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Green Capital: A Sustainable Energy For Indian Banking Industry Through Strategic Financial Investments.

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Abstract:

This study explores the imperative for the Indian banking industry to embrace green capital as a catalyst for sustainable energy initiatives. With a focus on strategic financial investments, the paper underscores the urgency of aligning banking practices with India's environmental goals. By examining successful case studies, emerging trends, and regulatory frameworks, the research delineates the transformative potential of green investments. It highlights collaborative efforts between financial institutions, governmental bodies, and the private sector in driving sustainable energy projects. The abstract emphasizes the dual benefits of green capital – contributing to environmental conservation and generating long-term economic returns. The integration of environmental, social, and governance factors into financial decision-making processes is discussed, providing insights into risk mitigation. The study concludes by advocating for the Indian banking industry's pivotal role in reshaping the economic landscape through responsible and sustainable financial practices. This research aims to guide stakeholders in navigating the evolving green finance domain, fostering a resilient and eco-friendly trajectory for the Indian banking sector.

Keywords: Green Capital, Sustainable Energy, Banking Industry, Strategic Financial Investments.

Introduction:

In the face of escalating global concerns over climate change and environmental sustainability, industries worldwide are undergoing a paradigm shift towards eco-friendly practices. Among these, the financial sector stands as a key player, wielding the power to influence positive change through strategic investments. This paper delves into the pivotal role of green capital in shaping the future of the Indian banking industry. As a rapidly developing economy with ambitious environmental targets, India faces the dual challenge of economic growth and carbon footprint reduction. Against this backdrop, the concept of green capital emerges as a transformative force, signifying the strategic deployment of financial resources towards sustainable energy initiatives. This introduction sets the stage for a comprehensive exploration of how the Indian banking sector can navigate this juncture, emphasizing the integration of strategic financial investments to not only meet environmental objectives but also secure long-term economic viability. By examining successful models, emerging trends, and regulatory frameworks, this study seeks to elucidate the opportunities and challenges associated with embracing green capital, positioning the banking industry as a driver of positive change in India's pursuit of a sustainable and resilient future.

Review of Literature:

Mohsin, Iqbal & Iram (2023) investigates the long-term impact of green spending on the nation's economy, emphasizing the role of green finance in mitigating environmental risks in developing economies. By exploring market-based investments that factor in environmental impact during risk assessment, the study seeks to enhance the financial sector, contribute to environmental improvement, and foster economic development, ultimately aiming to elevate the value of the environment and natural capital for the well-being of humans. Sahoo (2023) has explained that to ensure their stability, banks should adopt green accounting practices in lending decisions to tackle risks and adhere to environmental regulations. By integrating environmental considerations into their operations, banks play a pivotal role in fostering a sustainable economy and meeting the rising demand for environmentally responsible financial services. This research paper aims to delve into the concept of green accounting, its practices, and its implementation within the banking industry in India. Zakari & Khan (2022) examines the impact of green finance on environmental sustainability across the top 11 countries in environmental protection investment from 2006 to 2017. Utilizing panel-corrected standard errors and the feasible generalized least squares model, the findings reveal a positive association between green finance and environmental sustainability, while highlighting the detrimental effects of energy consumption and urbanization on the environment. Benevene, et.al (2021) examines the role of Green Intellectual Capital (GIC) in promoting sustainability in organizations, covering the literature from 2008 to 2020. Despite the increasing recognition of GIC, the scarcity of reliable data is highlighted. The review focuses on GIC outcomes, antecedents, and mediation-moderation factors, emphasizing its significance. Valuable for researchers and practitioners, the paper encourages a practical debate to bridge the theory-practice gap and urges organizations towards environmentally conscious practices. Yet, Meo & Abd Karim (2021) contends that the effectiveness of green finance in promoting a green environment can vary over time and across seasons. In the study by Tran

(2021) on Vietnam, a unidirectional connection is identified between green finance and environmental sustainability, while Peng & Zheng (2021) criticize green finance for prioritizing energy efficiency over green innovation, hindering the latter's progress.

Kanakaraju (2018) identifies potential strategies for quantifying environmental issues and evaluates the role of green accounting in facilitating sustainable accounting systems. These research papers collectively contribute valuable insights into comprehending and applying environmental accounting. Tarun and Ramu (2018) specifically highlight the conceptual framework of green accounting and reporting, discussing its scope, and limitations, and concluding that well-defined environmental policies are imperative for achieving sustainable development. Anil Kumar (2018) explains the concept of environmental management accounting and its significance for businesses, asserting that green accounting in India is in the developmental stage and recommending it as a prime method for sustainable development. Collectively, these studies illuminate the present state and significance of green accounting practices in India. Islam and Rahman (2015) analyze the implementation of green accounting in Bangladesh, examining the current status of such practices across various sectors. The paper underscores the necessity for collaborative efforts between the public and private sectors to enhance green accounting, emphasizing the joint responsibility for the system's effective functioning. In a distinct study, Rajesh and Dileep (2014) conclude that Green Banking necessitates the adoption of practices and guidelines to make banks sustainable across economic, environmental, and social dimensions. They emphasize the importance of considering environmental risks, implementing safety measures, and establishing incentives for responsible banking to facilitate the development of green banking. Moorthy and Yacob (2013) emphasize the crucial role of green accounting in proactively facilitating environmental planning within enterprises. This approach enables the recognition of enhanced environmental performance, ultimately leading to improved profitability. Dharwal and Agarwal (2013) conducted a study on green banking, underscoring its significance in mitigating credit risk, legal risk, and reputation risk for banks. They propose several green banking strategies to achieve these risk mitigation goals.

Research Methodology

Secondary sources, including research articles, journals, magazines, websites, and the annual reports of banks, along with information from RBI websites, were utilized for data collection. The compiled data is systematically presented in tabular form and subsequently interpreted.

Objectives of the study:

1. Assess the degree of green capital integration within the Indian banking industry through strategic financial investments.
2. Identify key factors contributing to the success of green capital initiatives and their impact on sustainable energy projects.
3. Examine the dual benefits of green capital, focusing on its contribution to environmental conservation.

4. To investigate the integration of environmental, social, and governance (ESG) factors into financial decision-making processes.

Theoretical Background:

Green Capital refers to financial resources, investments, or capital that is specifically allocated towards environmentally sustainable and socially responsible initiatives. Green capital in Indian banking implies a commitment by financial institutions to direct funds and resources into projects and activities that have a positive impact on the environment and society. This concept aligns with the broader principles of sustainable finance and responsible banking.

Key aspects of Green Capital in Indian banking include:

- **Sustainable Lending and Investments:** Indian banks may focus on providing loans and investments to projects that contribute to environmental sustainability, such as renewable energy, clean technology, and eco-friendly initiatives.
- **Environmental and Social Risk Management:** Banks incorporate environmental and social risk assessments into their lending and investment decisions. This involves evaluating the potential impacts of financial activities on the environment and society.
- **Compliance with ESG Standards:** ESG (Environmental, Social, and Governance) criteria are integrated into the decision-making processes of Indian banks. This involves considering factors related to environmental conservation, social responsibility, and governance practices when evaluating investment opportunities.
- **Promotion of Sustainable Practices:** Banks may actively promote and support sustainable business practices among their clients, encouraging environmentally friendly and socially responsible approaches to business operations.
- **Reporting and Transparency:** Green capital initiatives in Indian banking often involve transparent reporting on the environmental and social impact of financial activities. This allows stakeholders to assess the bank's commitment to sustainability.

As sustainability becomes a focal point globally and in India, the banking sector is increasingly recognizing the importance of green capital in contributing to long-term environmental and social well-being while also ensuring financial stability and profitability. Regulatory bodies and industry standards may guide Indian banks in incorporating green and sustainable practices into their operations.

Table No 1

Representing of Renewable Energy Investment by Indian Banks

Types of Banking Investors in Renewable Energy in India			
Types of Banks	Category	Total Registered in India	Active in the Renewable sector
Commercial Banks	Public Sector Banks Private Sector Banks Foreign Banks	26 30 37	9 6 0
Development Banks	Development financial institutions such as IREDA, IFCI, SIDBI	3	3

Source: CPI (2012)

A detailed bank financing of renewable energy projects reveals that about $2,570 million has been committed by several banks. The data shows that the State Bank of India contributes a major share percentage for investment in renewable energy projects.

Table No: 02

Percentage Share of Total Committed Amount by Banks

Name of the Bank	**Share of Total Committed Amount (%)**
SBI	12.6
Yes Bank	10.2
Indus Bank	9.3
Union Bank of India	5.3
Bank of Baroda	4.2

Source: CFA (2018)

Strategic Financial Investments by Indian Banks in Green Capital

Indian banks are currently engaging in strategic financial investments in green capital as a sustainable energy initiative. These investments manifest through various avenues such as green bonds, green loans, green banking, infrastructure debt fund, crowd funding, and other diverse forms. The following discussion outlines the bank-level green capital investments that Indian banks have embraced to enhance their performance levels.

1. ICICI Bank

- As of March 31, 2022, the Bank's outstanding portfolio in sectors like renewable energy, electric vehicles, green-certified real estate, waste management, small-scale khadi, and handicrafts amounted to approximately ₹73.80 billion.
- An extra 0.80 million square feet of the Bank's premises received certification from the Indian Green Building Council (IGBC) for their green building rating.
- The total area with IGBC certification grew from 2.28 million square feet in fiscal 2021 to 3.09 million square feet in fiscal 2022.
- The Bank added 260 KW of solar power capacity during fiscal 2022, resulting in a cumulative renewable energy installed capacity of 3,174 KWP.
- The Bank also increased its supply of renewable power under power purchase agreements, and renewable sources contributed to about 7% of energy consumption in fiscal 2022.

2. State Bank of India

- Since FY 2018-19, Green Bonds & Green Loans worth US$800 million have been issued, with the proceeds earmarked for projects with a positive environmental impact.
- In FY 2020-21, the Bank raised a green loan worth €50 million, further supporting environmentally friendly initiatives.
- The Sustainability Linked Loans portfolio stands at approximately US$1 billion, reinforcing the bank's commitment to sustainable finance.
- In November 2021, SBI listed US$650 million in green bonds on the India International Exchange (India INX) and Luxembourg Stock Exchange, in line with the 'Sustainable Finance' theme for World Investor Week, as per International Financial Services Centres Authority (IFSCA).
- As of 31st March 2022, SBI has invested over ₹32,000 crores in various solar, wind, biomass, waste-to-energy, and hydro projects, which have contributed to an incremental capacity of over 6,900 MW during the year.
- The bank has sanctioned ₹19,766 crore for Solar Power (rooftop and ground-mounted), ₹2 crore for Biomass, ₹28 crore for waste to energy, ₹7,601 crores for small Hydro/Hydro, and ₹5,077 crore for wind projects as of 31st March 2022, demonstrating its significant commitment to renewable energy initiatives.
- To promote cleaner fuel usage and environment-friendly practices, SBI has sanctioned ₹12.06 crores towards e-rickshaws.

- Notably, SBI has sanctioned more than ₹30,000 crores for renewable energy projects, reaffirming its dedication to driving India's transition to sustainable energy sources.

3. Punjab National Bank (PNB)

- Punjab National Bank (PNB) sanctioned nine wind energy projects worth ₹185.81 crores and earned the second prize for Best Wind Energy Power Financer at Wind Power India 2011.

4. AXIS Bank:

- As of March 31, 2020, Punjab National Bank's total exposure to 'sustainable' sectors, encompassing renewable energy (including large hydro), urban mass transport, and green buildings, amounted to ₹64.47 Billion.
- Aligned with Climate Bonds Initiative's Standard version 2.1, the bank introduced its Green Bond Framework. By March 31, 2021, the bank had achieved a funded green exposure of ₹46.05 Billion through Green bond issuance.

Several other banks have also made substantial investments in green initiatives through Corporate Social Responsibility (CSR) and various other activities. The researcher has not mentioned other banks' data due to the unavailability of reliable information.

Table No: 3

Green Banking Practices by Indian and Foreign Banks

Sl. No	Name of the Banks	Green Banking Implementation Year
1	Union Bank of India	1996
2	City Group INC, HSBC Bank, ING Vyasa Bank, RBS, Syndicate Bank, Standard Charted Bank	2003
3	Yes Bank, Corporation Bank	2005
4	Bank of America, JP Morgan Bank	2006
5	ICICI Bank, OBC, State Bank of India	2007
6	Bank of Baroda, Karnataka Bank, Dena Bank, Industrial Bank	2008
7	HDFC, Indian Overseas Bank, PNB, Kaur Vyasa Bank, Andhra Bank	2009
8	Axis Bank, Kotak Mahindra Bank, South Indian Bank	2010
9	Canara Bank, IDBI Bank, EXIM Bank	2011
10	IDFC Bank	2013

Source: Money Control

The above table shows Green Banking Practices by Indian and Foreign Banks through green capital investment.

ESG Committee for Management of Green Capital by Indian Banks.

Several banks have formed committees to oversee environmental and social aspects:

HDFC Bank: Established an Environmental Social & Governance (ESG) committee comprising senior members across functions, further divided into 3 sub-committees:

• Environment Sub-Committee: Sets targets and identifies improvement opportunities in emissions, energy, water, and waste.

• Social & Governance Sub-Committee: Focuses on workplace policies, diversity, stakeholder engagement, and corporate governance.

• Product Responsibility Sub-Committee: Assesses E&S risks in the portfolio and identifies new business opportunities in the E&S space.

These sub-committees include members from various functions to identify ESG-related risks and their financial impacts on the Bank.

Union Bank of India ESG Steering Committee:

- The Bank incorporates climate risk and sustainability in decision-making. Policies and procedures are being established, and stakeholders are identified for managing ESG risk.
- An ESG Cell at the operational level will be formed, comprising members with expertise and responsibilities for research and implementation.

State Bank of India (SBI):

- Circle Sustainability Committees (CSC) are set up to monitor sustainability performance at the Circle level. DGM Sustainability oversees overall sustainability performance management, executes initiatives, conducts awareness programs, and publishes the annual sustainability report, among other responsibilities.
- The Bank's Corporate Centre Sustainability Committee (CCSC) undertakes the execution of the Sustainability and Business Responsibility (BR) Policy.
- This policy helps in aligning the Bank's sustainability strategy with its business strategy and identifies the key environmental and social areas.
- Further, it outlines SBI's approach to managing economic, environmental, and social performance in an integrated manner.

Findings of the study:

- Indian banks are increasingly integrating green capital through instruments such as Green Bonds, Green Loans, and innovative financial avenues.
- Diverse investment channels, including Infrastructure Debt Funds and Crowd Funding, are being utilized by banks for sustainable energy projects.
- Key banks like ICICI Bank and State Bank of India exhibit a significant commitment to green capital, evident in their outstanding portfolios and renewable energy investments.
- The study highlights the establishment of Environmental, Social, and Governance (ESG) committees by banks, emphasizing a holistic approach to sustainable financial practices.

Conclusion:

The study underscores the pivotal role of green capital in steering the Indian banking industry towards sustainable energy initiatives. The findings reveal a growing commitment among banks to strategically invest in green capital through various instruments, reflecting a broader industry shift towards environmental responsibility. Leading banks such as ICICI Bank and State Bank of India have demonstrated noteworthy dedication to renewable energy projects, contributing significantly to the sector's growth. The establishment of ESG committees reflects a proactive approach to incorporating environmental, social, and governance factors into banking practices. As India advances towards its environmental goals, the study advocates for continued collaboration between financial institutions, government bodies, and the private sector, emphasizing the transformative potential of responsible and sustainable financial practices for a resilient and eco-friendly future.

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