

IMPACT OF GREEN INVESTMENT PRACTICES ON DIGITAL INDIA GOALS 2026

** Ashish Kothari & ** Dr. Chandra Iyer*

** Student Researcher & ** Research Guide, B.K. Birla College, Kalyan (Empowered Autonomous)*

Abstract:

The 21st century's environmental degradation has reshaped economies, urging a shift towards sustainable practices reflected in the UN's Sustainable Development Goals (SDGs). Climate change disrupts economies, emphasising the need for eco-conscious approaches. India's growth amid industrialisation prompts scrutiny of green investment's impact on its Digital India Goals 2026. The research addresses financial infrastructure deficiencies prioritizing short-term gains over sustainable impacts, hindering resource allocation to eco-friendly projects. Lack of awareness impedes capital flow towards green initiatives, slowing progress for a sustainable economy. Ethical risks in data exploitation threaten cybersecurity and societal trust. Objectives encompass understanding green investment's impact on India's digital economy, gauging public attitudes towards sustainability, and evaluating digital initiatives for enhanced strategies. The study's importance lies in bridging investor awareness gaps to facilitate India's attainment of its Digital India Goals. Analytical and descriptive methods with primary and secondary data collection and hypothesis testing form the research methodology, limited by sample size and study duration. The literature review highlights challenges for green entrepreneurs, the impact of green financing strategies like green bonds, incumbents' struggles in adopting green tech, the limited impact of green banking, and the necessity for increased private sector involvement in green digital financing. Barriers like cost, trust, and digital illiteracy hinder green finance adoption. Security concerns also affect digital financial transactions. The research delves into India's pursuit of sustainability, outlining challenges, objectives, methodologies, and key findings from an extensive literature review, highlighting the urgency of embracing green investment for a sustainable digital future.

Keywords: *Sustainable Growth, Green Investment, Digital Initiatives, Financial Infrastructure*

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Introduction:

In the 21st century, environmental degradation has reshaped economic, business, and societal landscapes, leading to the establishment of the United Nations' Sustainable Development Goals (SDGs). Climate change exacerbates these challenges, urging a fundamental shift in consumption and production practices towards a green economy. This transition necessitates the proactive engagement of innovators and sustainable investment practices to address social and environmental concerns. Amid rapid

industrialization, the Indian economy seeks to align with global growth trends while pursuing Digital India Goals 2026. Research on the impact of green investment practices becomes crucial in this context, as it can facilitate the achievement of these goals while fostering sustainability. This endeavour reflects a collective aspiration towards a sustainable future, emphasising the interconnectedness of nations and the imperative of responsible stewardship: One Earth, One Family, One Vision (Halder, 2019).

Research Methodology:

Research Questions: The research focuses on the following problem:

- 1) **Deficiency in Sustainable Financial Infrastructure:** Traditional financial models prioritize short-term gains, leading to insufficient investment in sustainable projects and eco-friendly companies, hindering the promotion of a socially conscious and environmentally responsible economy.
- 2) **Challenges in Recognizing and Encouraging Green Investments:** Limited awareness hinders investment flow into sustainable projects, impeding progress towards a green economy. Addressing this requires raising awareness about the benefits of green investments and encouraging broader participation in sustainable finance.
- 3) **Ethical Risks in Data Exploitation and Misuse:** Data weaponization threatens privacy and cybersecurity, exploiting extensive data collections for manipulation and cybercrimes. Inadequate protection measures exacerbate risks, necessitating robust safeguards to mitigate threats and protect individuals and society.

Research Objectives:

- 1) To explore the impact of green investment practices on India's digital economy.
- 2) To understand public attitudes towards green investments for a sustainable future.
- 3) To evaluate current digital initiatives in the Indian economy to propose strategies for enhanced digitalisation.

Research Hypothesis:

This research focuses on validating the significant relationship between India's efforts to create favourable environments for green investment practices. Hypotheses in this study centre on Business Freedom, Trade Freedom, Sustainable Development Goals, Labor Freedom, Innovation, and Regulatory Quality,

which are crucial factors in fostering such environments in India. Using these indices, researchers and policymakers can assess various aspects of the business environment and regulatory framework, aiding in the implementation of targeted policies to attract and promote green investments in the country.

Significance of Research:

The study holds immense significance as economies worldwide pivot towards sustainability. India, in its pursuit of a sustainable future, incentivizes businesses to adopt renewable sources. Yet, a pressing issue persists - the lack of investor awareness regarding green investments and addressing this concern is crucial.

Methodology and Limitations:

The research uses analytical and descriptive methods, supplemented by extensive research into secondary data through diverse online sources. It conducts hypothesis testing via a Correlation Matrix for data analysis. Limitations are subject to sticking to the secondary data and study duration (2018-2023).

Review of Literature:

In today's interconnected world, addressing global challenges such as climate change and environmental degradation requires a multifaceted approach that considers various perspectives and stakeholders. By aligning *Earth, Family, Vision and Sustainability*, we can foster sustainable development and green investment practices in India.

- **Earth (Business - Polycentric):** In India, green investment practices are polycentric, tailored to diverse business landscapes. Companies invest in renewables, eco-friendly manufacturing, and sustainable supply chains, collaborating with communities to leverage indigenous knowledge for inclusive green growth.
- **Family (People - Geocentric):** Green investments in India prioritize community well-being, focusing

on clean water, renewable energy, and social equity promotion. Empowering marginalized groups fosters resilient, cohesive societies across diverse landscapes.

- **Vision (Infrastructure - Regio-centric):** In India, region-centric green investment prioritizes sustainable infrastructure development, including eco-friendly transportation, renewable energy, waste management, and green buildings. Integrating environmental considerations enhances resource efficiency and fosters green spaces for improved urban and rural living.
- **Sustainability (Government and Regulation - Ethnocentric):** Government policies in India shape green investment, emphasizing environmental protection and renewable energy adoption. Initiatives like the National Action Plan on Climate Change incentivize green finance through financial incentives and tax breaks, promoting sustainability goals and supporting environmentally responsible businesses.

Current research highlights that green entrepreneurs face considerable risks in innovating, formulating corporate strategies, and balancing environmental protection with revenue generation. According to (Haldar, 2019), numerous hurdles hinder the development of a supportive innovation ecosystem and entrepreneurship in India. These challenges involve uncertain policy environments, ineffective policy implementation, limited investments in R&D, complex funding procedures, a scarcity of early-stage funding, weak connections between stakeholders and markets, education system misalignment, inadequate rural infrastructure, entrepreneur risk aversion, and ineffective management of Intellectual Property Rights (IPR). Additionally, government policies favouring large enterprises over Small and Medium Enterprises (SMEs) discourage investment in green businesses, contributing to risk aversion among banks, financial

institutions, and investors. According to (Lin Wanga Azer Dilanchievb, 2022), the onset of the Global Financial Crisis (GFC) marked a critical shift towards environmental sustainability, drawing the attention of policymakers and experts towards green financing.

Green bonds support ecologically responsible economic growth, but the adoption of Environmentally Responsible Investment (ERI) influences the Green Industrial Evolution (GIE). This shift in business and environmental landscape can sometimes hinder progress due to stringent environmental standards, discouraging investment in green technology. Research underscores the varied impacts of environmental regulations on green technology innovations and investment decisions. As per (David Bendig, 2022), large organizations, despite abundant resources, face challenges in adopting new technologies effectively, hindering their ability to drive green transformation in existing and emerging markets. Despite heightened financial risks, strategic motives for incumbents investing in green startups include demonstrating a commitment to sustainability, amplifying environmental and social impacts, and accessing technological expertise to create value within the parent firm. (VIKAS NATH¹, 2014) contends that Indian banks are trailing their counterparts in embracing green banking, which stands as a proactive approach toward future sustainability.

Despite the growing adoption of green practices within banking, the evident impact on the environment remains limited. Although banking activities themselves are not directly linked to environmental concerns, the peripheral impact stemming from customer activities results in significant carbon footprints. (Vijeta Singh, 2022) While public funding remains the primary source of green digital financing in India, there's an urgent need for increased private sector involvement. The inadequacy of public funding may not sufficiently address the gap for achieving sustainable growth and

investing in climate response and natural resources. Various barriers such as cost, network externalities, trust issues, limitations in human environmental capabilities, and high levels of digital illiteracy significantly hinder the adoption of green digital finance. Additionally, concerns about the security of digital financial transactions are crucial, as any sense of insecurity associated with technology usage can create ambiguity among users.

Numerous innovative startups, leveraging technologies like artificial intelligence and the Internet of Things, are emerging, necessitating mainstream support, as indicated by the Business Freedom Index (score- 64.3) (Mukul Bhatnagar, 2022) (BADRI, 2023). India's green financing landscape offers impactful investment opportunities, aligning financial gains with positive environmental and social outcomes, reflecting insights from the Trade Freedom Index (score- 59.8) (GUPTA, 2023) (Journal, 2023). Anticipating government action on green financing, private sector organizations must adopt internal carbon pricing and invest in green technologies to address environmental challenges effectively (Singh, 2023). Collaboration among government, academia, and industry is vital for the successful rollout of innovative green financing mechanisms, aligning with the net-zero economy transition goal by 2070 (Saha, 2023). Securing financial resources for environmentally friendly technology poses challenges, hindering progress. However, technological innovation in

Data Analysis and Discussions:

The correlation matrix shows relationships between indices like Business Freedom (BFI), Trade Freedom (TFI), Sustainable Development Goals (SDGI), Labor Freedom (LFI), Global Innovation (GII), and Regulatory Quality (RQI), indicating strengths and directions of relationships (Foundation, 2023) (Report, 2023) (Index, 2023) (Bank, 2023).

industries helps overcome hurdles in adopting sustainable practices, as indicated by the Global Innovation Index (score- 40.0) (Rohit Agrawal, 2023) (Sharma, 2023).

Fintech firms with strong cybersecurity measures offer significant social and economic advantages, fostering financial inclusion and supporting small business growth (Pal, 2023).

Regulatory fragmentation necessitated a unified approach across legislation in India, with SEBI's implementation of BRSR and ESG rating standards urging corporate India to adopt sustainable practices, as reflected in the Regulatory Quality Index (score- 50.9) (Chauhan, 2023). Moreover, the e-commerce sector must address its environmental impact during festive seasons, as highlighted by the excessive packaging and energy usage, emphasizing the need for sustainability, as seen in the Business Freedom Index (score- 64.3) (Purkayastha, 2020) (Sarkar, 2023). This journey towards sustainability reflects a conscious effort to integrate eco-friendliness into e-commerce operations, benefiting both the industry and the planet (Freytag, 2020). The utilization of Aadhaar, affordable mobile data, and the Jan Dhan Yojana has facilitated significant strides in financial inclusion, especially for women, underscoring India's prowess in leveraging digital infrastructure, as indicated by the Jan Dhan Yojana and Sustainability Development Goals Index (score- 63.5) (Berhe, 2022) (Shijie Li, 2022).

Table 1: Indices Data

Indices	BFI	TFI	SDGI	LFI	GII	RQI
2019	57.1	72.4	62.2	41.8	52.0	47.1
2020	65.6	73.4	62.6	41.2	48.0	46.7
2021	76.7	69.4	62.8	41.3	46.0	49.0
2022	63.9	71.0	63.5	58.2	40.0	50.9
2023	64.3	59.8	63.8	58.1	40.0	51.9

Source: Secondary Data

The table showcases six indices (BFI, TFI, SDGI, LFI, GII, RQI) from 2019 to 2023, offering insights into economic, trade, innovation, labour, and legal factors globally, guiding strategic decisions for policymakers and businesses

H₀: There is no significant relationship between India's initiatives aimed at fostering conducive environments for green investment practices.

Table 2: Correlation Matrix

Indices	BFI	TFI	SDGI	LFI	GII	RQI
BFI	1					
TFI	-0.1023	1				
SDGI	0.1443	-0.7585	1			
LFI	-0.2011	-0.6308	0.9224	1		
GII	-0.2259	0.6419	-0.9831	-0.9008	1	
RQI	0.1437	-0.7883	0.9491	0.9068	-0.9274	1

The correlation matrix table illustrates relationships between variables. Through analysis, we reject the null hypothesis, confirming a significant relationship between India's efforts to promote green investment environments, as indicated by the correlation values.

Figure 1: Interpretation of Correlation Established

Correlation	Very High			High		Moderate	Low	Negligible	
	RQI & SDGI	SDGI & LFI	LFI & RQI	-	-	TFI & GII	-	SDGI & BFI	BFI & RQI
Positive									
Negative	SDGI & GII	GII & RQI	GII & LFI	RQI & TFI	TFI & SDGI	LFI & TFI	-	BFI & TFI	GII & BFI

Based on the analysis we found that:

1. Deficiency in Sustainable Financial Infrastructure:

The correlation matrix shows a negative correlation

(-0.1023) between BFI and SDGI, indicating a potential conflict between business focus and

sustainable development goals. Moderate correlations between infrastructure indices (TFI and GII) highlight the importance of sustainable infrastructure for green investment. Additionally, a moderate negative correlation between BFI and TFI suggests the need for businesses to balance

economic and trade complexities for sustainable growth.

2. Challenges in Recognizing and Encouraging Green Investments: The correlation matrix reveals a moderate positive correlation (0.6419) between TFI and GII, indicating technologically advanced countries tend to foster more innovation. Positive correlations between SDGI and LFI emphasize the role of societal well-being in promoting green initiatives.

3. Ethical Risks in Data Exploitation and Misuse: The correlation matrix unveils a strong negative correlation (-0.9831) between SDGI and GII, suggesting nations emphasizing sustainable goals may face innovation hurdles. Strong positive correlations of RQI with various indices underscore the vital role of government regulations in promoting green finance.

Summary of findings:

This research highlights the need to balance economic freedom and social development in India, stressing the significance of sustainable infrastructure for green investments. It underscores the critical role of government regulations in supporting green finance and sustainable development.

1. Addressing deficiencies in sustainable financial infrastructure requires research to reshape systems for sustainability while maintaining business-friendly policies.
2. To boost green investments, research should focus on leveraging technology for innovative solutions in renewable energy and sustainable infrastructure, attracting more investments.
3. Managing ethical risks of data exploitation entails exploring ways to align data analytics and cybersecurity with sustainability goals, ensuring ethical data practices while fostering innovation.

Suggestions:

This research aims to bridge the gap by exploring how

diverse financial models tied to green investments can aid India's Digital India Goals. Recommendations under PEARL (Promoting Environmental Awareness and Responsible Leadership) aim to overcome hurdles and promote green finance, supporting broader sustainability objectives.

1. Public Awareness Campaigns: Launch comprehensive public awareness campaigns to educate investors, financial institutions, and the general public about the benefits and potential returns associated with green investments. Utilize various media channels and educational platforms to disseminate information about sustainable finance and its positive impact on the economy and environment.

2. Encourage Green Investment Incentives: Advocate for government policies that incentivize green investments through tax breaks, subsidies, and grants. By providing financial incentives for investing in sustainable projects and companies, governments can stimulate greater participation in green finance and accelerate the transition to a sustainable economy.

3. Adopt Ethical Data Practices: Implement robust data protection measures and ethical guidelines to prevent the misuse and exploitation of data for unethical purposes. Encourage businesses and financial institutions to prioritize data privacy and cybersecurity to build trust and confidence among investors and consumers in digital financial transactions.

4. Research and Development Funding: Allocate funding for research and development initiatives aimed at advancing green technologies and innovative solutions for environmental sustainability. Support startups and entrepreneurs working on green projects by providing grants, mentorship, and access to resources to foster innovation and accelerate the development and

adoption of sustainable technologies.

5. Legislative Reforms: Advocate for legislative reforms to strengthen environmental regulations and promote responsible business practices. Implement policies that require companies to disclose their environmental impact and sustainability efforts, fostering transparency and accountability in corporate governance. Additionally, introduce measures to penalize environmental violations and incentivize companies to adopt sustainable practices.

Conclusion:

In conclusion, embracing green investment practices is pivotal for India's sustainable development and Digital India Goals 2026. Implementing the PEARL recommendations offers a strategic framework to address challenges and capitalize on opportunities for green finance. Through collaborative efforts, India can lead the way in sustainable development, fostering social inclusion and environmental stewardship for a greener future.

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