limited influence. Environmental interest emerged as the most influential factor, highlighting that intrinsic commitment to sustainability and positive attitudes are primary motivators for implementing eco-friendly banking practices. Financial benefits reinforce perceived behavioral control, demonstrating that banks are more likely to adopt green practices when economic incentives are clear, while stakeholder demands function as normative pressures shaping organizational intentions. These results collectively suggest that both intrinsic and extrinsic factors determine green banking behavior, validating the TPB framework in the context of Nepalese commercial banks.

The study achieves its objectives by assessing the current state of green banking practices and identifying the most significant drivers, providing actionable insights for practitioners. Theoretical implications include empirical support for TPB, emphasizing the dominance of attitudes (environmental interest) and perceived behavioral control (financial benefits) over normative pressures in shaping environmentally sustainable behavior in financial institutions. Practical implications suggest that bank managers should design programs that enhance environmental commitment, provide tangible economic incentives, and actively engage key stakeholders to strengthen adoption. Policy implications recommend that regulators focus not only on issuing guidelines but also on improving enforcement, awareness, and stakeholder education to enhance the effectiveness of green banking initiatives.

For future research, studies could investigate potential mediators and moderators, such as organizational culture, digital infrastructure, or leadership support, to further refine predictive models of green banking adoption. Comparative studies across regions or between emerging and developed economies could also provide deeper insights into context-specific drivers of sustainable banking practices. Thus, this study highlights that the adoption of green banking practices in Nepal is primarily driven by environmental interest, financial benefits, and stakeholder demands, offering a robust framework for scholars, practitioners, and policymakers to promote sustainable finance effectively.

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Conflict of Interest

The Authors declare that there is no conflict of interest.

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