

Theoretical and Practical Research in Economic Fields

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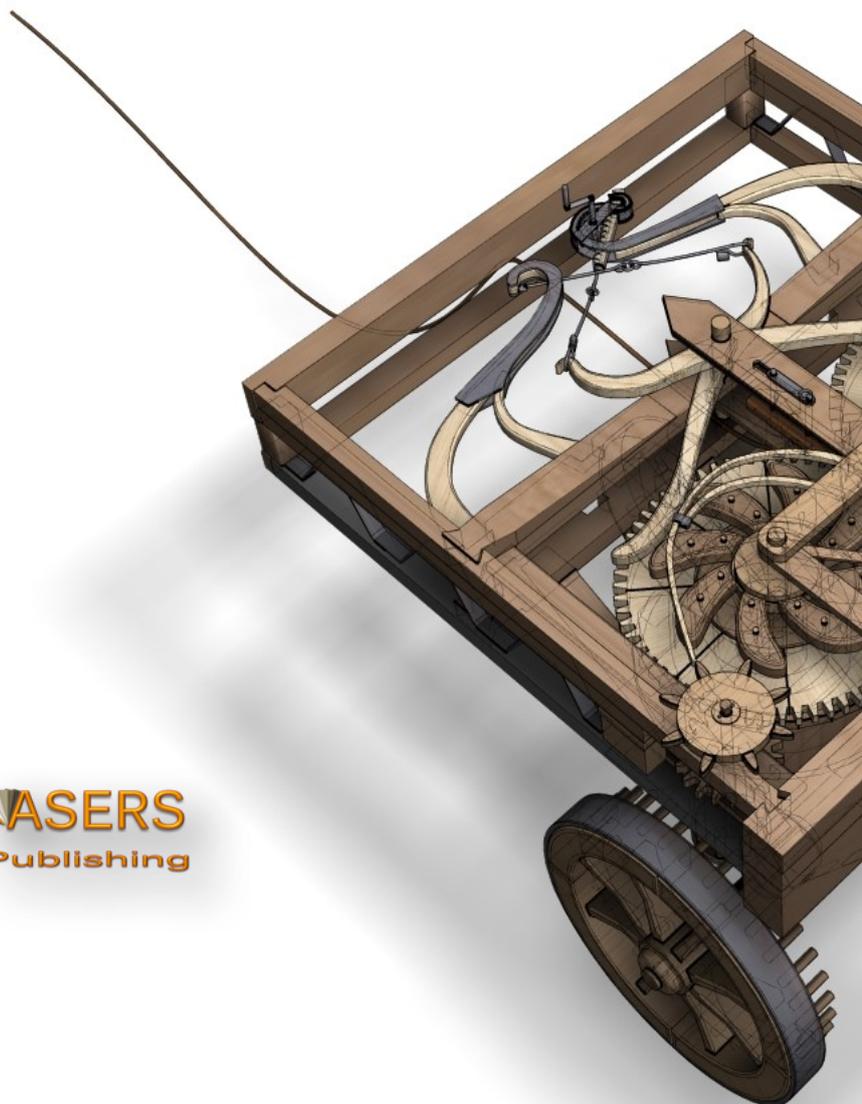
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Call for Papers

Volume XV, Issue 2(30), Summer 2024

Theoretical and Practical Research in Economic Fields

Many economists today are concerned by the proliferation of journals and the concomitant labyrinth of research to be conquered in order to reach the specific information they require. To combat this tendency, **Theoretical and Practical Research in Economic Fields** has been conceived and designed outside the realm of the traditional economics journal. It consists of concise communications that provide a means of rapid and efficient dissemination of new results, models, and methods in all fields of economic research.

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Green Finance Supports Sustainable Environment: Empirical Approach towards Applicability in Tourism Sector

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Abstract: Purpose. Sustainable development Goal (SDG)-2030 is an important agenda of UN. Green finance concept is a way to support sustainable development goal. This research explore concept of green finance toward green industry in India. The aim of this study how green finance help in increase of green industry in Indian region focusing on the tourism sector specifically.

Methodology. The study based on empirical research structure equation model constructed with help of SPSS and AMOS software. Data collected from respondent those are related to manufacturing company and availed green finance services from financial institute. Total 576 sample collected within Indian region.

Finding. The study finds that green finance awareness, incentive, initiative and technology will increase green industry. The study finds that factors of green finance industries are green marketing initiative, green finance incentive, awareness about green finance and technology innovations.

Originality. The study based of five factor these are green finance marketing initiative, green finance incentive to investor, green finance awareness, green technology innovation and green investment. All these factors support green industry in Indian region and other region as well.

Practical implications. The aim of the study to fids out factors which increased green industry through green finance supports. The study related to finance services for green investment for sustainable society.

Keywords: sustainable development goal; green finance; green industry; green investment; sustainable society.

JEL Classification: Q01; Q56; G41; R11.

Introduction

Although there has been a rise in climate change, little is known about how businesses can grow correlation between their different types of financial routine and related operations. While there have been negative correlations discovered between green innovations with help of green financial. Prior research has demonstrated a significant positive influence of sustainability activities on organizations' financial operations. Green technology related with sustainable product and reducing carbon emissions. In India more enterprises are inclined toward green innovation. Consumers prefer green product and inclined toward green energy. Examining the connection between CO₂ emissions and financial success can be made easier by integrating different viewpoints and

calculating environmental innovation scores (Khalil, M. A., & Nimmanunta, K. 2023). Green financing encourages investment in renewable energy sources, lowers environmental risks, and increases corporate transparency. But it can have a bad effect on industries that pollute. This study examines, considering renewable energy kinds, nations, and policy stability, how green finance affects innovation in renewable energy at the economic level. It uses entire green bonds, which extends the results of recent studies.

Central bank played huge role in green finance economic to mitigate pollution in the society. Policies toward green finance of central bank is right step toward sustainability. Number of financial instate have implemented different type of policies for green finance which not only provide sustainable environment but also encourage people to adopt sustainable product. On the other hand, opinions differ on whether central banks should assist in the expansion of green finance or to what degree existing operating frameworks should take climate change into account. The policy environment in which central banks operate is being altered by the coming climate crisis, and climate change has a substantial impact on both their primary functions and their larger role in mitigating and managing climate change-related risk (Dikau, S., & Volz, U. 2021). With an emphasis on green spaces, fintech innovation plays a critical role in lowering environmental emissions. The idea of a "green environment," which entails fewer pollutants and carbon footprints, has gained popularity. Fintech innovation, which includes digitalization, paperless transactions, and credit market innovation, boosts efficiency in financial processes. As a result, less paper is wasted and gasoline is used for transportation, improving the environment. Green investments can be encouraged, and sales of green credit can be increased by both public and private financial institutions. The expansion of environmentally friendly capital and financing may result in a rise in the green environment. The key objectives of the study are mentioned herewith:

- a. To examine relationship between Green Banking marketing initiative and Green finance investment.
- b. To analysis relationship Green finance incentive and Green finance investment.
- c. To analysis relationship Green finance awareness and Green finance investment.
- d. To examine relationship Green technology innovation and Green finance investment toward adoption of green finance industry

1. Literature Review

The agenda of united nation to reduce overall temp of earth by 2030. This can be possible through sustainable energy products. The Sorbonne Accord will not be achieved without \$1.55 trillion in annual green investment from the UNFCCC through 2040. For developing financial systems, long-term viability is a critical concern. Research on responsible finance prioritizes long-term fixes, like clean energy share benchmarks and green bonds. Nevertheless, obstacles to renewable expenditure implementation, including administrative costs and manageable deficits, impede the growth of green financing in nations like Nepal. This study uses an integrated approach that includes patent citation and subjective evaluation of sample papers to focus on green finance knowledge and its application from theory to practice (Mohsin, M., Dilanchiev, A., & Umair, M. 2023).

A developing idea, "green finance" takes governance, social, and environmental aspects into account while making investments. The green finance is important e to reduced carbon emissions in society which help to sustainability. The agenda of green finance to increased green investment and developed sustainable economic in society. Legislators can use the research's valuable context to inform their regulations of GEPI's green finance. The literature review, research design, empirical analysis, and summary comprise the four aspects of the study. Green finance optimizes economic structure, improves supply-side quality, and maintains sustainable economic growth. It encourages green innovation, drives consumers toward environmentally friendly consumption, and reduces market transaction costs. Green finance drives ecological civilization by stifling energy-intensive, high-pollution enterprises and bolstering environmentally conscious ones. Since it can do so steadily and permanently, it is crucial for fostering rural development and lowering poverty. The administration of the Yangtze River Delta aims to promote ecological civilization, green development, and environmental governance through green financing. It is crucial to look into the characteristics and factors that influence the growth of green finance in order to progress the field.

The G20 nations ought to support the expansion of the worldwide market for green investments, with a focus on developing or underdeveloped regions. Public institutions and regulations can aid in the development of new markets, such as those for green bonds and other sustainable infrastructure finance products. The G20 may potentially establish tax and regulatory frameworks to channel capital into non-liquid, long-term green investments made through yieldcos and other investment trusts. Additionally, the G20 should ensure that developing countries align their financial institutions with sustainability goals and provide technical assistance to them while they construct national roadmaps for sustainable finance. One way to do this is to use the Green

Invest platform to share experiences. Some of the important literatures reviewed in this direction can be stated as below.

Table 1. Important Literatures

Sl	Author and year of publications	Method	Outcome of study	Variable used in study
1.	(Ibrahim, R. L .et al., 2023)	Data collected from Various countries	Growing greenhouse gas emissions are posing a serious threat to the globe, with natural resources playing a major role. A study looks at how CO2 emissions are affected by gas, coal, and oil in ten of the most resource-dependent nations between 1995 and 2019. The study discovered that while natural resources increased CO2 emissions, the effects were mitigated by technology, structural change, renewable energy, and green finance. Reducing subsidies for fossil fuels and boosting investments in renewable energy are the study's recommendations.	Green House Gases, Technology, Green Finance
2.	Tariq, A., and Hassan, A. (2023)	GM methodology used for analysis of data	Using a panel dataset of 70 countries, the study looks at how environmental legislation, carbon finance, renewable energy, and green finance affect environmental sustainability. The findings indicate that while carbon finance has little effect on sustainability, green finance and renewable energy have a major influence. The renewal energy is an important factor to reducing carbon emission. The study recommended to boost renewal energy sources.	Green finance, indexed carbon
3.	Wang, R., <i>et al.</i> (2023).	Least Square method	This study included sustainable finance toward green energy and green innovation. The study focus on OECD countries for financial support toward sustainability. The study collected data within OECD region. Energy efficiency, however, only works in the short term, and human capital has a major negative impact. The report suggests enhancing the performance of the financial sector to promote trade that is environmentally benign, boost energy efficiency investment, and improve inclusion.	Green finance, Energy, financial inclusion
4.	Wang, K. H., <i>et al.</i> (2022).	Secondary data method	The study investigates the global causal relationship between sustainable development (SD) and green financing (GF). The results validate interaction theory by demonstrating that GF positively affects SD in several subperiods. On the other hand, there isn't any solid proof on which way GF influences SD. According to the report, governments and international organizations should direct risk avoidance and high-quality green investment. Additionally, countries can contribute to sustainable development by enhancing GF classification guidelines and information dissemination.	Sustainable finance, Green economy, Green financing, sustainable development
5.	Lee, J. W. (2020).	Primary Data	The study examines how green financing fits into China's aims for sustainable development, taking governance, social, and environmental issues into account. Trends, difficulties, suggested policies, and the functions of the public and private sectors are all identified. This research encourage for all sectors, including policy development, market transparency, and the encouragement of private-public partnerships for the diversification of green finance. The study included recommendations about green industry and green the banking system, green bond market, and	Green finance awareness and its implications

Sl	Author and year of publications	Method	Outcome of study	Variable used in study
			green institutional investors.	
6.	Liu, <i>et al.</i> (2021).	Primary data	This study looks at how Green Finance affected the development of high-quality economies in thirty Chinese regions between 2009 and 2019. It gauges the overall influence ratio of the green market and the degree of development of green finance using epsilon-based metrics and entropy techniques. Within a single research framework, the study integrates green financing toward green industry concept, renewal energy sources and green innovation. The findings indicate that green finance is decreasing gradient-wise, with upgrading industrial structures and technology innovation acting as intermediaries. In this relationship, environmental control has a non-linear role.	Green finance investment factors
7.	Zhang, B., and Wang, Y. (2021).	Primary Data	With an emphasis on the financial, environmental, and economic facets of green finance development, this study proposes an evaluation method. It divides the development into three subsystems using the PSR model and computes evaluation scores. The system examines the growth of green finance in China between 2004 and 2017, highlighting its potential to advance the development of sustainable energy.	Green industry establishment factors
8.	Huang, H., and Zhang, J. (2021).	Primary data	From 2011 to 2019, the study evaluates how green financing policies affect the environment in 30 administrative regions at the province level. The findings indicate that green finance pilot projects improve environmental quality and lower pollution. The relationship between industrial structure and innovation capability is somewhat mediated. Pollution in eastern and central regions is greatly reduced by green financing policy, but it is hardly reduced in western regions.	Green finance investment factors
9.	Cui, H., et al, (2020)	Primary Data	To examine the effects of green finance on sustainability and cleaner production, this research proposes an evolutionary game model encompassing governments, financial institutions, businesses, and consumers. According to the model, sustainability and cleaner production are positively impacted by the integrity of the green finance system. A sustainable green finance system must prioritize tightening government control, cutting production costs, and raising consumer remuneration.	Green finance innovation technology
10.	Dörry, S., and Schulz, C. (2018)	Secondary data	This essay investigates the connection between regional companies pursuing sustainable business practices and the banking sector. It investigates if financialized finance, which is hostile to alternative economic methods, may be used to manage green assets in a way that promotes sustainability. The interaction between the finance sector and entities that prioritize sustainability, like cooperatives and regional banks, is also examined in this article. The paper examines the private, public, and international financial centers involved in green financing using the local economies of Luxembourg as an example.	Green finance investment factors

Source: Secondary Data.

Green bank marketing initiatives (GBMI) is defined by various authors. According to Peattie and Charter (1999) green marketing is universal executives process which responsible for recognizing, predicting and substantial the requirements of all stakeholder in the society in a sustainable manner. A type of banking known as "green banking" (GB) takes social and environmental considerations into account to conserve the environment and natural resources. For industrial initiatives that produce the most carbon dioxide emissions, it is a major source of finance. However, obstacles include high operating costs, diversification problems, start-up, reputational risk, and credit hazards impede the banking industry in Bangladesh from developing GB. Lack of finance, target market identification, customer persuading, and lack of understanding have all been found to be major obstacles to GB product development in studies conducted in Pakistan and India. Lower client trust, resistance to using new technologies, and a lack of awareness, education, and expertise among banking personnel regarding green banking practices are among the issues facing developing countries like Bangladesh. Green banking initiative reduces these issues. (Zhang, X. *et al.* 2022).

H1. Green Banking Marketing Initiative (GBMI) increased green finance investment toward adoption of green finance.

Green banking incentives are related with green services which directly benefited to consumers and society. In 2016, the United Arab Emirates launched green policies aimed at the financial industry, requiring all financial institutions to implement a Green Banking (GB) framework. However, because of several obstacles and difficulties, the uptake of GB technology by consumers and commercial enterprises is still inadequate. According to a nationwide survey conducted by UAE-MoEW, only 4% of consumers have a green account, and less than 38% of consumers have implemented GB technology transactions. The adoption rate of most green services has been quite low. This emphasizes the necessity for additional study on the obstacles influencing consumers' intentions to embrace GB technology in the UAE, since ignoring this problem could have serious negative effects on sustainability and financial losses (Bouteraa *et al.* 2023).

H2. Green finance incentive (GFI) increased green finance investment toward adoption of green finance.

Green finance awareness is a way to availed the opportunity for investors and other stakeholders in the society. Embracing green ideals can lower expenses, minimize fraud, and improve operational efficiency in banking. For businesses and banks to have enduring connections, green investment is essential. But more dedication to green investments is needed to meet global environmental targets. Inadequate funding for green initiatives may impede this aim. Green financing could be enhanced by creating regulations that encourage green credit and renewable energy production subsidies. The economy and green finance both benefit greatly from the provision of green credits for environmentally friendly initiatives that reduce pollution. Lack of proper documentation is one of the obstacles preventing banks from funding green projects. Consumers now prioritize banks that are environmentally conscious and accountable. Including environmental concerns in marketing campaigns can increase customer loyalty and improve the public's perception of banks (Ibe-enwo, *et al.* 2019).

H3. Green finance awareness (GFA) increase increased green finance investment toward adoption of green finance.

Technology is an essential element for driver of any organisation. Green technology innovation is indicators of green finance investment. Lending money to environmentally friendly development initiatives and green growth in the economy is referred to as "green finance." It consists of green funds and banks that assist with clean development projects. Renewable energy projects are financed by green bonds and banks in industrialized nations. The finance sector must include the Sustainable Development Goals into its development and investment strategies in order to prevent environmental catastrophes. Green banking practices encompass a range of activities such as green marketing, investment, internet, mobile, paperless, branchless, green ATMs, green buildings powered by renewable energy, and green communication. By using these procedures, banks can improve their environmental performance and lessen pollution and environmental harm (Ellahi, A. *et al.* 2023).

H4. Green technology innovations on green finance services increased green finance investment toward adoption of green finance.

The adoption of technology-oriented services is significantly influenced by gender, with females favouring green and sustainable growth. The use of mobile banking is more common in women. Customer decisions are also influenced by societal standards, utility, and convenience of usage. Green development is becoming more and more competitive in developing nations like India. Sustainable development can be aided by raising public knowledge of green banking practices. Corporate Social Responsibility (CSR) is a marketing tactic that the automotive industry is using more and more to keep customers and increase market value. However, there are a number of reasons why it can be difficult to conceptualize CSR in particular contexts. The goal of "green

finance," also known as "green investments," is sustainability with the least amount of adverse effects on the surrounding area and environment. The automotive industry should uphold sustainability standards by offering reasonably priced funding for projects that aim to increase the sustainability of society while taking economic factors into account. Banks in Bangladesh should use eco-friendly practices to lower environmental dangers. Green banking regulations are being adopted by developing nations including Bangladesh, Pakistan, and India; nevertheless, implementation may be hampered by stakeholder pressure and financial gain. While foreign banks are already putting eco-friendly plans into practice, Pakistan's banking industry is at risk because of a lack of environmental knowledge and awareness.

H5. Green Banking marketing initiative (GBMI) increased growth of green industry.

Green economy agreements incorporate social and environmental factors into business operations with the goal of enhancing both individual and community well-being. The green growth strategy in Indonesia encourages investments in renewable energy, landscapes, and environmentally friendly infrastructure. To improve state civil servants' competency in green growth and government institutions, cooperation and sincere contributions are required. The globalization of green growth and sustainable development is necessitating a change in financial paradigms. To encourage ethical investing and corporate social responsibility, the financial system must be changed. To determine national characteristics and development priorities for financing green growth and sustainable growth, a variety of methods are employed, including observations, economic descriptions, structural and logical analysis, and systems analysis. To reconcile social, economic, and environmental performance, banks need to achieve sustainable growth. The use of mobile or branchless banking has increased significantly in the twenty-first century (Marhaeni, A. *et al.* 2023).

H6. Green finance incentive (GBI) increased growth of green industry.

Globally, green finance has difficulties, particularly in developing nations that depend on the production of oil and natural gas. Major concerns include disagreements over credit estimation, knowledge discrepancies, structural variables, external impacts evaluation, and principles. Green finance has various advantaged while providing awareness to all stakeholders. This awareness led to adoption a positive step toward adoption of green products in society. Low returns, high implementation costs, and a lack of talent are problems faced by developing countries. The epidemic has caused the focus of green development and sustainable growth to move from quantitative to qualitative factors, requiring a new finance and investment model as well as an overhaul of the economic environment. Through sustainable consumption and production, sustainable development seeks to deliver prosperity to the entire world. A UN resolution by 2030 established 17 main objectives for sustainable development. In order to lower environmental risks and maintain the health of ecosystems, the green economy idea advocates for significant policy changes on social, economic, and environmental issues. (Zheng, G. *et al.* 2021).

H7. Green finance awareness (GFA) increases growth of green industry.

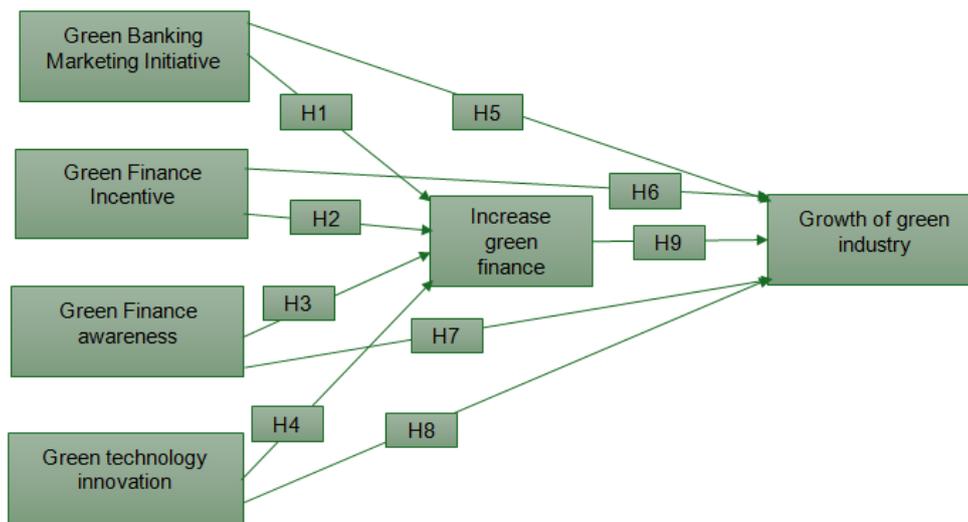
The circular economy (CE) is a business strategy that seeks to reduce waste, maximize resource consumption, and create a profitable company in a cutthroat industry. However, financial constraints and a lack of available technology can be obstacles to implementing CE standards. Adopting Green Finance (GF) and Green Infrastructure (GI), two crucial ideas that are becoming increasingly important as the world's population struggles with climate change and environmental degradation, is necessary to successfully implement circular practices. When we talk about green finance, we're talking about giving money to projects and activities that promote environmental sustainability, such energy-efficient buildings, sustainable transportation, and renewable energy. It aids in raising money to finance environmental sustainability-related projects and the shift to a low-carbon economy (Agrawal, R., *et al* 2023).

H8. Green technology innovation increases the growth of green industry.

The green concept in the financial system is becoming more and more trendy among investors, legislators, and academics. This includes different type of products in term of bonds, investment related with social welfare, and financing for industry related with green concept. Three main categories may be found in the literature on sustainable finance *i.e.*, make fundstoward sustainable, the drawbacks of these kinds of funds, and a comparison between sustainable and conventional investments. Green bonds are a useful hedging tool, particularly in times of crisis like the current pandemic. However, Bangladesh's operational shortcomings and high transaction costs are impeding the expansion of green financing. Local, national, and international funding for climate change adaptation and mitigation is referred to as "climate finance." (Sharma, G. D. *et al.* 2022).

H9. Green finance investment increase growth of green industry.

Figure 1. Structure Model for Research



Source: Researcher’s Assumption based model

2. Methodology

The study conducted in India from stakeholders who have taken green services from bank or financial institutions. The respondents were related to manufacturing company within Indian region. The criteria set for the respondents are based on green services taken by investors. The respondents were related with green financial investment and green finance products. Data was collected through online survey with help of well-structured questionnaire. The questionnaire was set in easy and understandable language. Random sampling techniques used for collection of data. Total 576 samples collected from various respondents. Likert 5-point scale used for data collection and analysis of result. A well-structured questionnaire was prepared for collection of data. Initially, the pilot study conducted for validation of the questionnaire. Questions are related with green banking initiative, green finance incentive, green finance awareness and consumers’ feedback. The questionnaire was floated in month of Dec 2023 and data was collected till Jan 2024. Initially questionnaire floated to 825 respondents and finally 576 feedback received from consumers.

3. Research Results

Table 2. Demographic Profiling

Category	Variable	Number	Percentage
Gender	Male	375	65.10
	Female	201	34.90
Age	18-30	52	9.02
	31-40	126	21.88
	41-50	187	34.46
	51 and above	211	36.64
Education	Undergraduate	125	27.70
	Graduate	53	9.20
	Postgraduate	102	17.70
	Other	84	14.58
Geographical Location	Urban	260	45.13
	Semi-Urban	231	40.10
	Rural	85	14.77
Profession	Employed	101	17.55
	Self-business	54	9.38
	Other	124	21.52

Source: Primary Data.

In the following table no. 3 the results for the KMO Bartle test is shown. This test was conducted to determine that data is sustainable for factor analysis. The result of KMO Bartle is 0.850. The appropriate value must be between 0.8 to 1. Result for the factors analysis must be more than 0.8.

Table 3. KMO Bartle Test

KMO value		.850
Bartlett's Test of Sphericity	Approx. Chi-Square	20613.194
	Df	325
	Sig.	.000

Source: Primary Data.

Table 4 showing communalities result. This is showing that each variable is explained by facets. High values indicate well-represented variables. Principal factor axis factoring establishes the initial values of the correlation matrix based on the squared multiple correlation of variables, reflecting the percentage of variance explained by maintained factors. The value of extraction is more than .631 which is correlated with the variance. The value is more than 500 which more that acceptable value for model fitness.

Table 4. Communalities Test

Factors	Initial	Extraction
GFMI	1.000	.785
	1.000	.794
	1.000	.802
	1.000	.818
	1.000	.882
	1.000	.900
	1.000	.833
	1.000	.815
GFI	1.000	.834
	1.000	.816
	1.000	.838
	1.000	.859
	1.000	.796
GFA	1.000	.631
	1.000	.669
	1.000	.747
	1.000	.616
	1.000	.757
	1.000	.678
GTI	1.000	.860
	1.000	.638
	1.000	.804
	1.000	.648
IGFI	1.000	.878
	1.000	.875
	1.000	.878

Source: Primary Data.

Table 5 showing variance explained. Columns for eigenvalues, variance percentages, and cumulative percentages are present in the table. The greatest amount of variance is explained by the first factor, which is followed by the next and so forth. Additionally displayed is the percentage of variance explained by each component. The percentage of variance that has been accounted for by all of the factors that came before is known as the cumulative percentage. Based on the common variance, the number of factors kept is represented by the extraction sums of squared loadings. The variance distribution following varimax rotation is represented by the rotation sums of squared loadings.

Table 5. Loading Factor Result of the Research

Component	Initial Eigenvalues value			Sums of Squared Loadings			Rotation Loadings		
1	10.564	40.631	40.631	10.564	40.631	40.631	6.776	26.062	26.062
2	3.668	14.109	54.741	3.668	14.109	54.741	5.669	21.803	47.864
3	2.893	11.128	65.868	2.893	11.128	65.868	3.677	14.143	62.008
4	2.346	9.023	74.891	2.346	9.023	74.891	2.957	11.373	73.381
5	.978	3.763	78.654	.978	3.763	78.654	1.371	5.273	78.654

Source: Primary Data.

The rotated factor matrix, which shows the correlation and weighting of the variables and factors, is included in the table. To improve readability, low correlations are eliminated using the blank (.30) option. The factor pattern and structural matrices are the same for orthogonal rotations. These elements were selected because they are important and pertinent to the study. Table 6 showing rotated component matrix of the research. The study divided into five factors. The result is showing result of rotated matrix is more than .500. SPSS 26.0 used for the study. The suppression value is .400.

Table 6. Exploratory Factor Analysis

	GBMI	GFI	GFA	GTI	IGFI
GBMI	.822				
	.834				
	.874				
	.804				
	.907				
	.882				
	.891				
	.833				
GFI		.854			
		.838			
		.872			
		.887			
		.846			
GFA			.731		
			.799		
			.861		
			.773		
			.716		.487
			.765		
GTI				.926	
				.796	
				.896	
				.804	
IGFI		.658			.534
		.680			.523
		.668			.530

Source: Primary Data.

Table 7 showing result of default model and saturated model. The CMIN/ DF value shall be less than 3. The value of NPAR is 8, DF is 325 and P value is .000. In the study CMIN / DF value is 2.90. This indicates that model is fit. NPAR stand for number of parameter of each model. CMIN is chi square value.

Table 7.CMIN Result

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	2.0915	325	.000	2.90
Saturated model	26	.000	0		

Source: Primary Data.

Hypothesis result

Since greenhouse gas emissions harm the environment and interfere with societal welfare, they represent a serious threat to sustainable development. GHG emissions are a result of human activity such as mining, industry, transportation, and energy production. Energy efficiency, green financing, and technology developments can all contribute to lowering greenhouse gas emissions and ensuring sustainable development. Green finance improves cash flows from financial institutions, which incentivizes environmentally friendly initiatives. Better technologies are introduced by technological breakthroughs for social and economic reasons, and energy efficiency lowers waste and use of energy. Achieving sustainable development goals, avoiding harmful energy usage, and improving energy efficiency all depend heavily on the production and consumption of renewable energy.

Table 8 indicated effect of one factor on the other factor. Total 9 hypothesis were selected for the study. According to model hypothesis are related to green banking marketing initiative, Green banking incentive for investor, green banking services awareness and green technology innovation which increase green banking financial investment and green industry. As shown in table all hypothesis supported. The research indicated that green industry would be more when focus initiative, incentive, awareness and technology toward green finance.

Table 8. Hypothesis Result

Effect	B	T	P value	Support
GBMI-IGFI	.62	24.46	0.000	Yes
GFI-IGFI	.43	18.26	0.000	Yes
GFA-IGFI	.59	14.56	0.004	Yes
GTI-IGFI	.52	12.51	0.000	Yes
GBMI- GGI	.45	24.46	0.000	Yes
GFI-GGI	.56	19.26	0.004	Yes
GFA-GGI	.58	18.56	0.000	Yes
GTI-GGI	.53	13.51	0.000	Yes
IGFI-GGI	.59	12.41	0.000	Yes
NFI= .97. CFI= .95				

P value equal to less than .005

Source: Primary Data.

4. Discussion on the Findings

Sustainable development goal is a foremost agenda of UN which have to achieved by 2030. Green finance is a step to achieve SDG which assistance to investors and consumers toward sustainable business. The study find out factors of green finance which increase green industry and achieved sustainable business. Five factors selected for green industry which support by green finance. Green marketing initiative, incentive in green finance, awareness about green finance, technology innovation and investment in green finance are factors of the study. Green finance faces challenges on a global scale, especially for emerging nations that rely on the production of natural gas and oil. Disparities in knowledge, credit estimation, factors that inhibit structural growth, disagreements over green finance ideas, and difficulties evaluating external effects are among the issues that need to be addressed. Green financing has benefits, but it also has problems, such low returns, difficult processes, and little experience. Green projects are costly and inexperienced in the beginning. The ecological growth of green finance in various region of the world is hindered by various reasons, including insufficient skill, insufficient profit, intricate methods, and expensive performance costs. Many studies have examined the trends, challenges, and opportunities for green product which led to sustainable growth in economic system.

Total nine hypothesis were selected for model of the study. Data collected from different stakeholder of manufacturing company in India. The stake holder either deal with green finance service or invested in green finance. The study finds that green finance investment depends upon marketing initiation where consumer choose green finance product. The demand of green finance product would lead investment in green finance by investor. The study find that green investment would depend on incentives in green investment like clearance, tax incentive, easy supply process, reducing compliance process. The investor would include to choose green finance investment when they will get such type of incentives.

The study funds that there is need to awareness green finance for investors and consumers as well. The information about incentive, cost of product, durability and so many would lead to investment in green finance and also consumer will choose the product. The incentive about sustainable business will increased durable

industry. The technology innovation is an important factor in green finance investment and green industry. The study finds that technology innovation in green finance will be more lucrative for investor and consumer as well. This will also reduce time and cost of product. The technology innovation related to sustainable process of product and sustainable supply of product in supply chain management'. The green finance investment increase green industry which overall support to sustainable development goal. The green finance services not only benefit of investor but also convenience for consumer in terms of process of product wastage in society. A relatively new area of finance called "green finance" is dedicated to funding environmentally friendly investments. It is distinct from conventional banking methods in that it takes plans' sustainability and environmental risk management tactics into account. According to the UNEP, a sustainable financial system encourages the use of pollution-reducing technologies. Green finance, according to the People's Bank of China, is a strategy that brings private capital to environmentally and energy-conscious industries. According to the European Banking Federation, there are prospects for green insurance policies and bonds because green financing is not just about environmental or climate change-related issues.

5. Limitations of the Study

The study conducted in Indian region. However it can be applied in other region also. The study conduct on green industry factors which support sustainable development goal. The factors are awareness, initiative, incentive, and technology. The further study may be conducted on other factor also like consumer preference on green product, cost effectiveness, durability of product etc. The study used SPSS and AMOS for calculation of data. The other model and software can be incorporated in future study.

Conclusion

Despite the implementation of green banking policies and regulations, inadequate project management by banks and other financial institutions has impeded the advancement of green initiatives. A young market and high transaction costs are two risks connected to green products. Furthermore, green equity funding is restricted by the lack of a suitable business environment and legislative framework. Green finance helps investors and the ecosystem even if it has complicated processes, low yields, and little experience. It is difficult to implement green finance, particularly in developing nations, due to a lack of agreement on the underlying principles, issues evaluating external effects, growth-stifling structural variables, gaps in competence, and difficulties calculating credit. Institutional barriers prevent green initiatives from receiving financing. Green industries supports renewable energy sources and conserve traditional energy sources. The study finds out how green finance support to increase green industry. The study selected five factors which increased green industry in the country *i.e.*, green finance initiative, green finance incentives, awareness about green finance service to investor and consumer, technology innovation toward green finance and investment toward green finance. The study finds that marketing initiative, incentive, awareness, and technology innovation support investment in green finance. Finally investment in green finance increased green industry in the country. The Study is based on empirical data which collected from manufacturing country in Indian region. The respondent either availed green service from bank or willing to availed green finance services for green industry. The study conducted within Indian region but applicable other region also.

As sustainability is the only formula of success for the unforeseen future today, assessing the importance and work towards the holistic implementation of green industries in modern-day businesses is the call of the hour. In this direction, our effort here can be proved as a key-impetus towards the understanding the prospects and challenges of the green finance initiatives so that different stakeholders can be collaborated together towards enhancing the green investment sector in India.

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Credit Authorship Contribution Statement

Rojalin Mohanty: The author has contributed to field work, investigation, formal analysis, and writing of this article.

Ansuman Samal: The Co-author has contributed to conceptualization, development of instrument, methodology, project administration, data cleaning and analysis, as well as editing of the article.

Rakesh Kumar: The Co-author has contributed in field work, conducting online research, as well as data analysis.

Declaration of Competing Interest

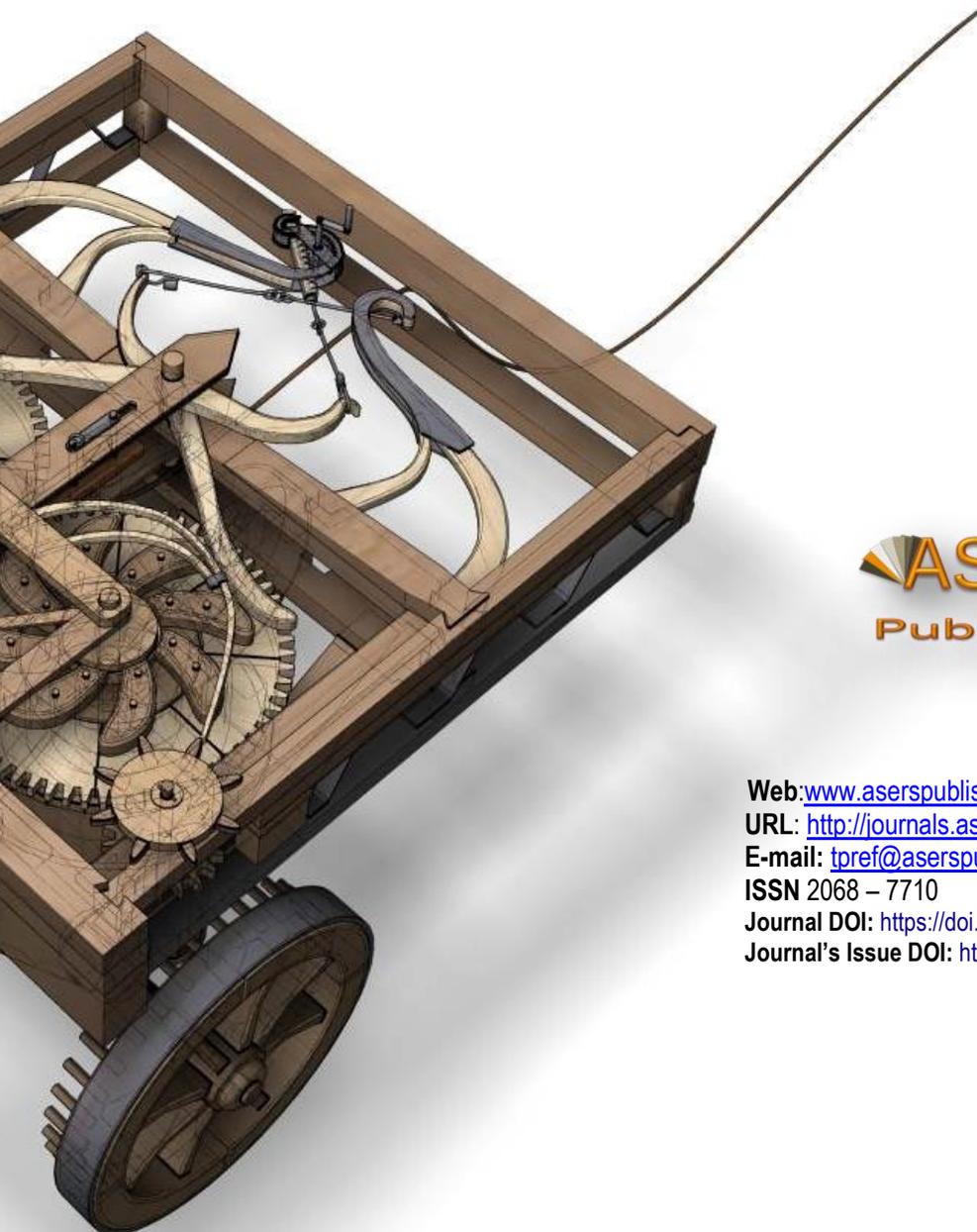
The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper and thus, the authors have no conflicts of interests to declare.

References

- [1] Agrawal, R. *et al.* 2023. Adoption of green finance and green innovation for achieving circularity: an exploratory review and future directions. *Geoscience Frontiers*. DOI: [10.1016/j.gsf.2023.101669](https://doi.org/10.1016/j.gsf.2023.101669)
- [2] Bouteraa, M., Raja Hisham, R. R. I., and Zainol, Z. 2023. Challenges affecting bank consumers' intention to adopt green banking technology in the UAE: A UTAUT-based mixed-methods approach. *Journal of Islamic Marketing*, 14(10): 2466-2501. DOI: [10.1108/JIMA-02-2022-0039](https://doi.org/10.1108/JIMA-02-2022-0039)
- [3] Cui, H., Wang, R., and Wang, H. 2020. An evolutionary analysis of green finance sustainability based on multi-agent game. *Journal of Cleaner Production*, 269. DOI: [10.1016/j.jclepro.2020.121799](https://doi.org/10.1016/j.jclepro.2020.121799)
- [4] Dikau, S., and Volz, U. 2021. Central bank mandates, sustainability objectives and the promotion of green finance. *Ecological Economics*, 184. DOI: <https://doi.org/10.1016/j.ecolecon.2021.107022>
- [5] Dörry, S., and Schulz, C. 2018. Green financing, interrupted. Potential directions for sustainable finance in Luxembourg. *Local Environment*, 23(7): 717-733. DOI: <https://doi.org/10.1080/13549839.2018.1428792>
- [6] Ellahi, A., Jillani, H., and Zahid, H. 2023. Customer awareness on Green banking practices. *Journal of Sustainable Finance & Investment*, 13(3): 1377-1393. DOI: [10.1080/20430795.2021.1977576](https://doi.org/10.1080/20430795.2021.1977576)
- [7] Huang, H and Zhang, H. 2021. Research on the Environmental Effect of Green Finance Policy Based on the Analysis of Pilot Zones for Green Finance Reform and Innovations, *Sustainability*, 13(7). DOI:[10.3390/su13073754](https://doi.org/10.3390/su13073754)
- [8] Ibe-enwo, G. Igbudu, N. Garanti, Z. & Popoola, T. 2019. Assessing the Relevance of Green Banking Practice on Bank Loyalty: The Mediating Effect of Green Image and Bank Trust, *Sustainability* 2019, 11(17), 4651. DOI: <https://doi.org/10.3390/su11174651>
- [9] Ibrahim, R.L. *et al.* 2023. Probing environmental sustainability pathways in G7 economies: the role of energy transition, technological innovation, and demographic mobility, *Environmental science and pollution research international*, May 24, 1-26. DOI: [10.1007/s11356-023-27472-6](https://doi.org/10.1007/s11356-023-27472-6)
- [10] Khalil, M. A. and Nimmanunta, K. 2023. Conventional versus green investments: Advancing innovation for better financial and environmental prospects. *Journal of Sustainable Finance & Investment*, 13(3): 1153-1180. DOI: [10.1080/20430795.2021.1952822](https://doi.org/10.1080/20430795.2021.1952822)
- [11] Lee, J.W. 2020. Green Finance and Sustainable Development Goals: The Case of China. *Journal of Asian Finance Economics and Business*, 7(7): 577-586. DOI:[10.13106/jafeb.2020.vol7.no7.577](https://doi.org/10.13106/jafeb.2020.vol7.no7.577)
- [12] Liu, Y., Lei, J., and Zhang, Y. 2021. A study on the sustainable relationship among the green finance, environment regulation and green-total-factor productivity in China. *Sustainability*, 13(21): 11926. DOI:<https://doi.org/10.3390/su132111926>
- [13] Marhaeni, A. A. I. N., *et al.* 2023. Adoption of the Green Economy through Branchless Rural Credit Banks during the COVID-19 Pandemic in Indonesia. *Sustainability*, 15(3), 2723. DOI:<https://doi.org/10.3390/su15032723>
- [14] Mohsin, M., Dilanchiev, A., and Umair, M. 2023. The impact of green climate fund portfolio structure on green finance: empirical evidence from EU countries. *Ekonomika*, 102(2): 130-144. DOI:<https://doi.org/10.15388/Ekon.2023.102.2.7>
- [15] Peattie, K. and Charter, M. 1999. "Green marketing", in, Baker, M. (Ed.), *The Marketing Book*, 4th ed., Butterworth Heinemann, Oxford, pp 593-620.
- [16] Sharma, G. D., Verma, M., Shahbaz, M., Gupta, M., & Chopra, R. 2022. Transitioning green finance from theory to practice for renewable energy development. *Renewable Energy*, 195(C): 554-565. DOI:[10.1016/j.renene.2022.06.041](https://doi.org/10.1016/j.renene.2022.06.041)

- [17] Tariq, A. and Hassan, A. 2023. Role of green finance, environmental regulations, and economic development in the transition towards a sustainable environment, *Journal of Cleaner Production*, 413(1): 137425 – 137430. DOI: <https://doi.org/10.1016/j.jclepro.2023.137425>
- [18] Wang, K. H., Zhao, Y. X., Jiang, C. F., and Li, Z. Z. 2022. Does green finance inspire sustainable development? Evidence from a global perspective. *Economic Analysis and Policy*, 75 (2022): 412-426 DOI:<https://doi.org/10.1016/j.eap.2022.06.002>
- [19] Wang, R., Destek, M. A., Weimei, C., Albahooth, B., and Khan, Z. 2023. Drivers of sustainable green finance: country's level risk and trade perspective for OECD countries. *The Journal of Environment & Development*, 33(1). DOI:[10.1177/10704965231217046](https://doi.org/10.1177/10704965231217046)
- [20] Zhang, B. and Wang, Y. 2021. The Effect of Green Finance on Energy Sustainable Development: A Case Study in China. *Emerging Markets Finance and Trade*, 57: 3435–3454. DOI:<https://doi.org/10.1080/1540496X.2019.1695595>
- [21] Zhang, X., *et al.* 2022. Do green banking activities improve the banks' environmental performance? The mediating effect of green financing. *Sustainability*, 14(2), 989. DOI: <https://doi.org/10.3390/su14020989>
- [22] Zheng, G.W., Siddik, A. B., Masukujaman, M. and Fatema, N. 2021. Green Finance Development in Bangladesh: The Role of Private Commercial Banks (PCBs). *Sustainability*, 13(2): 795-811. DOI:[10.3390/su13020795](https://doi.org/10.3390/su13020795)

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