



Sustainable Banking Practices and Financial Performance: A Conceptual and Analytical Study

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Abstract

The banking sector is changing rapidly as sustainability becomes an important part of how banks operate and make decisions. This study focuses on understanding why sustainability is becoming so important in the banking sector, especially through the use of Environmental, Social, and Governance (ESG) practices. The research is based on secondary data collected from research papers, bank reports, and studies related to green banking. By using content analysis, the study identifies major trends, key practices, and challenges in sustainable banking. The findings show that sustainability is no longer optional for banks but has become a necessity. It helps banks improve their financial performance, manage risks better, and build stronger relationships with customers and investors. Practices like green loans, renewable energy financing, digital banking, and sustainability reporting not only protect the environment but also support long-term growth. At the same time, banks face challenges such as lack of proper standards for measuring sustainability, high costs, low awareness among stakeholders, and differences in regulations across countries. The study concludes that sustainability is essential for the future success and stability of banks. To make sustainable banking more effective, there is a need for better rules, improved data systems, and cooperation between banks and regulators. Future research should focus on measuring the actual impact of sustainability practices in the banking sector.

Keywords: Sustainable Banking, ESG (Environmental, Social, and Governance), Green Finance, Financial Performance, Risk Management, Sustainability Reporting.



1. Introduction

In today's world, sustainability has become an important topic for businesses, governments, and society. Issues like climate change, environmental pollution, and social inequality are increasing, and every sector is expected to contribute to solving these problems. The banking sector is no exception. Earlier, banks mainly focused on earning profits and maintaining financial stability. But now, their role has expanded. They are expected to support sustainable development by considering environmental and social factors along with financial goals.

This shift has led to the concept of **sustainable banking**. Sustainable banking means that banks not only focus on profits but also take responsibility for the environment and society. Even though banks do not directly produce pollution, they influence many industries through their lending and investment decisions. For example, if banks finance eco-friendly projects like renewable energy, they support environmental protection. On the other hand, if they fund harmful industries, they indirectly contribute to environmental damage. Because of this, banks play a very important role in building a sustainable economy. Many researchers have studied how sustainability affects banks. Some studies show positive results. For example, Nizam et al. (2019) found that banks that follow social and environmental practices perform better financially. These banks manage their operations more efficiently, attract more investors, and grow their loan portfolios. Similarly, Bihari and Pandey (2015) explained that green banking practices like paperless transactions, online banking, and financing renewable energy projects not only help the environment but also improve bank performance.

However, the adoption of sustainable banking is not the same everywhere. In developing countries like India, it is still growing. Many banks have started taking small steps, such as reducing paper use or saving energy, but they have not fully adopted strong sustainability strategies. Choubey and Sharma (2022) found that most banks focus only on simple and cost-saving activities instead of large environmental projects. In the same way, Miah et al. (2021) observed that banks often adopt green practices mainly to reduce costs, not because of environmental responsibility. Saxena et al. (2021) also pointed out that banks in India give more importance to social activities like charity, while environmental issues receive less attention. Another important factor in sustainable banking is customer awareness. Even if banks introduce green services, their success depends on whether customers use them or not. Studies show that many customers are still not aware of green banking practices. Ellahi et al. (2021) found that a large number of people do not know about eco-friendly banking initiatives, even though they are willing to adopt them. Similarly, Naveenan et al. (2021) reported that customers like digital banking because it saves time and cost, but concerns about security and lack of technical knowledge still create barriers.

Technology is also playing a major role in making banking more sustainable. With the growth of digital banking, mobile apps, and fintech services, banks can reduce paper use and improve efficiency. Musyaffi et al. (2024) found that people are more likely to use green banking technologies when they trust them and find them useful. Serdarušić et al. (2024) also showed that digital awareness helps increase the use of fintech, which supports sustainable banking. In addition, new financial tools like Social Impact Bonds help banks invest in social projects and support sustainable development goals.

When it comes to financial performance, the results of different studies are mixed. Some researchers found that sustainability improves profitability. For example, Jain and Sharma (2023) showed that green banking practices increase both environmental performance and profits in Indian banks. Aslam and Jawaid (2022) also found that sustainability improves operational and financial performance. However, not all studies agree. Giannopoulos et al. (2024) found that higher ESG performance can reduce short-term profits. Similarly, Norocel and Vierescu (2024) explained that sustainability efforts may slow economic growth in the short run because they require high investment. These mixed results show that the relationship between sustainability and financial performance is complex. Sustainable banking also affects other areas like risk and stability. Salim et al. (2023) found that social responsibility improves bank stability, but environmental efforts may



sometimes create challenges. Cantero-Saiz et al. (2024) showed that banks with better ESG practices have fewer bad loans, which improves asset quality. This means sustainability is not only about profits but also about making banks stronger and more stable in the long run.

Governance and reporting are also important in sustainable banking. Banks need to clearly report their sustainability activities so that stakeholders can trust them. Rahayu et al. (2024) found that independent boards improve sustainability reporting, while Meutia et al. (2023) showed that strong audit committees increase transparency. However, reporting practices are still not consistent, especially in developing countries. Gaba and Sharma (2024) found that private banks perform better in sustainability reporting than public banks in India, which shows the need for better guidelines.

Another important aspect is green finance, which supports sustainable projects. Bansal et al. (2023) found that green financing strengthens the impact of green banking practices on environmental performance. At the same time, internal factors like employee motivation also matter. Chowdhury et al. (2025) showed that employees' behavior and awareness play a key role in improving sustainability outcomes. Even though many studies have been conducted, there are still some gaps. Most research focuses on only one or two aspects of sustainability, instead of combining environmental, social, and governance factors together. Also, the results about financial performance are not clear and differ from one study to another. In countries like India, there is still a lack of proper frameworks, awareness, and consistent reporting.

Therefore, this study aims to understand how sustainable banking practices affect the financial performance of banks, especially by considering ESG factors together. It will help in understanding whether sustainability really improves bank performance and how banks can balance profit with environmental and social responsibilities. The findings of this study will be useful for banks, policymakers, and researchers in promoting sustainable development in the banking sector.

2. Literature Review

Over the past few years, the idea of sustainable banking has become an important topic in academic research. Banks are no longer seen as institutions that only focus on profit; instead, they are expected to contribute to environmental protection and social development. Many researchers have tried to understand how sustainable practices influence banking performance, but their findings are not always the same. Some of the earlier studies clearly show that sustainability can improve financial performance. For example, Nizam et al. (2019) studied banks across different countries and found that those involved in social and environmental activities perform better financially. These banks are able to manage their operations more efficiently and attract more investment. Similarly, Bihari and Pandey (2015) explained that green banking practices such as online banking, paperless transactions, and financing renewable energy projects not only help the environment but also improve profitability. These studies support the idea that sustainability and financial performance can go hand in hand. However, when we look at developing countries, the situation appears different. Many banks have started adopting green practices, but most of these efforts are still at a basic level. Choubey and Sharma (2022) found that banks in India mainly focus on simple activities like reducing paper use and saving energy, rather than making major environmental investments. In the same way, Miah et al. (2021) observed that banks in Oman adopt green practices mainly to reduce costs, not because of a strong environmental commitment. Saxena et al. (2021) also pointed out that banks give more importance to social responsibility activities, such as community development, while environmental issues are often ignored. This shows that sustainable banking is still in a developing stage, especially in countries like India.

Another important area in the literature is customer awareness. Even if banks introduce green products and services, their success depends on whether customers are aware of them and willing to use them. Ellahi et al. (2021) found that a large number of customers are not aware of green banking practices, even though they are open to adopting them. Similarly, Naveenan et al. (2021) reported that customers prefer digital banking



services because they are convenient and cost-effective, but concerns about security and lack of technical knowledge limit their usage. These studies suggest that banks need to improve communication and awareness to increase the adoption of sustainable banking services. With the advancement of technology, digital banking and fintech have become important tools for promoting sustainability. Musyaffi et al. (2024) found that people are more likely to adopt green banking technology when they trust it and find it useful. Serdarusić et al. (2024) also showed that digital awareness plays a key role in increasing fintech adoption, which ultimately supports sustainable banking. In addition, Méndez-Suárez et al. (2020) introduced Social Impact Bonds as an innovative way for banks to invest in social projects while supporting sustainable development goals. These studies highlight that technology and financial innovation are becoming important drivers of sustainability in the banking sector.

When it comes to the impact of sustainability on financial performance, the results are mixed. Some studies show a positive relationship. For instance, Jain and Sharma (2023) found that green banking practices improve environmental performance, which further increases profitability. Similarly, Aslam and Jawaid (2022) reported that green banking has a positive impact on environmental, operational, and financial performance. On the other hand, some studies present opposite findings. Giannopoulos et al. (2024) found that higher ESG performance can reduce short-term financial returns. Likewise, Norocel and Vierescu (2024) explained that sustainability efforts may slow economic growth in the short run due to the high costs involved. These mixed findings suggest that the relationship between sustainability and financial performance is complex and may depend on different factors such as time period, country, and type of bank. Apart from profitability, researchers have also focused on bank stability and risk. Salim et al. (2023) found that social performance improves bank stability, but environmental performance may create challenges under certain conditions. Similarly, Cantero-Saiz et al. (2024) showed that ESG practices improve asset quality by reducing non-performing loans, although very high profitability may weaken this relationship. This means that sustainable practices not only affect profits but also influence the overall strength and stability of banks.

Governance and reporting have also been widely discussed in the literature. Rahayu et al. (2024) found that independent boards help improve sustainability disclosure, while Meutia et al. (2023) showed that strong audit committees increase transparency in sustainability reporting. However, reporting practices are still not consistent across banks. Gaba and Sharma (2024) observed that private banks in India perform better in sustainability reporting compared to public sector banks. This highlights the need for proper guidelines and standard frameworks for sustainability reporting.

Recent studies have also highlighted the importance of green finance and internal organizational factors. Bansal et al. (2023) found that green financing strengthens the relationship between green banking practices and environmental performance. Similarly, Gulzar et al. (2024) showed that green finance plays a mediating role in improving sustainability outcomes. At the same time, employee-related factors are also important. Chowdhury et al. (2025) found that employees' motivation and behavior significantly influence the success of green banking practices. These findings suggest that both financial and human factors are important for achieving sustainability. Corporate social responsibility (CSR) is another important area connected to sustainable banking. Siddique et al. (2022) explained that CSR acts as a pathway for achieving sustainability in the banking sector. Similarly, Sultan et al. (2024) found that the relationship between social performance and financial performance depends on the type of bank, with Islamic banks showing more positive results due to their ethical approach. This indicates that different banking models may respond differently to sustainability practices.

Finally, recent research has also considered the role of external factors such as regulations and global events. Farihah et al. (2024) found that regulatory frameworks played an important role in improving sustainable banking practices during the COVID-19 pandemic. On the other hand, Emmanuel et al. (2024) reported that while environmental disclosures have a positive impact on financial performance, the effect is not always strong. This suggests that the benefits of sustainability may take time to become visible.



Overall, the literature shows that sustainable banking is an important and growing area of research. Most studies agree that sustainability improves environmental and social outcomes, but its impact on financial performance is not always clear. Factors like customer awareness, technology, governance, and regulatory support play an important role in determining the success of sustainable banking practices. At the same time, there are still gaps in the research, especially in developing countries like India, where sustainability practices are still evolving and reporting standards are not consistent.

Sr. N.	Title	Authors	Objectives	Keywords	Methodology	Findings
1.	The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector	Nizam et al. (2019)	To examine the impact of access to finance and environmental financing on banks' financial performance globally	Sustainability Bank performance, ESG, Access to finance, Environmental financing Threshold	Cross-sectional and threshold regression analyses using a sample of 713 banks across 75 countries (2013–2015)	1. Environmental financing positively impacts Return on Equity (ROE). 2. Smaller banks (assets < USD 2 billion) benefit more from sustainability practices. 3. Loan growth and management quality help translate sustainability into better performance. 4. Sustainable practices enhance long-term competitiveness and profitability.
2.	Green banking: the case of the commercial banking sector in Delhi NCR	Choube & Sharma (2022)	To explore the current status, motivations, and strategies adopted by banks in Delhi NCR toward	Green banking, sustainability, Delhi NCR, CSR, environmental strategies, bank	Qualitative research; semi-structured interviews with 40 senior bankers from	1. Most banks focus on simple, cost-saving green practices



			environmental sustainability	motivations	10 leading Indian banks	(e.g., paperless processes, energy conservation); limited consideration of carbon footprint; lack of structured CSR sustainability policies; low employee awareness; proactive efforts driven by bank size, profitability, reputation, and age; need for stronger policies, clear guidelines, and better communication.
3.	Green banking: the case of commercial banking sector in Oman	(Miah et al., 2021)	To investigate green banking practices in Oman and identify drivers motivating banks to reduce environmental footprints	Green banking, Oman, environmental sustainability, cost-saving practices, policy guidelines, institutional capacity	Qualitative research; semi-structured interviews with 22 managers at different levels	1. Green practices are basic and mainly driven by cost savings, not environmental commitment. 2. Lack of clear policies and weak top-down implementation.



						ion. 3. Need for central bank guidelines and government support to promote genuine green banking.
4.	Sustainable Banking: Roadmap to Sustainable Development	(Saxena et al., 2021)	1) To explore various dimensions related to sustainable banking. 2) To identify the existing framework/model developed for the assessment of sustainable banking practices performance. 3) To identify various sustainable banking practices at a global level with a special focus on the Indian banking sector	Sustainable Banking, Sustainable Development, Sustainable Banking Practices, Environmental, Social and Governance (ESG)	Qualitative analysis of practices and regulatory suggestions	Banks focus more on social responsibility than environmental issues. Public sector banks should lead sustainability efforts. Need for India-specific guidelines and RBI's regulatory role emphasized.
5.	Customer awareness on Green banking practices	(Ellahi et al., 2021)	1. To find out that people in Pakistan are aware of Green Banking. 2. To find out that gender has an impact on green banking. 3. To validate the instruments used for measuring E-banking, Sustainable banking and Green Investment. 4. To find how much each construct explains the	Green Banking; Sustainable Banking; Green Investment; E Banking	Data collected from 400 respondents through an online survey and analyzed using Structural Equation Modeling (SEM). Convenience sampling was used.	1. 85% of customers were unaware of green banking practices. 2. Education significantly increased awareness. 3. Awareness was influenced by age, gender, and



			variation in the variables.			occupation. 4. 78% of customers preferred digital and paperless banking. 5. Banks need to improve communication about green initiatives.
6.	Green Banking in India	(Suresh & Pandey, 2015)	1. To study concept of 'Green Bank' 2. To identify the steps necessary to adopt green banking 3. To check the awareness of green banking among bankemployees, associates and general public.4. To create awareness about green banking among the general public and consumers and bank employee	Environmentalism, industries, green banking, banking sector, environmental friendly	Descriptive analysis	Green banking enhances financial performance and promotes environmental responsibility. Key initiatives include paperless banking, solar-powered ATMs, and renewable energy financing. Banks play a role in influencing industries to meet environmental standards.
7.	Sustainable Banking: New Forms of Investing under the Umbrella of the 2030 Agenda	Méndez -Suárez, Monfort , & Gallardo (2020)	This study aims to: (i) estimate the ROI of SIBs, (ii) define a financial formulation and a measurement system, and (iii) explain the relationship	<u>Corporate Social Responsibility (CSR); Sustainable Developments Goals; SDG; Social Impact Bonds; Valuation; Peterborough</u>	Valuation model using financial options theory	SIBs promote partnerships for social change and align with SDG 17. Despite potential



			between SIBs and SDGs.	<u>SIB</u>		negative returns, SIBs are ethical investments that enhance CSR. Need for further research on stakeholder perception and social welfare risks.
8.	The Impact of Sustainable Banking Practices on Bank Stability	Salim et al. (2023)	To analyze how corporate environmental and social performance (CEP and CSP) affects bank stability globally.	Bank stability, sustainability, CEP, CSP	Quantitative analysis of 473 banks in 74 countries (2007–2016); panel data analysis	CEP negatively impacts stability in mid-sized banks and high-performing environmental countries. CSP has no significant direct impact but financial product safety improves stability.
9.	Prioritizing the Attributes of Sustainable Banking Performance	Sharma & Kumar (2023)	To evaluate the responsiveness of the Indian banking sector toward sustainable performance. To prioritize sustainability dimensions and indicators for the banking industry. To benchmark the sustainable performance of banks.	Sustainability performance, TOPSIS, VIKOR	Quantitative analysis using TOPSIS and VIKOR; evaluation of 52 indicators	Environmental sustainability ranks highest, while financial sustainability is often overlooked. Standardizing indicators improves transparency and guides



						polycymaker s.
10.	Impact of green banking practices on sustainable environmental performance and profitability of private sector banks	Jain, P., & Sharma, B. K. (2023)	To examine the effect of green banking practices on environmental performance and profitability in Indian private banks	Green banking, environmental performance, profitability, private banks, India	Survey (380 managers); PLS-SEM analysis	<ul style="list-style-type: none"> - Green practices improve environmental performance and profitability. - Investments in green projects have stronger impact than routine operational changes. - Strong environmental performance boosts reputation and reduces risks.
11.	Corporate Social Responsibility as the Pathway to Sustainable Banking	(Siddique et al., 2023)	<ol style="list-style-type: none"> 1.To identify and analyze the theories applied in sustainable banking and CSR-related studies. 2.To explore and categorize the dimensions of CSR practices in the context of sustainable banking. 3.To review and summarize significant findings on sustainable banking across different countries and regions. 4. To compile and analyze CSR-related factors and 	<u>Sustainable banking, corporate social responsibility, sustainability, systematic approach</u>	Systematic review of 30 documents from Web of Science and Scopus databases	CSR dimensions aligned with SDGs drive sustainability. Post-2016 growth in studies linked to SDGs and Paris Agreement. Quantitative methods dominate the literature.



			variables (CSR dimensions) in sustainable banking using data from the Web of Science and Scopus databases..			
12.	Do Environmental, Social, and Governance Factors and Banking Activity Affect Economic Growth?	Norocel & Vierescu (2024)	To examine the relationship between ESG factors, banking activity, and economic growth in the EU.	ESG, economic growth, banking	Panel data regression analysis (2000–2021); data from World Bank, Eurostat, IMF, LSEG databases	High ESG scores and green loans slow short-term economic growth due to transition costs. Bank profitability positively impacts growth. Emphasizes careful implementation of ESG policies to balance sustainability and economic progress.
13.	Value creation of green banking technology sustainability: The role of initial trust	(Musyafi et al., 2024)	1.This study aims to identify the factors influencing GBT acceptance. 2.To explore the key factors influencing the adoption of Green Banking Technology (GBT) in Indonesia and its impact on greenhouse gas emissions and sustainable practices.	Technology Acceptance Model (TAM), trust	Quantitative analysis based on TAM framework.	Perceived usefulness (PU) is the most significant factor influencing GBT adoption. Trust and perceived value also play major roles. Transparency and building trust are crucial to encourage GBT adoption,



						which contributes to sustainable development.
14.	Prioritizing the attributes of sustainable banking performance	(Sharma & Kumar, 2023)	<ol style="list-style-type: none"> To assess the extent of responsiveness of the Indian banking sector towards sustainable performance. To identify and prioritize the sustainability dimensions and indicators relevant to the banking industry. To establish benchmarks for measuring and evaluating the sustainable performance of banks. To provide insights into sustainability disclosure practices within the Indian banking sector. 	Sustainable banking, MCDM, VIKOR, TOPSIS, content analysis	Content analysis using NVivo and hybrid MCDM approach integrating entropy, TOPSIS, and VIKOR.	Environmental sustainability ranked highest, while financial sustainability ranked lowest. Offers a multidimensional model and prioritization of sustainability indicators to benchmark Indian banks.
15.	Green banking practices, bank reputation, and environmental awareness	Khan et al. (2023)	To examine the role of green banking practices in shaping the reputation of Islamic banks in Pakistan & how employee environmental awareness moderates this relationship.	Green banking, Environmental awareness, Bank reputation, Islamic banks, Pakistan	Survey of 390 employees, structural equation modeling (SEM) using SmartPLS.	Green banking practices positively impact bank reputation, with employee environmental awareness amplifying this effect. Emphasizes embedding green initiatives and raising



						awareness for better environmental outcomes.
16.	Impact of corporate social performance on financial performance: Evidence from Islamic banks, conventional banks, and social banks.	(Sultan et al., 2024)	To assess the impact of banking models on the relationship between corporate social performance (CSP) and corporate financial performance (CFP) in determining a viable model for sustainable banking.	Conventional banking (CB), Corporate social performance (CSP), Corporate financial performance, Islamic banking (IB), Social banking (SB)	CSP Index development and System GMM statistical analysis for 117 banks across 36 countries (2013–2020).	Islamic banks showed a positive CSP-CFP relationship, conventional banks showed a negative one, and social banks showed mixed results. Highlights ethical banking's importance in financial outcomes.
17.	Green finance and Fintech adoption services among Croatian online users	Serdarušić, H., Pancić, M., & Zavišić, Ž. (2024)	1.To examine the influence of green finance on Fintech adoption, digital transformation, and digital awareness, in turn, on banking sustainability in the Croatian banking industry. 2.To examine the influence of digital transformation and digital awareness on Fintech adoption in the Croatian banking industry. 3.To explore the mediating role of digital transformation and awareness between green finance and Fintech adoption in the Croatian	<u>fintech adoption, green finance, digital awareness, digital transformation, Croatian banking industry</u>	Survey of 304 participants, analysis using SPSS and SmartPLS for SEM.	Green finance impacts Fintech adoption and digital awareness, which boosts sustainability. Emphasizes digital literacy and green principles integration for tech-driven sustainability.



			banking industry.			
18.	What Is the Relationship between Corporate Social Responsibility and Financial Performance in the UK Banking Sector?	(Giannopoulos et al., 2024)	The main objective of this study is to investigate the impact of CSR on FP in the UK banking sector.	<u>CSR, ESG, financial performance, UK listed banks</u>	Panel data regression models, control variables for bank size and leverage.	Found a negative correlation between ESG scores and ROA/ROE, challenging the belief that CSR always improves financial performance. Highlights trade-offs in ethical practices.
19.	Sustainable finance disclosure in ASEAN's banking industry	(Rahayu et al., 2024)	To assess how board independence and diversity influence sustainable finance disclosure (SFD) in ASEAN banks and the level of SFD in the region.	ASEAN Banks, Board diversity, Board independence, Sustainable finance disclosure	Panel data regression, analysis of 276 observations from 34 banks (2017–2019).	Independent board members positively impact SFD. Gender diversity has no significant effect, while nationality diversity negatively impacts SFD. Highlights the need for structured boards to enhance SFD in ASEAN banks.
20.	ESG and asset quality in the banking industry: The moderating role of financial performance	(Cantero-Saiz et al., 2024).	To investigate the relationship between ESG practices and bank asset quality, and assess how	ESG, Asset quality, Financial Performance, Sustainable Banking,	Quarterly data from 96 banks in 33 countries (2017-Q4 to 2022-Q3). - Data sources:	Positive relationship between ESG practices and asset



			financial performance moderates this relationship.	Sustainability	ESG scores (MSCI, Bloomberg), financial data (Bankfocus), macroeconomic variables (IMF). - Asset quality measured by NPL ratio and impaired loans. - Fixed-effects panel regression used to analyze the data.	quality (fewer bad loans, stronger financial position). - Exceptionally high profitability (measured by ROE) can reverse this relationship due to reduced focus on ESG practices. - Banks should stabilize profitability levels to sustain long-term benefits of ESG. - Insights for policymakers and managers emphasize the need for sustainable and responsible banking practices.
21.	Assessing Banks' Performance in Sustainability Practices and Programs During the COVID-19 Pandemic: The Case of Indonesian Banks	(Farihah et al., 2024)	To evaluate sustainable banking performance in the Indonesian banking sector during the COVID-19 pandemic (2020–2021).	Bank, Banking performance, Sustainability, COVID-19, Indonesia	Secondary data from sustainability and annual reports of banks listed on the Indonesia Stock Exchange (IDX).	Significant differences were found in sustainable banking performance between 2020 and 2021. The



					Content and statistical analysis were conducted based on the OJK Roadmap Phase II and GRI frameworks.	OJK Sustainable Finance Roadmap Phase II was key to improving performance, aligning sustainable finance principles with post-pandemic recovery.
22.	Sustainability Reporting and Audit Committee Attributes: Evidence from Banks in Indonesia	(Meutia et al., 2023)	1.To analyze the effects of audit committee attributes on sustainability reporting (SR) disclosure in commercial banks in Indonesia. 2. To examine the relationships between financial expertise, size, independence, and meeting frequency of audit committees and the quality of SR disclosure. 3. To test the impact of these attributes on the SR practices of Indonesian banks from 2015 to 2019.	sustainability reporting, audit committee, sustainable finance, legitimacy theory, stakeholders theory	Cross-sectional and time-series analysis of 74 commercial banks in Indonesia from 2015 to 2019 using data from annual and sustainability reports. Variables included audit committee attributes and control variables (bank size, age, audit quality).	1. Financial expertise had a negative relationship with SR disclosures. 2. Larger audit committees, more independent committees, and higher meeting frequency positively impacted SR disclosures. 3. Bank size, age, and audit quality also positively affected SR disclosures.
23.	Benchmarking the sustainable banking performance of Indian commercial banks	(Sharma & Gaba, 2022)	1. To suggest a GRI-G4 reporting-based multidimensional sustainability disclosure index for Indian Banks. 2 To determine the extent of reporting	green banking; sustainability reporting; social performance; environmental performance; governance.	Content analysis using Python Software on data from 28 banks (2018-2021). Mann-Whitney U test for	Private banks outperformed public banks in sustainability practices. Yes Bank was the top



			of Indian commercial banks on the suggested framework. 3 To prioritise the sustainability performance of the Indian commercial banks. 4 To ascertain the variation of sustainability disclosure practices of the commercial banks.		performance variations	performer. SBI and PNB were the only public banks following the GRI-G4 framework.
24.	Relationship of Environmental Disclosure of Renewable Energy, Carbon Emissions, Waste Management, Water Consumption, and Banks' Financial Performance	(Emmanuel et al., 2024)	1. Analyze the link between environmental disclosures and financial performance (ROA). 2. Assess the impact of leverage and firm size on ROA. 3. Explore the role of environmental sustainability in banking performance.	Carbon Emission Disclosure, Financial Performance, Sustainable Banking	Ex post facto research design using secondary data from annual reports of 14 Nigerian banks (2013–2021). Panel data analyzed with multiple regression	1. Environmental disclosures (renewable energy, carbon emissions, waste management, water consumption) positively but insignificantly impact financial performance (ROA). 2. Higher leverage negatively impacts ROA (statistically significant). 3. Firm size positively but insignificantly impacts ROA. 4. Environmental sustainability shows limited



						short-term financial benefits.
25.	Green Banking Practices in India – The Customer’s Perspective	(Naveen an, 2021)	1. Understand customer perceptions and satisfaction with green banking. 2. Identify usage patterns and barriers to adoption.	Green banking, Customer satisfaction, Digital banking, Sustainability	Descriptive research design; data collected from Indian bank customers using chi-square, ANOVA, Kruskal-Wallis tests, and cross-tabulation	1. 87.5% of customers frequently use green banking services. 2. Most users prefer private banks. 3. Convenience, time savings, and eco benefits are key drivers. 4. Barriers include security concerns and lack of technical expertise.
26.	The Effect of Green Banking and Financial Performance on Banking Profitability	Putri et al. (2022)	To examine effects of green banking and financial performance on ROA in state-owned Indonesian banks.	Green banking, Profitability, ROA, CSR, Financial management	Multiple regression using data from 4 state-owned banks (2010–2020); profitability measured using ROA.	1. CAR and CSR positively and significantly affect ROA. 2. NPL and LDR negatively affect ROA. 3. Number of ATMs (green banking proxy) has no significant impact due to high operational costs. 4. Emphasizes balance



						between sustainability and profitability.
27.	Green banking practices and environmental performance: Navigating sustainability in banks	Gulzar et al. (2024)	<ol style="list-style-type: none"> 1. Examine the impact of green banking practices on banks' environmental performance. 2. Analyze the mediating role of green finance in this relationship. 	Green banking · Green finance · Environmental sustainability · Climate change · Carbon emission	Survey of 500 employees from 4 Indian banks (SBI, PNB, HDFC, ICICI); PLS-SEM analysis using SmartPLS 4; reliability and validity tested through Cronbach's alpha, CR, AVE, Fornell-Larcker, and HTMT.	<ol style="list-style-type: none"> 1. Operational green practices significantly improve environmental performance. 2. Employee, customer, and policy factors do not significantly affect EP. 3. Green finance positively mediates the GB-EP relationship. 4. Policy implications for sustainability in Indian banks.
28.	Green banking adoption practices: Improving environmental, financial, and operational performance	Aslam and Jawaid (2022)	<ol style="list-style-type: none"> 1. Examine the impact of Green Banking Adoption Practices (GBAP) on environmental, operational, and financial performance of banks. 2. Validate the application of Resource-Based View (RBV) theory in the banking context. 	Green Banking Adoption, Sustainable Banking, Eco-Friendly practices, Firm Performance, Banking Performance	Quantitative study using a five-point Likert scale questionnaire. Data collected from 360 banking personnel in Pakistan using non-probability purposive sampling. Data analyzed using Partial Least Squares	<ol style="list-style-type: none"> 1. GBAP significantly and positively affect environmental, operational, and financial performance. 2. Environmental performance was most



					Structural Equation Modeling (PLS-SEM).	affected ($\beta = 0.615$), followed by operational ($\beta = 0.471$) and financial performance ($\beta = 0.407$). 3. The study supports the RBV theory in explaining how green practices enhance competitive advantage in banking.
29.	Green Financing as a Bridge Between Green Banking Strategies and Environmental Performance in Punjab, India":	Bansal et al., (2023)	1. To examine the relationship between green banking strategies and environmental performance in banks. 2. To investigate the mediating role of green financing in this relationship.	green banking, green banking strategies, environmental performance, green financing, banking sector, Punjab, India, Structural Equation Modelling (SEM), PLS-SEM and mediation analysis	Quantitative study using a structured questionnaire. Data collected from 290 bank employees (public and private sector) in Punjab, India, using convenience sampling. Data analyzed using Structural Equation Modeling (SEM) and Partial Least Squares SEM (PLS-SEM) for mediation analysis.	1. Green banking strategies significantly improve environmental performance in banks. 2. Green financing partially mediates the relationship between green banking strategies and environmental performance. 3. The study emphasizes the role of green financing in enhancing the impact



						of green banking on sustainability.
30.	Fostering Sustainable Environmental Performance Through Green Banking Practices: The Mediating Role of Employees' Green Motivation and Green Behavior	Chowdhury et al. (2025)	<p>1. To determine the relationship between green banking practices and banks' environmental performance.</p> <p>2. To investigate the mediating role of employees' green motivation in the green practices–performance relationship.</p> <p>3. To examine the mediating role of employees' green behavior in the same relationship.</p>	<u>green banking practices; bank's environmental performances; employee green motivation; employee green behavior</u>	Quantitative method using a structured questionnaire (5-point Likert scale); data from 376 employees of private banks in Bangladesh; PLS-SEM analysis	<p>1. Customer-related green practices significantly enhanced environmental performance.</p> <p>2. Employee green motivation and behavior mediated the relationship between green practices and environmental performance.</p> <p>3. The model demonstrated moderate predictive power and relevance.</p>

Overall, the literature shows that sustainable banking is an important and growing area of research. Most studies agree that sustainability improves environmental and social outcomes, but its impact on financial performance is not always clear. Factors like customer awareness, technology, governance, and regulatory support play an important role in determining the success of sustainable banking practices. At the same time, there are still gaps in the research, especially in developing countries like India, where sustainability practices are still evolving and reporting standards are not consistent.



3. Objectives of the Study

1. To examine the concept and importance of sustainability in banking
2. To evaluate sustainability practices and reporting in the banking sector
3. To identify challenges and future prospects of sustainable banking

4. Research Methodology

The present study adopts a **qualitative and conceptual research design** to examine the growing importance of sustainability in the banking sector. It is based entirely on **secondary data** collected from credible and authoritative sources, including peer-reviewed research journals indexed in databases such as Scopus and Web of Science, sustainability and annual reports of banks, and published articles related to Environmental, Social, and Governance (ESG) practices and green banking. Relevant literature was systematically selected based on its alignment with the research objectives and its contribution to understanding sustainable banking trends. The study employs **content analysis** as the primary analytical technique, which involves reviewing, categorizing, and synthesizing existing literature to identify key themes, patterns, and developments in the field. While this approach provides comprehensive theoretical insights, the study is limited by its reliance on secondary data and the absence of empirical validation.

In short, this study adopts a qualitative and conceptual research design based on secondary data. Data has been collected from:

- Research journals (Scopus, Web of Science)
- Sustainability reports of banks
- Published articles on ESG and green banking

The study uses **content analysis** to synthesize existing literature and identify key trends.

5. Growing Importance of Sustainability in the Banking Sector

5.1 Introduction to Sustainability in Banking

Sustainability has become a central theme in the transformation of the global banking sector. Traditionally focused on profitability and financial intermediation, banks are now increasingly integrating environmental and social considerations into their operations. This shift is driven by growing concerns over climate change, environmental degradation, and social inequality. Sustainability in banking refers to the incorporation of Environmental, Social, and Governance (ESG) factors into financial decision-making, ensuring long-term value creation and responsible banking practices (Karkowska, 2020).

5.2 Environmental and Economic Significance

Banks play a crucial role in addressing environmental challenges by directing financial resources toward sustainable activities. Green financing initiatives, such as renewable energy projects and green bonds, contribute to reducing carbon emissions and promoting environmental sustainability. Gutiérrez-López and Abad-González (2020) noted that sustainable banking supports the transition to a low-carbon economy while creating new growth opportunities for financial institutions.



Stage 1: Before
2000- Limited
Awareness

- Focus mainly on profit and financial activities
- No direct concern for environmental issues
- Basic Corporate Social Responsibility (CSR) activities

5.3 Sustainability and Financial Performance

The relationship between sustainability and financial performance has gained significant attention in recent literature. Studies indicate that banks adopting ESG practices tend to perform better financially. Buallay et al. (2021) found that sustainability reporting positively influences key financial indicators such as Return on Assets (ROA) and Return on Equity (ROE). Additionally, sustainability enhances a bank's reputation, attracts investors, and strengthens stakeholder trust, thereby providing a competitive advantage (Gutiérrez-López & Abad-González, 2020).

5.4 Role in Risk Management

Sustainability has become an essential component of risk management in banking. Environmental and social risks, including climate-related disruptions, pose significant challenges to financial stability. By integrating ESG factors into risk assessment frameworks, banks can better identify and mitigate potential risks. Scholtens and van't Klooster (2019) demonstrated that sustainable banking practices reduce risk exposure and enhance financial stability.

5.5 Sustainability Reporting and Transparency

Transparency is a key aspect of sustainable banking, achieved through sustainability reporting. Frameworks such as the Global Reporting Initiative (GRI) enable banks to disclose their environmental and social performance. Kumar and Prakash (2019) highlighted that such reporting enhances accountability and stakeholder confidence. In India, sustainability disclosures have improved significantly, reflecting a growing commitment to responsible banking (Rajawat & Mahajan, 2024).

5.6 Stakeholder and Regulatory Influence

The increasing expectations of stakeholders, including customers, investors, and regulators, have accelerated the adoption of sustainability in banking. Financial institutions are now expected to operate ethically and contribute to societal well-being. Moreover, regulatory frameworks mandating ESG disclosures and sustainable finance practices have made sustainability a necessity rather than a choice.

5.7 Challenges in Sustainable Banking

Despite its benefits, sustainable banking faces several challenges. The lack of standardized ESG metrics, high implementation costs, and data limitations hinder effective adoption. Additionally, regulatory inconsistencies across countries create barriers for global banks. Addressing these challenges requires coordinated efforts from policymakers and financial institutions (Rajawat & Mahajan, 2024).



6. Key Sustainable Banking Practices

- **Green Loans and Green Bonds**
 - Finance environmentally sustainable projects (renewable energy, green infrastructure)
 - Support low-carbon economy and climate goals
 - Create new investment opportunities for banks
- **Paperless and Digital Banking**
 - Use of online banking, mobile banking, e-statements
 - Reduces paper usage and operational costs
 - Improves efficiency and customer convenience
- **Renewable Energy Financing**
 - Investment in solar, wind, and clean energy projects
 - Promotes sustainable development and energy transition
 - Enhances long-term growth opportunities
- **ESG-Based Credit Risk Assessment**
 - Evaluates borrowers on environmental, social, and governance criteria
 - Helps identify hidden risks in lending decisions
 - Strengthens responsible and ethical banking
- **Corporate Social Responsibility (CSR) Initiatives**
 - Focus on financial inclusion, education, healthcare, community welfare
 - Enhances social impact and brand reputation
 - Builds trust among stakeholders

7. Challenges in Sustainable Banking

- **Lack of Standardized ESG Metrics**
 - No uniform framework for measuring sustainability
 - Difficulty in comparison across banks
- **High Implementation Costs**
 - Investment required in technology, systems, and training
 - Difficult for small and developing banks
- **Limited Awareness Among Stakeholders**
 - Lack of understanding about sustainable banking benefits
 - Low demand for green financial products
- **Data Availability and Reporting Issues**
 - Inconsistent and unreliable ESG data
 - Challenges in transparency and decision-making
- **Regulatory Inconsistencies**
 - Different rules across countries
 - Difficulty for multinational banks to maintain uniform practices

8. Discussion

The analysis of sustainable banking practices and challenges highlights that sustainability has evolved from a voluntary initiative to a strategic necessity for financial institutions. Banks are increasingly recognizing that integrating sustainability into their core operations is essential not only for ethical and environmental reasons but also for achieving long-term financial success. Sustainability contributes significantly to enhancing financial performance by improving operational efficiency, reducing costs, and strengthening brand reputation. It also plays a vital role in risk management by enabling banks to identify and mitigate environmental and social risks. Furthermore, sustainable practices enhance stakeholder relationships by building trust and



credibility among customers, investors, and regulators. However, the widespread adoption of sustainable banking is hindered by several challenges, including lack of standardization, high implementation costs, and limited awareness. These barriers indicate that while the importance of sustainability is widely acknowledged, its practical implementation still requires significant efforts. To address these challenges, there is a need for greater collaboration among regulators, financial institutions, and stakeholders. Policymakers must develop standardized ESG frameworks and provide clear guidelines to ensure consistency and comparability. Banks should invest in capacity building and awareness programs to promote understanding of sustainability practices. Additionally, technological advancements can be leveraged to improve data collection, reporting, and analysis.

9. Conclusion

The growing importance of sustainability in the banking sector represents a fundamental shift from traditional profit-oriented models to responsible and inclusive financial systems. Sustainable banking integrates environmental, social, and governance considerations into financial decision-making, thereby contributing to both economic growth and societal well-being. The adoption of sustainable practices not only supports environmental conservation and social development but also enhances financial performance and risk management. Banks that actively embrace sustainability are better equipped to respond to emerging challenges, adapt to changing regulatory environments, and maintain a competitive edge in the market. However, achieving the full potential of sustainable banking requires overcoming key challenges such as lack of standardized frameworks, high costs, and data limitations. Future research should focus on developing robust ESG measurement tools, improving data transparency, and evaluating the long-term impact of sustainability initiatives on banking performance. In conclusion, sustainability is no longer an optional aspect of banking but a critical determinant of long-term growth, resilience, and success. As the global economy continues to evolve, banks must play a proactive role in driving sustainable development and creating a more inclusive and environmentally responsible financial system.

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