

Challenges of implementing green finance initiatives in India: A quantitative investigation

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Abstract

As the world faces severe issues of environment degradation, pollution and climatic concerns, development and implementation of sustainable financial practices is a prerequisite for environment protection and resource conservation. The incorporation of environmental considerations into financing that marks the foundation idea of green financing facilitates towards fostering a financial environment of resilience, growth and sustainability. However, the implementation of various green initiatives in India often faces several challenges in terms of diverse social, economic and environment barriers. India being a diverse landscape, with a complex interplay of various social and economic aspects prioritizes infrastructure development and poverty alleviation at the macroeconomic level compared to investments in development projects that integrate environmental considerations. Moreover, lack of awareness regarding green instruments, perceptions and behaviour of investors, regulatory gaps, policy inconsistencies, lack of standardized metrics as well as limitations in understanding and evaluating environmental outcomes of green finance initiatives also do impact the growth and success of such initiatives in India. By understanding the research gaps and challenges that persist in this arena will help to develop ways that help tackle the problems which negatively impact effective implementation of these initiatives and also help build a financial and regulatory framework that works towards sustainable environment. The researcher had conducted the study survey with the help of a questionnaire on 108 environmentalists to know the challenges and impact of implementing green finance initiatives in India. The study concludes that there is significant impact of different challenges on implementation of green finance initiatives in India.

Keywords: Green Finance, Initiatives, Challenges, Sustainable, India, Implementation, Environment, Development

Introduction

In recent years, there is an emerging need for the advancement of sustainable development practices in order to tackle alarming challenges raised by climatic and environment degradation. India, being one of the fastest growing economies of the world, play a pivotal role in this global narrative, bringing into effect various green start ups and initiatives that promote sustainable development. The incorporation of environmental aspects and considerations into financing give shape to the concept of green finance, rising as one of the powerful ways of fostering growth and success through a financial domain that prioritizes the concerns of environment. However, the implementation of green initiatives as well as building a sustainable financial ecosystem in India do face several challenges considering the diverse landscape of the nation.

The implementation of green finance initiatives refers to the growth of finance and economy through establishment of various environment friendly project and activities. The intrinsic interplay of diverse social, economic and environmental factors plays huge role in ensuring the success of these implementations. India being a country that has a very dynamic and ever evolving economy struggles with issues such as policy inconsistencies, lack of organization, regulatory gaps, lack of awareness regarding green instruments and lack of knowledge on assessing and monitoring green investments. These struggles impact the funding and investment towards green initiatives hindering the growth of green finance start ups in the nation. Soundarrajan (2016) mentions how country-specific barriers create risks in terms of management and problems in relation to investments reducing the attractiveness of such initiatives. Moreover, people are only getting familiarized with green instruments such as green bonds and sustainable loans. This also affect financial institutions in effectively assessing and evaluating requirements for green initiatives, hindering the implementation and growth of these projects.

The developmental priorities of a nation like India revolves around poverty alleviation, economy enhancement as well as development of basic amenities and infrastructure. The balancing of immediate social and economic needs of an ever-expanding population along with environmental considerations pose immense challenges that affect the expansion of sustainable development projects. However, the future of the nation as well as the global depends largely on such environment

friendly initiatives amidst the increase of distressing environment degradation and climatic concerns. The study of challenges that hinder the progress of green financing in the nation not only help identify unique issues that persist in this sector but also help policymakers develop better ways that facilitate towards sustainable and resilient ecosystem in the nation.

Literature Review

The integration of environmental considerations into financing is a crucial step towards ensuring sustainable ecosystem in the nation. However, implementation of such green finance initiatives results in several unique challenges with respect to diverse socio-economic and environmental factors, hindering proper investment in these projects. The existing literature review in this arena explores various challenges and problems that impact effective functioning of green initiatives in India.

Wasan, Kumar and Luthra (2021) in the research conducted identify policy, economic and knowledge barriers as the three top barriers that affect the implementation of green finance in India. The research emphasizes the urgent necessity for increasing investments towards green initiatives as emerging economies face an annual green financing gap of almost 2.5 trillion dollars. The role of investors in providing financial assistance to green developers is a crucial factor that affect the implementation of green initiatives. Investors often face various challenges in terms of risk and investment return that influence their decision making on spending funds in such green initiatives. Mohd and Kaushal (2018) also talk about the necessity for further work to increase accountability and visibility of green initiatives. It is only by increasing awareness and accountability of such projects will help attract investors to provide finance for the same. The lack of knowledge about the existing status quo of green finance negatively impacts the analysis of these projects which in turn impact the investor behaviour. Thorough analysis and understanding of the aspects of such start ups help policy makers, financial institutions, private sectors and government to derive effective implications for the implementation of green finance initiatives.

Sarma and Roy (2021) comment on how the prioritization of infrastructure development and other aspects in India negatively impact the growth and success of various green initiatives. The research also points out how the nation fails in introducing diverse green instruments that boost the success of such initiatives and also expose the nascent stage of green initiatives in India as the country currently accounts only eight green instruments among the effective eighteen across the globe. Freytag (2020) coherently indicates the lack of international investors in India's green financial market part of lack of financial sector awareness and capabilities, hindering the growth of the nation's green bond projects.

Sarangi (2018) puts forward that the challenges that affect the implementation of green finance initiatives in India is entrenched with the existing general financial ecosystem of the nation that exhibits short tenure of loans, lack of adequate debt financing etc. On the other hand, Ranaut (2021) points out various other challenges that include lack of clear and concise definition, failure in internalizing the externalities, poor framework and regulatory gaps as some of the crucial factors that hamper sustained growth of green finance initiatives. Chhaochharia (2021) in the research conducted adds how asymmetric information and lack of coordination among Indian stakeholders further increase the difficulties in establishing green projects in the nation. The persisting problems in the regulatory framework is one of the significant matters that impact growth of green finance initiatives. Inconsistent policies and existing gaps in regulatory framework reduce the financial flow towards establishment of these projects.

Baietti, Shlyakhtenko, La Rocca and Patel (2012) coherently indicate that the readiness of financial sector of the nation in embracing green initiatives play a pivotal role in ensuring the success of these projects. The research also puts forward the necessity to increase public funding in maximizing the effectiveness of these initiatives. Charles and Philip (2020) identify how financial institutions often fail in effectively assessing the portfolios of various green bond projects and initiatives often due to the lack of standardized metrics, which impact the implementation of the same. The research study lays down the significance of improving nation's focus on aiding its financial institutions to integrate environmental considerations while making decisions such that it is only through increased awareness India be able to transform knowledge to implementation of these projects.

Soundarrajan and Vivek (2016) in their research clearly points out how country-specific barriers in terms of diverse socio-economic and environmental conditions of the place affect the effective implementation of various green start ups and initiatives. In case of India, which is a growing economy, the balance of environmental aspects with broader environmental goals faces several challenges. Since the country prioritizes more on matters such as infrastructure development, advancement of basic amenities, poverty alleviation and equity of economy, the focus towards innovative projects like green finance initiatives is comparatively less comparing to other issues mentioned above. However, introducing and implementing such

green bond projects are crucial towards saving the environment especially when the entire world faces severe issues of environment degradation and climatic changes. The existing literature review that explores the research gaps in the arena of green financing help identify crucial challenges that hinder the growth of green initiatives in the nation, thereby helping develop better policies that foster the development of a green financial ecosystem.

Objective

1. To know the challenges of implementing green finance initiatives in India.
2. To know the impact of different challenges on implementation of green finance initiatives in India.

Methodology

The researcher had conducted the study survey with the help of a questionnaire on 108 environmentalists to know the challenges and impact of implementing green finance initiatives in India. The primary data is collected through “random sampling method” and data was analyzed by “mean and t-test.”

Findings

Respondent’s general details are shared in the table below where 56.5% are male and rest 43.5% are female. 19.4% are below 42 years of age, 36.1% comes in the category of 42-48 years of age group and 44.4% are above 48 years of age. 37.0% of the respondents are having the work experience of less than 5 years and rest 63.0% are working from more than 5 years in environment sector.

Table 1 General Details

Variable	Respondent	Percentage
Gender		
Male	61	56.5
Female	47	43.5
Total	108	100
Age (years)		
Below 42	21	19.4
42-48	39	36.1
Above 48	48	44.4
Total	108	100
Work experience		
Less than 5 years	40	37.0
More than 5 years	68	63.0
Total	108	100

Table 2 Challenges and impact of implementing green finance initiatives

“S. No.”	“Statements”	“Mean Value”	“t value”	“Sig.”
1.	India’s diverse landscape is major challenge in implementing green finance initiatives	3.21	2.221	0.014
2.	Green finance initiative faces complex interaction of various social and economic aspects	3.19	2.022	0.023
3.	Lack of awareness regarding green instruments	3.16	1.730	0.043
4.	Perceptions and behavior of investors is a problem for green finance implementation	3.18	1.907	0.030
5.	Implementation of green finance faces regulatory gaps and policy inconsistencies	3.20	2.153	0.017
6.	Lack of standardized metrics is a major issue for green finance initiatives	3.17	1.800	0.037

7.	Limitations in understanding and evaluating environmental outcomes of green finance initiatives	3.18	1.923	0.029
8.	Lack of international investors in India's green financial market	3.22	2.361	0.010
9.	Short tenure of loans and lack of adequate debt financing	3.19	2.015	0.023
10.	Irregular information and lack of coordination among Indian stakeholders	3.16	1.726	0.044

Table 2 is showing different challenges of implementing green finance initiatives. The respondent says that lack of international investors in India's green financial market is one of the major challenges for implementation of green finance initiative with mean value 3.22, India's diverse landscape is another challenge with mean value 3.21 and Implementation of green finance faces regulatory gaps and policy inconsistencies with mean value 3.20. The respondent shares that green finance initiative faces complex interaction of various social and economic aspects with mean value 3.19, Short tenure of loans and lack of adequate debt financing with mean value 3.19 and Perceptions and behavior of investors is a problem for green finance implementation with mean value 3.18. The respondent also says that limitations in understanding and evaluating environmental outcomes of green finance initiatives with mean value 3.18, Lack of standardized metrics is a major issue for green finance initiatives with mean value 3.17, Lack of awareness regarding green instruments and Irregular information and lack of coordination among Indian stakeholders are the challenges for implementation of green finance initiative with mean value 3.16. All statements pertaining to challenges for implementation of green finance initiative exhibit statistical significance, with p-values below 0.05 following the application of a t-test.

Conclusion

The integration of financing and environmental considerations plays crucial role in enhancing sustainable and resilient ecosystem in a nation. However, financial institutions face several hurdles in effectively establishing green finance initiatives in India. The unique and complex challenges that hinder the sustained growth of green projects include lack of regulatory frameworks, policy inconsistencies, lack of awareness about green instruments, lack of internalizing externalities as well as diverse perceptions of investors affecting the fund or investment on such projects. India being a growing economy also has other priorities at the macroeconomic level ranging from poverty alleviation, increase in the economic development to infrastructure advancement reducing the nation's attention towards green finance initiatives. The performance and impact measurement of these initiatives definitely require consistent effort, development of standardized metrics as well as building a financial environment that is ready to embrace such projects. Even though India grapples with several challenges, developing a sustainable environment is crucial in ensuring the contribution towards a climate resilient and sustainable world. It is only through effectively understanding and analyzing the environmental outcomes of green finance initiatives, India be able to develop and position itself at the forefront of sustainable development. By identifying and exploring various challenges that hinder the sustained growth of green financing, policymakers, government and financial institutions will be able to take adequate measures to tackle them, ensuring successful implementation of various green projects and thereby working towards a resilient, sustainable future.

The study was conducted to know the challenges and impact of implementing green finance initiatives in India. Lack of international investors in India's green financial market, India's diverse landscape, regulatory gaps and policy inconsistencies, complex interaction of various social and economic aspects are some of the major challenges for implementation of green finance initiative. The study concludes that there is significant impact of different challenges on implementation of green finance initiatives in India.

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