

MAJOR RESEARCH PROJECT

A Study on Investor Perception of Green Finance in India

Submitted By

Yukti Baweja

2K22/DMBA/149

Under the Guidance of

Dr. Shikha N Khera

Assistant Professor



DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042

Certificate

This is to certify that **Ms. Yukti Baweja, 2K22/DMBA/149** has completed the project titled “**A Study on Investor Perception of Green Finance in India**” under the guidance of **Dr. Shikha N Khera** as a part of Master of Business Administration (MBA) curriculum of Delhi School of Management, Delhi Technological University, New Delhi.

Signature of Mentor
Dr. Shikha N Khera

Signature of Head of Department
Dr. Saurabh Agrawal

Declaration

I, **Yukti Baweja** student of Delhi School of Management, Delhi Technological University hereby declare that the Major Research Project on “**A Study on Investors Perception of Green Finance in India**” as a part of Master of Business Administration (MBA) curriculum Delhi School of Management, New Delhi, is an original piece of work. I also confirm that this project has not been submitted to any other institution or university for any other degree or diploma. I further declare that the information collected from various sources has been duly acknowledged in this project.

Yukti Baweja

2K22/DMBA/149

Acknowledgement

I would like to express my gratitude and appreciation to all those who gave me the possibility to complete this report. Special thanks are due to my mentor Dr. Shikha N Khera whose help, stimulating suggestions and encouragement helped me in all time of fabrication process and in writing this report. I also sincerely thanks for the time spent proofreading and correcting my many mistakes.

I would also like to acknowledge with much appreciation the crucial role of the Head of Department (HOD) of Delhi School of Management, Delhi Technological University for emphasizing on the major research project.

Many thanks go to the all the lecturer and supervisors who have given their full effort in guiding the team in achieving the goal as well as their encouragement to maintain our progress in track. My profound thanks go to all classmates, especially to my friends for spending their time in helping and giving support whenever I need it in fabricating my project.

Executive Summary

This research paper provides an overview of the study on investor perception of green finance in India, which is becoming a priority for public policy. The study employed primary data analysis to understand the current state of investor awareness and perception of green finance in India. The research methodology involved a systematic review of the literature, emphasizing green bond market growth, the green deposit market, demand of sustainable mutual funds, green loans and the role of government in promoting green finance in the country.

The key findings of the study highlight that while the majority of people are somewhat familiar with the term "green finance," they lack a clear understanding of its meaning, its potential impact and green finance instruments available in the market. Furthermore, the research suggests that green finance can play a crucial role in achieving sustainable development goals in India

The implications of the study for the future of green finance and sustainable investment in India are significant. The research highlights the need for financial agencies, government and corporates to build a strategy through green finance to achieve sustainable development goals in India. It also emphasizes the importance of raising awareness and knowledge of green finance among the general public. The study provides a valuable contribution to the literature on green finance and sustainable investment in India, offering insights that can inform policy decisions and investment strategies to effectively achieve its obligation towards Paris Agreement of Net Zero Carbon Emission by 2070.

TABLES OF CONTENT

S.No.	Title	Page No.
1.	Certificate	1
2.	Declaration	2
3.	Acknowledgement	3
4.	Executive Summary	4
5.	Chapters	
	1. Introduction	6-14
	1.1 Background	6-12
	1.2 Objective of the study	13
	1.4 Scope of the Study	14
	2. Literature Review	15-17
	3. Research Methodology	18-19
	4. Data Analysis	20- 30
	4.1 Demographics Analysis	20-21
	4.2 Hypothesis Testing	22-27
	4.3 Findings and Recommendations	27-29
	4.4 Limitation of study	30
	5. Conclusion	31
6.	References	32-33
7.	Annexure	34-41

Chapter 1- Introduction

1.1 Background

Technology has advanced quickly, boosting industrial activity, which has had a negative effect on the environment. Overuse of the environment has resulted in problems like ozone layer depletion, pollution, climate change, and global warming. Going green is a concept that was inspired by the need to protect the environment in light of these issues. Governments and businesses have implemented laws and procedures designed to protect the environment and advance sustainability.

Globally, sustainable development that is in line with economic expansion is growing increasingly difficult. The growing environmental consciousness has made it imperative for the banking sector to take responsibility for its handling of environmental challenges. According to the IPCC (2018), an energy system investment of USD 1.6–3.8 trillion will be needed to maintain global warming at 1.5 degrees Celsius. The European Union will need to invest an additional €180 billion annually in energy efficiency and renewable energy in order to meet its 2030 climate commitments. Moreover, Asia needs to invest US\$1.7 trillion annually on sustainable infrastructure. Thus, in the upcoming years, the financial sector's participation in sustainable development will become increasingly important. Green finance is a notion that will support sustainable and balanced growth. In general, green finance refers to any financial instruments, including green bonds and other financial instruments, as well as financial entities, like green banks and green funds, that invest in environmentally friendly initiatives and products. Over time, green finance, also known as climate-smart financing, contributes to a reduction in carbon emissions and an increase in ecologically positive outcomes. The growth of green finance is being driven by innovations based on the market. By 2040, India would also need to invest over \$4.5 trillion in infrastructure, which will be used to support the country's renewable energy goals, electric cars, and green homes.

Moreover, India announced its ambition to become a **net-zero emitter by 2070 under Paris Agreement**—an important milestone in the fight against climate change. India aims at reducing carbon intensity below 45 percent by 2030; and finally pave the way for achieving a Net-Zero emission target by 2070. This will facilitate infrastructure for Bio-manufacturing of low-carbon bio-based products. Sustainable biofuels play a key role in reducing Green House Gas (GHG) emissions from the atmosphere.

Although it is still in its early stages, India's green finance market is expanding quickly. The nation has established green funds and issued green bonds as part of its various initiatives to support green finance. To promote investments in sustainable projects such as renewable energy, the government has also implemented rules and incentives. Still, there are issues that need to be resolved, like investors' ignorance of and lack of comprehension of green finance as well as the dearth of viable investment opportunities. Consequently, the purpose of this study is to investigate investor attitudes of green finance in India.

The idea of "green finance" has become increasingly important in recent years as efforts around the world to solve environmental issues and advance sustainable development have gone worldwide. Given the nation's rapid economic growth and environmental concerns, it is critical to comprehend investor attitudes on green finance in the Indian setting. The objective of this study is to examine and evaluate how Indian investors perceive green finance, with a particular emphasis on important financial products including green bonds, green deposits, sustainable funds, and green loans.

The introduction of green finance instruments that influence both environmentally friendly and had practical value for investors as one of the initial actions taken towards tackling this issue of sustainability. These instruments are commonly referred to as "Green Finance Instruments " which are accessible through Indian Banking system and stock markets. These initiatives ultimately encourage the organizations to undergo sustainability measures and reduce the carbon footprints from the environment.

1.1.1 Meaning of green finance

Green finance refers to financial instruments and investments that support sustainable and environmentally friendly projects, with the aim of reducing carbon emissions and promoting sustainable development. An economic framework designed specifically for use in financially viable initiatives that address aspects of climate change is known as "green finance."

Financial services and solutions that assist ecologically friendly and sustainable projects are referred to as "green finance." Mobilizing resources for investments that support economic growth and have favorable environmental effects is the aim of green finance. This includes providing funds for energy-efficient technology, waste management, sustainable agriculture, renewable energy projects, and climate adaptation initiatives.

It is obvious that supporting sustainable efforts is greatly aided by green financing. Therefore, the provision of green financing by a nation's leadership is crucial for the shift from a booming economy to a green economy. Nations all over the world have made investments in green projects to advance, develop, and use eco-friendly technology to protect the environment and optimize environmental performance in order to ensure green economic growth. Regulatory agencies are likely to look for additional financially acceptable resources that are environmentally acceptable since new stakeholders and institutions have a better awareness of environmental challenges. When new avenues for funding resources and green financing emerge, this kind of environmental proactivity will be necessary to build environmental legitimacy.

The benefits of using green funding are evident in many ways. Initially, green financing offers financial assistance to businesses that are involved in green innovation. This assistance covers the cost of green equipment purchases, the implementation of new environmentally friendly technologies, and staff training. Second, green money from different initiatives can reduce the risk associated with green legislation and help stakeholders (governments, organisations, and regulators) spend R&D expenditures on environmental concerns. Last but not least, implementing green policies is more expensive than using traditional procedures. Green finance can help a company pay for these expenditures without facing major financial challenges. Thus, green finance-driven economic growth can reduce environmental pollution, promote green policies, and create sustainable urban areas.

1.1.2 Characteristics of green finance

As a vital answer to environmental issues, green money has surfaced. It includes a wide range of financial actions designed to assist enterprises, initiatives, and projects that are ecologically sustainable. Below is a summary of its salient features:

1. **Emphasise the advantages for the environment:**

Green finance is unique in that it prioritises results that are good for the environment. Financial goods and investments place equal emphasis on environmental sustainability and financial returns.

- Pollution reduction - Reducing pollution is the primary advantage of using sustainable products and services which can be financed through green finance instruments. As a result, there is less pollution because there is a reduction in the amount of toxic waste and non-biodegradable materials on the planet.
- Personal health – Green finance encourages using of environmentally friendly products and service, you can avoid consuming many dangerous chemicals and other substances. These products make the lives of the consumers more wholesome and environmentally friendly.

2. **SDG (Sustainable Development Goals) alignment:**

The UN's Sustainable Development Goals (SDGs) are supported by green finance, which encourages solutions for mitigating and adapting to climate change, responsible resource management, and the transition to clean energy.

3. **Risk Control and Disclosure:**

Green finance recognises that certain investments may pose environmental hazards. To enable responsible decision-making, it places a strong emphasis on comprehensive risk management frameworks and open disclosure of environmental impact.

4. **Collaboration Among Stakeholders:**

Green finance depends on cooperation across a range of stakeholders:

- **Public Sector:** Policies and incentives for green investment are set by governments.
- **Private Sector:** Companies, banks, and investment groups creating and utilising green financial services and products.
- **Civil Society Organisations (CSOs):** Promoting sustainability in the environment and ensuring that stakeholders take responsibility.
- **Government:** The government of India can also promote the investment into green finance instruments by giving tax exemptions and other financial incentives.
- **RBI:** Reserve Bank of India can come up with the innovative green financé instruments to

encourage the investors to invest in the green finance instruments with better returns and low riskiness.

- SEBI: To come up with the better regulatory compliance to encourage the green finance instruments among the investors.

5. Long term perspective:

Given the long-term advantages of environmental sustainability, green finance frequently entails longer investment horizons than standard finance.

6. Evolving Scenarios:

The sector of green finance is one that is always growing and innovating. To meet new environmental challenges, norms, laws, and financial instruments are always being developed. New innovative green mutual funds, green deposits are coming in Indian market to provide varied options to the investors and more flexibility while investing.

7. Niche Stage:

Green finance is at its initial stage in country like India where people are not very much familiar with green finance instruments that are already available in stock market as well as India commercial banks. By collaborative efforts of all the stakeholders there is the high chances that this market will be develop in near future by providing more investment options in this area.

Green finance is a viable strategy for addressing environmental issues as it directs financial resources towards sustainability. Overcoming current obstacles and encouraging cooperation will be essential as the profession develops to ensure a more sustainable future.

1.1.2 Green finance instruments

In general, environmental legislation in India and voluntary guidelines issued by different government agencies mainly pertain to sustainable financing tools.

There are no particular regulations pertaining to sustainable financing through equity instruments in India. Nonetheless, sustainable financing through equity is also covered under the overall framework for equity investments. Without previous government clearance, foreign investors or individuals residing outside of India are also allowed to participate in up to 100% of the equity of Indian enterprises involved in the renewable energy sector.

Following are the green instruments that we try to capture in this research work:

1. Green Bonds

A relatively new source of funding for environmentally friendly initiatives, green bonds have the potential to be a vital source of capital for a sustainable future. Similar to other financial instruments, green bonds are sold with the proceeds going only towards renewable energy initiatives. The money raised from the sale of green bonds is either invested in generally ecologically friendly assets or business models, or it is used to finance initiatives with a demonstrable positive environmental impact. There is a lot of room for diversification in the green bond market beyond renewable energy, especially in India.

2. Green Deposits

The RBI has announced a new framework to offer green deposits to the customers, aiming at developing a Green Finance Ecosystem (GFS) in India. The framework is applicable to Scheduled Commercial Banks. A green deposit refers to an interest-bearing deposit received by an RE (Regulated Entity) for a fixed period, with the proceeds earmarked for allocation towards green activities and projects that encourage energy efficiency in resource utilization, reduce carbon emissions and greenhouse gases, promote climate resilience and/or adaptation, and improve natural ecosystems and biodiversity.

3. Green Loans

Bank or other financial institution loans given especially for initiatives that have a definite positive impact on the environment. Frequently have lenient loan terms or favourable interest rates to encourage green enterprises. For instance, banks may provide green loans for the purchase of electric cars or energy-efficient construction projects.

4. Sustainable Mutual Funds

These funds make investments in businesses that place a high value on financial performance coupled with environmental, social, and governance (ESG) considerations. May offer diversification benefits by considering a broader set of factors. There can be variations in how different funds define and measure sustainability. Examples are SBI ESG Equity Fund, Aditya Birla SL Focused Fund (Thematic Fund), Tata Ethical Fund.

5. Renewable Energy Stocks

The companies represented by these stocks are those that work on developing, producing, or distributing renewable energy sources, such as hydroelectric, geothermal, solar, or wind energy. The need for clean energy and worries about climate change are driving a large expansion in the renewable energy industry. Examples are Adani Green Energy Ltd., Tata Power Company Ltd, Suzlon Energy Ltd.

By understanding these options, an investor can make informed decisions about aligning their investments with their sustainability goals and risk tolerance.

1.2 Objectives of the study

1. To assess investors' intentions and their level of awareness regarding green finance instruments.
2. To study the investors' investing behaviors towards green finance instruments.
3. To study the investors' perception on role of government in promoting the green finance in India.

1.3 Scope of the study

The analysis of investor attitudes towards green finance and its instruments is a significant field of study that aims to comprehend how people decide to invest in environmentally friendly finance instruments that are promoting sustainability. This area of research covers a wide range of topics, such as investor attitudes towards green finance instruments, reasons investor invests in them, perceived risks and benefits, and adoption barriers. This area of study covers a wide range of green finance instruments, including green bond, green loan, green deposit, sustainable mutual funds and renewable stocks. The analysis of investor behavior in relation to green finance instruments may also cover various stages of the decision-making process, such as awareness, consideration and evaluation. Understanding the variables that affect investors' decision-making processes when it comes to investing green finance instruments is the main goal of research on investors' perception towards green finance instruments. Government, Banks and policymakers who want to encourage the adoption of green finance and more sustainable investing may find this research to be helpful. The socioeconomic makeup of those who invest in sustainable finance instruments can be used to learn about the socioeconomic factors that have a big impact on their investing decisions. The attitude, perception, and investing behavior of consumers towards environmentally friendly finance instruments are important for gaining a comprehensive understanding of those investors' perceptions, emotions, and acts of compassion while making informed investment decisions.

Chapter 2- LITERATURE REVIEW

1. **H.M.N.K. Mudalige (2023)** In the article, the field of green finance is still developing, thus a thorough awareness of the new themes and trends is necessary. The aim of this study is to identify the developing issues that have received substantial attention over the past 12 years by performing a thorough literature review on green finance. A bibliometric study was conducted on 978 publications from the Scopus and Web of Science databases, which were published between 2011 and 2023, in order to determine the developing topics in the field of green finance. The author looked at the following: countries' scientific output, journal distribution, annual production of science, most relevant authors, most often occurring words, gaps in empirical research, words' frequency over time, trend subjects, and themes related to green finance.
2. **Peterson K. Ozilli (2022)** This paper examines the body of knowledge regarding green financing. It highlights the key themes found in the literature on green finance, including methods for boosting green funding, attempts to turn green investments into profits, the use of technology and policy to promote green financing, the role of financial institutions and regulators in the green finance agenda, and the difficulties associated with green financing. There are numerous recorded cross-national observations regarding the difficulties facing green financing and their remedies. According to the findings, green finance has the potential to significantly improve society, the environment, and the fight against climate change. However, there are a number of obstacles in the way, including a lack of knowledge about green finance, varying definitions of the term, a lack of policy coordination for green financing,
3. **Abhishek Ranjan (2021)** This paper highlights the public policy is beginning to prioritise green finance. This essay examines the advancements made in India and around the world in green finance. We evaluate the level of public awareness (Google Trends) and the available financing choices (bank loans and bond issuances) for green initiatives using a range of data sources. While public awareness and financing options have improved in India, our findings suggest that a reduction in asymmetric information through improved information management systems and enhanced stakeholder coordination could open the door to longer-term, more sustainable and environmentally friendly economic growth.
4. **Akhil Pasupuleti & Lakshmana Rao Ayyagari (2023)** This research paper study through a thorough assessment of the literature, the study aimed to comprehend the phenomenon of green finance in polluting companies. Thirty-five papers on green finance in polluting industries were searched, selected, classified, and categorised as part of the approach. The articles were examined across an eleven-year period, from 2011 to 2022. Green credit and environmental protection, green finance and green innovation, green innovation and environmental protection, green finance and investment, and green innovation and business success were the five issues that emerged from the review. The assessment has suggested ways to improve policy strengthening and use of large-scale data analysis going forward, suggesting possible directions for future study and development.

5. **Megha Chhaochharia(2020)** This study examines the global and Indian advances in green financing. Numerous data sources have been employed to evaluate public awareness levels and finance alternatives for environmentally friendly initiatives. The study's conclusions state that although public awareness and financing options have improved in India, a reduction in asymmetric information could be achieved through improved information management systems, improved stakeholder coordination, and a move towards longer-term, more sustainable economic growth.
6. **Heliyon (2023)** The impact of financial technology and green finance on sustainable economic growth is examined analytically in this paper. Data from Indian states between 2010 and 2021 served as the basis for the analysis. The study employs the panel regression technique to investigate the relationship between fintech, green finance, and economic growth. A two-step generalised model of moments (GMM) is utilised to identify any endogeneity concerns with the variables. This study shows that green finance greatly influences financial efficacy, environmental quality protection development, and finance structure, all of which contribute to high-quality economic growth. Fintech also has no negative effects on the relationship between green finance and economic effectiveness, but it does strengthen the important role that green finance plays in the financing structure and environmental quality protection.
7. **Loureiro (2019)** A systematic literature review (SLR) that highlights academics' opinions on the subject of green finance makes up the research. The work attempts to draft implications and insights to address future research, with the goal of providing a thorough grasp of the state of the art. The Scopus database is used to obtain access to the dataset for studies on green finance. In order to "identify, choose and critically appraise relevant pieces of research, and to generate collective insights of knowledge from past research," the methodological approach draws inspiration from Kraus et al. (2020).
8. **Md. Kashif Ansari (2010)** The term "sustainable finance" refers to the use of financial resources to support social, economic, and environmental goals. This includes "low-carbon finance," "green finance," and "climate finance." The achievement of "low carbon, green growth" depends heavily on green finance. It is essential in establishing connections between the financial sector, environmental enhancement, and economic progress. The Indian economy has traditionally found it difficult to finance such environmentally significant projects, particularly the capital needed to achieve the production of 175 gigawatts of renewable energy by 2022. The funding of renewable energy projects has traditionally been hampered in India by issues including high capital costs, inadequate debt financing, and short loan maturities. The work is broken up into several portions.
9. **Neha Khanna (2022)** This paper evaluates the areas where the green financing is required to meet the countries' sustainability targets under Paris Agreement. It also highlights the lack of commitment from both the public and private sector towards green finance in India. If proper compliance and financial inclusions are laid then this segment help public sector significantly to achieve sustainability goals.

10. **Dr. Mahadev Kharade (2018)** The study is about the environment is typically sacrificed in order to achieve rapid economic expansion. Massive pollution, deteriorating environmental conditions, and declining natural resource availability all pose health risks to the general public and hinder sustainable economic growth. Countries all over the world are concentrating more on employing environmentally friendly technologies in order to preserve and greatly enhance the environment. Within the finance industry, green finance is a relatively new idea. The private sector has become more significant due to finance for sustainable development and restrictions on state funding to lessen the consequences of climate change. Private financing known as "green finance" serves as a means of funding sustainable development.

Chapter 3- RESEARCH METHODOLOGY

In order to achieve the intended goals, the research is a thorough exploratory study that tries to use computational models and carry out statistical modelling. The tools and techniques used for the study are briefly covered in this chapter's discussion of the research approach.

1.1 Population and Sample Size Determination

Google forms were used to collect data from a sample of 74 respondents, including both men and women. In order to complete the research, the sample size was chosen based on the degree of green value, investor awareness, and benefit from using green instruments. Investors who fall within the study's target demographic are primarily older than 20. According to observations made while gathering investor data, investors over this age are believed to be engaged in regular investing who independently select their investments. The target population consists of working adults, students pursuing higher education, entrepreneurs, and stay-at-home mothers, who make up the majority of India's population. Non- probability sampling was used in this study. To reduce complexity, this method employs convenience sampling.

1.2 Data Collection Procedure

Through convenience sampling, a pre-designed structured questionnaire was created and given to the participants. The questionnaire includes demographic, single-choice, and the majority of closed-ended questions with a Likert scale with five scales (1=strongly agree, 5=strongly disagree). The questionnaire assessed the perceived influence of investors' purchase intentions on green loans, green deposits, green bonds, awareness, sustainable mutual funds and renewable energy markets. Google forms were used for the online data collection.

1.3 Data Toots Used

The information gathered from the primary source was put through a number of statistical tools for interpretation and verification. Data analysis was the main use for SPSS. The type of data analysis: descriptive. The results from the SPSS were copied to an Excel Worksheet, where they were improved upon and interpreted, in order to present the understanding of data analysis. Using Microsoft Excel, the necessary graphs, tables, and charts were also generated. Cross tabulation and mean analysis were carried out for the descriptive

analysis. In the case of inferential analysis, Chi Square, t-test, and ANOVA were used to infer conclusions from the data collected.

Understanding the relationship between variables representing investor perception towards green finance and its instruments. For a more thorough analysis of the hypothesis testing between the variables that represent these elements can be used to assess the degree of synchronicity these variables have with one another.

CHAPTER 4: DATA ANALYSIS

In order to gain an understanding of the variables that affect investor perception towards investing in green finance instruments, the analysis of information for this study combines descriptive, inferential, and exploratory techniques. This chapter primarily focuses on an exhaustive examination of the data that is currently available to learn more about the facts relating to investor perception with regard to green finance instruments. 70 respondents provided the information that was gathered.

4.1 Demographics analysis

Table.1 Demographics table

		Count	Count%
AGE			
	18-25	46	66%
	25-40	24	34%
GENDER			
	Female	42	60%
	Male	28	40%
EDUCATIONAL QUALIFICATION			
	High School or below	2	2.8%
	Bachelor's Degree	6	8.5%
	Master's Degree	62	88.5%
OCCUPATION			
	Entrepreneur	2	3%
	Salaried Employee	8	11%
	Student	60	86%
ANNUAL INCOME			
	Below INR 5,00,000	50	71%
	INR 5,00,000 - INR 10,00,000	12	17%
	INR 10,00,000 - INR 20,00,000	4	6%
	Above INR 20,00,000	4	6%
INVESTMENT EXPERIENCE			
	Less than 1 year	40	57%
	1-3 years	24	34%
	3-5 years	6	9%

Source: Own analysis using primary data

Here are some conclusions drawn from the information provided:

- Female participants make up more than male participants (60% vs. 40%).
- Most of the participants (66%) are between the age of 18-25 years, followed by those between the ages of 25 and 40 (34%).
- Only a few participants (2.8%) have high school or low, while the majority (88.5%) have postgraduate degrees.
- Students make up the majority of participants' occupational categories (86%), followed by salaried employees (11%). Only a small portion of participants identify as businesspeople, independent contractors, professionals, or recently unemployed.
- Most of the respondents have annual income below INR 5,00,000 (71%), followed by the once having annual income between INR 5,00,000 – INR 10,00,000 (17%). Only a small portion belongs to below INR 5,00,000 and above INR 20,00,000 annual income level.
- Investment experience among individuals surveyed, indicating that the majority (57%) have less than 1 year of investment experience, followed by (34%) with 1-3 years, and (9%) with 3-5 years of experience.

4.2 Hypothesis Testing

Hypothesis testing is an act in statistics whereby an analyst tests an assumption regarding a population parameter. The methodology employed by the analyst depends on the nature of the data used and the reason for the analysis.

Hypothesis 1 - Null hypothesis (Ho): There is no association (relationship or dependency) between Educational Qualification and Investor's familiarity with the green finance concepts and instruments.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Educational Qualification and investor's familiarity with the green finance concepts and instruments.

Table 2: Chi square test of association between Educational Qualification and investor's familiarity with the green finance concepts and instruments.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.79	4	0.147
Likelihood Ratio	6.96	4	0.138
N of Valid Cases	70		

Source: Own analysis using primary data

The results of two different chi-square tests—the Pearson Chi-Square and the Likelihood Ratio—are displayed in the output you provided. To investigate the relationship between categorical variables, both tests are used. The chi-square statistic's value for each test is shown in the first column, "Value," of the table. The degrees of freedom for each test are shown in the second column, "df," and they are equal to the number of categories minus one. Since there are four categories in this situation, $df = 4 - 1 = 3$. The p-value for each test is displayed in the third column, "Asymptotic Significance (2-sided)". In the event that the null hypothesis is correct, the p-value represents the likelihood of observing a result that is equally extreme to or more extreme than the observed result. The p-value is more than 0.05 in both instances, indicating strong evidence in support of the null hypothesis of no association between the variables.

Conclusion: The chi-square statistic (6.79) and the p-value (0.147) suggest that **there is no statistically significant association** between educational qualification and familiarity with green finance at the 5% significance level.

Hypothesis 2- Null hypothesis (Ho): There is no association (relationship or dependency) between Age and Investor’s familiarity with the green finance concepts and instruments.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Age and Investor’s familiarity with the green finance concepts and instruments.

Table 3: Chi square test of association between Age and Investor’s familiarity with the green finance concepts and instruments.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.00	2	0.014
Likelihood Ratio	16.95	2	0.014
N of Valid Cases	70		

Source: Own analysis using primary data

The results suggest that there is a relationship between age and green product purchasing behavior. The majority of individuals who are familiar with green finance are in the 18-25 age group (66%), followed by the 26-40 age group (34%).

Both tests have 2 degrees of freedom and the p-values for both tests are less than 0.05, which indicates a significant association between the variables being tested. It suggests a significant association between the variables being tested. There seems to be a higher proportion of younger respondents (18-25) in the "Very familiar" or "Somewhat Familiar" category than, a higher proportion of respondents in the 25 and above age groups in the "Not Familiar at all" category. Hence, rejection of null hypothesis.

Conclusion: The chi-square statistic (17.00) and the p-value (0.014) suggest a **statistically significant association** between age groups and familiarity with green finance at the 5% significance level.

Hypothesis 3- Null hypothesis (Ho): There is no association (relationship or dependency) between Income and Investor’s familiarity about the green finance.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Income and Investor’s familiarity about the green finance.

Table 4: Chi square test of association between Income and Investor’s familiarity about the green finance.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.09	6	0.169
Likelihood Ratio	10.96	6	0.090
N of Valid Cases	70		

Source: Own analysis using primary data

The Pearson Chi-Square test and the Likelihood Ratio test are two chi-square tests whose results are displayed in the table. The observed data differs significantly from what would be predicted under the null hypothesis of independence, according to both tests, which each have six degrees of freedom (df) and produce a very high p-value. With a p-value of 0.169 and a Pearson Chi-Square value of 9.09, it can be concluded that the variables under study are statistically not related. As a result, the null hypothesis cannot be rejected because there is no significant discrepancy between the income and the investor’s familiarity with green finance. Similar to how the Likelihood Ratio test value is 10.96 with a p-value of 0.090, not rejecting the null hypothesis is supported by this data.

Conclusion: The chi-square statistic (9.09) and the p-value (0.169) suggest that there is **no statistically significant association** between annual income level and familiarity with green finance.

Hypothesis 4- Null hypothesis (Ho): There is no association (relationship or dependency) between Annual Income Level and Investors’ willingness to accept lower financial returns in exchange for a higher environmental impact.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Annual Income Level and Investors’ willingness to accept lower financial returns in exchange for a higher environmental impact.

Table 5: ANOVA Test of association between Annual Income Level and Investors’ willingness to accept lower financial returns in exchange for a higher environmental impact.

Summary						
Groups	Count	Sum	Average	Variance		
Below INR 5,00,000	50	26	0.52	0.254694		
INR 5,00,000 - INR 10,00,000	12	4	0.33	0.242424		
INR 10,00,000 - INR 20,00,000	4	2	0.50	0.333333		
Above INR 20,00,000	4	2	0.50	0.333333		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.339048	3	0.113016	0.43501	0.728653	2.743711
Within Groups	17.14667	66	0.259798			
Total	17.48571	69				

Source: Own analysis using primary data

Based on the provided summary, ANOVA Test was constructed with one variable—"Annual Income Levels"—and a “Investors’ willingness to accept lower financial returns in exchange for a higher environmental impact. The p-value of 0.728653 is greater than the conventional significance level (e.g., $\alpha = 0.05$), suggesting that we fail to reject the null hypothesis (Ho). There is no significant association or relationship observed between Annual Income Level and Investors’ willingness to accept lower financial returns for a higher environmental impact.

Conclusion: The p-value (0.728653) suggest that there is **no statistically significant association** between Annual Income Level and Investors’ willingness to accept lower financial returns in exchange for a higher environmental impact.

Hypothesis 5- Null hypothesis (Ho): There is no relationship (correlation or dependency) between Occupation and investors' perception on importance of government role in promoting the green finance in India.

Alternative hypothesis (H1): There is a relationship between Occupation and investors' perception on importance of government role in promoting the green finance in India.

Table 6: ANOVA Test of association between benefits and consumer buying behavior towards green products.

Summary						
Groups	Count	Sum	Average	Variance		
Entrepreneur	2	4	2	0		
Salaried Employee	8	18	2.25	0.214286		
Student	60	114	1.9	0.633898		
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	0.871429	2	0.435714	0.75049	0.476077	3.133762
Within Groups	38.9	67	0.580597			
Total	39.77143	69				

Source: Own analysis using primary data

ANOVA Test was performed to understand the relationship between investor's perception on importance of government to promote green finance in India with regard to occupation of the investors. The F-value of 0.75049 indicates that the variation between occupation groups in terms of perception scores is relatively small compared to the variation within each group. The p-value of 0.476077 is greater than the conventional significance level (e.g., $\alpha = 0.05$), suggesting that we fail to reject the null hypothesis (Ho). There is no significant relationship or dependency observed between Occupation and investors' perception on the importance of government's role in promoting green finance based on this analysis.

Conclusion: Based on the ANOVA results, we **do not have enough evidence** to conclude that occupation is associated with investors' perception of the government's role in promoting green finance.

4.3 Finding and Recommendations

According to the study's findings, investors' awareness about the green finance instruments, awareness and benefits derived are the key determinants of whether they choose to invest in green finance instruments. This emphasizes how crucial it is for companies to educate investor about the environmental advantages of such investments to environment which act as a push to achieve sustainability goals of the economy. Companies, government, RBI and SEBI and other regulatory bodies should collaboratively work towards innovative green finance instruments to encourage the investors with sufficient choices to invest with long term growth opportunities. They can also incentive the investor to invest in such instruments through tax exemptions, implementing proper rules and regulations and creating more awareness within the country.

The study sought to understand how investor perceive green finance. The study's key findings are listed below.

- Of the respondents, 60% were women and 40% were men.
- The age group of respondents with the highest percentage (65.7%) is under 18-25 years old.
- The majority of respondents (88.6%) have completed post-graduate coursework.
- The income of the respondents is below INR 5,00,000 in 71.4% of cases.
- 74.4% of respondents were familiar with advantages and benefits of green finance.
- Renewable energy stocks (40%), Sustainable mutual funds (34.3%), Green Bonds (25.7%) are most famous green finance instruments among the investors.
- 65.7% of respondents think ESG (Environmental, Social, and Governance) assessment is necessary before investing.
- Diversification of investment portfolio (68.6%), Potential for long term growth (51.4%), Positive impact on the environment (51.4%), Social responsibility (48.6%) are the motivating factors for the investors who consider to invest in green finance instruments.
- 48.6% of respondents are willing to accept lower financial returns in exchange for a higher environmental impact.

- Reason for not investing in a green finance can be attributed to lack of awareness (65.7%), Limited investment options (45.7%), Difficult to analyses the risk (40%), Limited returns (31.4%) and regulatory hurdles (25.7%) are the common reasons highlighted by the respondents.
- The government needs to take corrective action and raise awareness for people to be persuaded to invest in environmentally friendly financial instruments.
- To eventually transition to a green economy, the government should promote green finance in the economy.
- According to the findings, financial news websites and social media are the famous platforms that are used by the investors to attain the latest update about the stock market and green finance opportunities in the market, So the regulatory authorities can use this information sources effectively to create awareness and promotion of green finance in the economy so that the investor can make the informed decisions.
- Also, majority of the investor (60%) believes that the demand for the green finance will increase in the next 5 years as most of the global economy are becoming sustainably conscious while undertaking any operation in the economy. Most of the countries have also agreed upon the net zero targets under Paris Agreement which is one of the major reasons to expand the green finance market in every country.

4.4 Limitation of the study

Although this study has shed light on the marketing of green products, there are still some research limitations that should be considered in future investigations.

- **Sample Size:** The sample size is a bit small with only 70 respondents and might not be representative of the entire population. A greater number of respondents might provide a more accurate representation of the level of consumer knowledge regarding green products.
- **Sampling Bias:** Because the poll was completed online, sampling bias may have occurred. Those who are more inclined to take part in online surveys could behave and hold different attitudes towards green product than those who do not.
- **Self-Reporting Bias:** Since the results in the survey were self-reported, biases such as social desirability bias and recall bias may have been present. It's possible that respondents gave responses they believed to be socially acceptable.
- **Time Restrictions:** Because the study was carried out at a given time, attitudes and behaviors of consumers towards buying a green product may have altered since then.

CHAPTER 5: CONCLUSION

The primary goal of the essay was to examine how investors' perception while making investment decision for green finance instruments. Factors like an investor's age, gender, income, or educational background have some impact on their investing decisions and satisfaction with green finance instruments. Investor investing decisions are influenced by their level of motivation and personal value for the instruments. Younger investors have been found to be kinder to the environment. Investor consider climate risk and ESG assessment before making any investing decisions which is a positive sign. Some of them are even willing to accept lower financial returns in short run for a higher environmental impact.

Gender has no bearing on how investor choose to invest in green finance instruments. However, it has been observed that those under the age of 20, or the younger generation, are more likely to invest in green finance instruments because they are good for the environments and have long term returns which not only diversify the portfolio but also make the investor socially responsible. The investing habits of investor will directly influence the corporates to be environmentally responsible and indirectly influence the ecofriendly environment and net zero carbon footprints in the country.

Global investing in green finance has increased in recent years, which is proof of the rapid economic expansion. Therefore, businesses, government and other regulatory bodies must put more effort into enhancing the green investing by offering more green investment instruments, better regulatory compliance to enhance flexibility for the investors, more efforts to promote green finance in the economy by providing sufficient incentives like tax exemptions. It turns out that although investor is aware of the concept, they only have a vague understanding of the facts regarding the components of green finance. Investors must be informed properly and regularly about the green finance instruments and opportunities through reliable sources this will improve the market efficiency in regard to green finance

REFERENCES

1. Collins Marfo Agyeman (2014), "Consumers buying behavior towards green products", *International journal of management research and business strategy* 3(1), 188-197.
2. Vishnu Nath, Rupesh Kumar, Rajat Agarwal, Aditya Goutham and Vinay Sharma (2013), "consumer adoption of green products: Modeling the enablers", *Global business review* 14(3) Volume: 14 issues: 3, page(s): 453-470
3. Vinnie Jauhari and Kamal Manaktola, *International journal of contemporary hospitality management*. Vol. 19 No. 5, pp. 364-377.
4. Aindrila Biswas and Mousumi Roy, "Green products: an exploratory study on the consumer behavior in emerging economies of the East", *Journal of Cleaner Production*, Volume 87, 15 January 2015, Pages 463- 468
5. Prashant Kumar, Bhimrao M Ghodeswar (2015), "Factors affecting consumers green product purchase decisions", *Marketing Intelligence & Planning*, Vol. 33 No. 3, pp. 330-347. Emerald Group Publishing Limited
6. Celine Michaud and Daniel Llerena, "Green consumer behavior: An experimental analysis of willingness to pay for remanufactured products", *Business strategy and the Environment* 20(6). Volume20, Issue6 September 2011 Pages 408-420 September 2011 Pages 408-420
7. Aradhana Gandhi and Pratima Sheorey, "Antecedents of green consumer behavior: a study of consumers in a developing country like India", *International Journal of Public Sector Performance Management* 2019 Vol.5 No.3/4
8. Wilson Kong, Amran Harun, Rini Suryati Sulong and Jaratin Lily, "The influence of consumers perception of green products on green purchase intention", *International Journal of Asian Social Science*, 2014, volume 4(8): no. 924-939
9. William young, Kumju Hwang, Seonaidh Mc Donald and Caroline J Oates, "Sustainable Consumption: green consumer behavior when purchasing products", *Sustainable development* Volume18, Issue1 January/February 2010 Pages 20-31
10. Meghna Sharma and Prachi Trivedi, "Various Green Marketing Variables and Their Effects on Consumers Buying Behavior for Green products", *International Journal of Latest Technology in Engineering, Management & Applied Science* 5(1), Volume V, Issue I, January 2016

11. Nina Mazar and Chen-Bo Zhong, "Do green products make us better people?", *Psychological Science* 21(4). Vol 21, Issue 4, 2010
12. Clare D' Souza, Mehdi Taghian Peter Lamb and Roman Peretiatkos, "Green products and corporate strategy: an empirical investigation", *Society and Business Review* volume1 issue 2:144-157
13. "In search of the green consumers: A perceptual study (2007) by K Chitra, *Journal of Services Research* volume 7 issue 1
14. Clare D'Souza, Mehedi Taghian and Rajiv Khosla , *Journal of Targeting, measurement and Analysis for Marketing* volume 15 issue 2
15. Rosa Maria Dangelico and Devashish pujari, "Mainstreaming green product innovation: Why and how companies integrate environmental sustainability", *Journal of business ethics* volume 95 issue 3
16. Iman Khalid A Qader and Yuserrie Zainuddin , "The influence of media exposure, safety and health concerns and self-efficacy on environmental attitudes towards electronic green products" (2011), *Asian Academy of Management Journal* volume 16 issue 2
17. Ronald Drozdenko, Marlene Jensen and Donna Coelho, "Pricing of green products: Premium paid, consumer characteristics and incentives" (2011), *International Journal of Business, Marketing and Decision Sciences* volume 4 issue 1
18. Marie – Cecile Cervellon and Lindsey Carey , *Critical studies in fashion & beauty* volume 2 issue (1-2)
19. Aakanksha Singhal, Garmia Malik, "The attitude and purchasing of female consumers towards green marketing related to cosmetic industry" (2018), *Journal of Science and Technology policy management*
20. Jacob Cherian, Jolly Jacob (2012), "Green marketing: A study of consumers attitude towards environment friendly products", *Asian Social Science* volume 8 issue 12

ANNEXURE

The Study on Investor's Perception of Green Finance in India

Dear Respondent,

The following questionnaire is intended to elicit your valuable opinion regarding Green Finance.

Green Finance is to increase level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities.

We would appreciate it if you spare a few minutes to fill out this form. This survey is part of our MBA Dissertation and hence we assure you that the information so collected will be kept confidential and will be utilized for academic purposes only.

Thanks in advance for your response.

yukti.baweja11@gmail.com [Switch account](#)



* Indicates required question

Email *

Record yukti.baweja11@gmail.com as the email to be included with my response

Age *

Under 18

Age *

- Under 18
- 18-25
- 25-40
- Above 40

Gender *

- Male
- Female
- Others

Educational Qualification *

- High School or below
- Bachelor's Degree
- Master's Degree
- Doctoral Degree
- Professional Certification

Occupation *

- Student
- Salaried Employee
- Entrepreneur
- Retired
- Home-maker
- Others

Annual Income *

- Below INR 5,00,000
- INR 5,00,000 - INR 10,00,000
- INR 10,00,000 - INR 20,00,000
- Above INR 20,00,000

Next

Clear form

Investor's Perception on Green Finance

For how long you have the experience of making investment decisions? *

- Less than 1 year
- 1-3 years
- 3-5 years
- 5+ years

How familiar are you with green finance? *

- Very familiar
- Somewhat familiar
- Not familiar at all

Which of the following green finance instruments have you invested in or aware of? *

- Green Bonds
- Green Deposits
- Green Loans

- Sustainable mutual funds
- Renewable energy stocks
- Carbon Market Instruments
- None of the above

What motivates you to invest in green finance? *

- Positive impact on the environment
- Social responsibility
- Diversification of investment portfolio
- Potential for long-term growth
- Alignment with personal values

Do you consider climate risk while investing in particular financial instruments? *

- Yes
- No

What challenges do you face when trying to invest in green finance opportunities in India? *

What challenges do you face when trying to invest in green finance opportunities *
in India?

- Lack of awareness
- Regulatory hurdles
- Limited investment options
- Limited Returns
- Difficult to analyse the risk

Do you believe that green finance can drive positive change in the world? *

- Yes
- No
- Maybe

How do you stay informed about green finance opportunities? *

- Financial news websites
- Social media
- Financial advisors

Would you be willing to accept lower financial returns in exchange for a higher environmental impact? *

- Yes
- No

How do you think the demand for green finance will change in the next 5 years? *

- Increase Significantly
- Increase
- No Change
- Decrease
- Decrease Significantly

How important is to assess the ESG (Environmental, Social, and Governance) of the company before investing ? *

- Extremely Important
- Important
- Neutral

Not Important At All

What role do you think governments should play in promoting green finance in India? *

- Offering tax incentives
- Implementing regulations
- Introducing more green finance instruments
- Creating more awareness
- None, it should be market-driven

Do think that the government have extremely important role to play to promote green finance in order to boost green initiatives in India ? *

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

[Back](#)

[Submit](#)

[Clear form](#)

● 8% Overall Similarity

Top sources found in the following databases:

- 4% Internet database
- Crossref database
- 6% Submitted Works database
- 1% Publications database
- Crossref Posted Content database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	PES University on 2024-03-07 Submitted works	1%
2	icmai.in Internet	1%
3	pib.gov.in Internet	<1%
4	Sri Balaji University, Pune on 2022-12-05 Submitted works	<1%
5	St. Xavier's College on 2020-11-23 Submitted works	<1%
6	Gitam University on 2023-12-10 Submitted works	<1%
7	Sanjay Taneja, Simranjeet Kaur, Ercan Özen. "Using green finance to pr... Crossref	<1%
8	University of Northampton on 2010-09-29 Submitted works	<1%