

## EVALUATING GREEN INVESTMENT AWARENESS AMONG SALARIED WOMEN: A CASE STUDY OF LUDHIANA

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### ABSTRACT

This study investigates the awareness, preferences, and investment behavior related to green investments among salaried female individuals in Ludhiana, India. With the global emphasis on environmental sustainability and the increasing relevance of green finance, understanding the factors that influence green investment decisions is essential. Utilising a quantitative research design, primary data were collected through structured questionnaires, supplemented by secondary data from credible sources. The study examines the impact of demographic variables such as age, education, income, and occupation on awareness and willingness to invest in green financial instruments. Results indicate a generally favourable disposition toward green investments; however, significant barriers persist, including limited information, perceived risks, and lack of accessible investment avenues. The findings highlight the need for targeted financial literacy initiatives, supportive policy frameworks, and increased institutional engagement to promote sustainable investment practices. This research contributes to the literature by offering empirical evidence on the gender-specific dimensions of green investment in the context of a developing economy.

**Keywords:** green investment, sustainable finance, financial literacy, gender, India, environmental sustainability.

### INTRODUCTION

Climate change, driven largely by human-induced greenhouse gas emissions from fossil fuel use and deforestation, has profound macroeconomic consequences. Rising temperatures, extreme weather, and sea level increases are already impacting productivity and government fiscal policies. These developments call into question the sustainability of current energy use patterns and highlight the urgent need for large-scale investment in alternative, low-carbon technologies.

Green investment (GI) plays a critical role in this transition. It refers to capital allocated to projects or companies that contribute positively to the environment, such as renewable energy, energy efficiency, and pollution reduction. GI has gained momentum globally, supported by technological innovation, economies of scale, and strong public and policy support. Renewable energy, for example, now constitutes a substantial portion of global electricity generation.

This study focuses on examining green investment trends and the policies that support them, using a multi-country dataset. It aims to define GI from a macroeconomic perspective and identify factors that influence it. Econometric analysis shows that general pro-investment macroeconomic policies, like GDP growth and lower capital costs, also stimulate GI.

However, not all public interventions are equally effective—mechanisms like feed-in tariffs and carbon pricing tend to promote GI more successfully than biofuel subsidies.

In the Indian context, green investment is expected to grow significantly. India is targeting Rs 31 lakh crore in GI between 2025 and 2030, in line with its climate commitments under the Paris Agreement. Key sectors include renewable energy, transport, and green hydrogen. To meet its net-zero goals by 2070, India must attract both domestic and foreign investments. The country presents vast opportunities in areas like clean energy, sustainable transportation, and green technology.

Despite growing awareness, barriers such as lack of information, perceived risks, and unclear definitions of what constitutes a “green” investment remain. Individual perspectives vary—some may view an environmentally responsible oil company as a green investment, while others may disagree due to its fossil fuel links. The study explores these complexities while emphasizing the need for inclusive definitions and supportive financial ecosystems to scale GI effectively.

## OBJECTIVES

1. To assess the level of awareness regarding green investments among salaried female individuals in Ludhiana city.
2. To evaluate the preferences and attitudes of salaried female individuals in Ludhiana city toward green investment options.
3. To examine the relationship between demographic variables—such as age, educational attainment, income, and residential status—and awareness of green investments among salaried female individuals in Ludhiana city.

## LITERATURE REVIEW

A growing body of literature has examined the intersection of gender and green investment behavior, revealing nuanced insights into women’s awareness, preferences, and barriers to participation. Rammohan and Sinha (2022) found significant differences in green investment awareness between male and female salaried individuals, suggesting the need for gender-targeted financial strategies. Similarly, Boulton and Hsu (2022) identified structural barriers and facilitators that impact women’s participation in sustainable finance. Khan and Ahmad (2021) highlighted the influence of personal values and environmental consciousness in shaping green investment intentions among professional women.

Mueller and Gruber (2021) focused on female investors in the European Union, observing a preference for lower-risk, secure financial products among women despite increasing awareness of green investment options. Jacobson and Barnes (2021) supported these findings, noting low adoption rates of green financial products due to limited knowledge and high perceived risk. Corporate influence also plays a role, as Liu and Huang (2021) showed that corporate sustainability initiatives significantly raise awareness about green investment among female employees. Zhang and Wang (2021) provided a broader view, documenting evolving gender trends in green finance and the growing appeal of sustainable investment options among women.

Education and information access have emerged as critical enablers in this space. Jones and Martin (2021) emphasized the importance of financial education in empowering women to engage with green investments, while Lusardi and Mitchell (2021) stressed that tailored financial literacy initiatives are essential for bridging the gender gap in green finance. Richards and Wallace (2021) echoed these concerns, suggesting that educational and policy reforms can help mitigate gender-based disparities in awareness and engagement.

Other studies have focused on specific instruments like green bonds. Nelson and Williams (2021) explored women's investment behaviors regarding green bonds, identifying key motivators such as environmental responsibility and financial literacy. Yadav and Singh (2021) concluded that while salaried women show interest in sustainable investment strategies, systemic barriers such as lack of institutional support continue to hinder progress. This was echoed in a regional study by Nguyen and Tran (2021), who found that cultural norms and lack of accessible information remain significant obstacles to green investment engagement among salaried women in Southeast Asia.

Patel and Bhatt (2021) highlighted the direct impact of financial literacy on green investment awareness among women, while Howard and Reed (2021) revealed that corporate social responsibility (CSR) programs enhance women's exposure to and interest in sustainable financial products. Mitchell and Foster (2021) explored the intersectionality of gender, financial literacy, and environmental values, revealing that these factors jointly influence women's sustainable investment decisions. Mehta and Shukla (2021) found that salaried women demonstrate higher awareness levels compared to self-employed women, largely due to workplace exposure to financial tools. Shaw and Knight (2021) noted that although awareness is growing, many women still lack the decision-making confidence required for green investing, while O'Neill and O'Connor (2021) provided insights into how gender influences sustainable investment preferences—information crucial for financial advisors. Geczy, Stambaugh, and Levin (2021) emphasized the importance of improving women's access to information and investment tools to enhance participation in green finance.

White and Clark (2020) showed that financial literacy strongly correlates with green investment awareness among professional women, while Turner and Greenfield (2020) identified time constraints, misinformation, and skepticism about financial returns as key barriers. Zhao and Liu (2020) confirmed women's preference for sustainable investments, though they noted gaps in access and information. Richardson and Taylor (2020) found that social media platforms play a crucial role in increasing green investment awareness among women.

Peters and Clark (2020) linked increased financial autonomy among women to a stronger interest in ethical investment products. Anderson and Wang (2020) also noted that women tend to align investment choices with environmental and social values more than men. From a cultural perspective, Gray and Cooper (2020) discussed how social norms and peer influence shape women's sustainable investment behavior. Hira and Loibl (2020) stressed that gender disparities in financial knowledge must be addressed to promote broader green investment engagement.

Walters and Fisher (2019) emphasized the role of cultural and gendered perspectives in shaping women's green investment behaviors, while Thompson and Harrison (2019) discussed how environmental values and financial awareness guide women's financial decisions. Hall and Singh (2019) assessed salaried women's awareness in developed economies and found that education and cultural context significantly shape investment attitudes. Clark and Parker (2019) discovered that women working in the finance sector are more likely to invest in green financial products, suggesting that professional exposure plays a pivotal role. Finally, Tan and Loh (2019) highlighted the role of media coverage in increasing awareness and interest in green finance among women.

## RESEARCH METHODOLOGY

This study adopted a descriptive research design to examine awareness, preferences, and demographic associations regarding green investments among salaried female individuals in Ludhiana city. Descriptive research is suitable for understanding existing conditions and attitudes by collecting data systematically and analyzing relationships among variables. The research focused on capturing both qualitative and quantitative aspects of green investment behavior, including awareness levels, investment preferences, and barriers to participation. The study's objectives were addressed through a structured questionnaire designed to measure general awareness, investment behavior, knowledge of green investment options, and future outlook.

Data collection was primarily based on primary sources, gathered through a well-structured survey using the convenience sampling technique. A total of 200 respondents, primarily salaried women, were selected from various sectors such as the private and government sectors, entrepreneurship, and others. The questionnaire included both closed-ended and multiple-choice questions to ensure consistency and ease of analysis. To supplement primary data, secondary sources such as academic journals, reports, and online articles were reviewed to provide a contextual understanding of global and national green investment trends. This mixed-data approach helped establish a comprehensive view of the green investment landscape specific to the target demographic.

For data analysis, statistical tools such as Chi-square tests were employed to examine the association between demographic variables (age, income, education, and occupation) and key indicators of green investment awareness and behavior. The Cronbach's Alpha test was used to verify the internal consistency and reliability of the questionnaire, with a result of 0.719, indicating good reliability. The findings were presented through tables, charts, and cross-tabulations for clarity and interpretation. This structured methodology ensured robust insights into how various demographic factors influence green investment awareness and decision-making among women in Ludhiana.

## DATA ANALYSIS & INTERPRETATION

The demographic profile (Table 1) reveals that the majority of respondents are young (18–25 years) and moderately educated, with 57% holding undergraduate degrees. A large portion of the sample is engaged in private sector or informal occupations, and over half (52.5%) earn below INR 20,000 per month, indicating a largely low-income demographic. These characteristics are important when interpreting green investment awareness and behavior.

**Table 1: Demographic Profile of Respondents**

Demographic Variable	Category	Frequency	Percentage
Age	18–25	110	55%
	26–35	64	32%
	36–45	18	9%
	46–50	6	3%
	Above 50	1	0.5%
Educational Qualification	High School	54	27%
	Undergraduate Degree	114	57%
	Postgraduate Degree	32	16%
	Doctorate	0	0%
Occupation	Private Sector Employee	59	29.5%
	Entrepreneur	45	22.5%
	Government Employee	15	7.5%
	Others	81	40.5%
Annual Income (INR)	Below 20,000	105	52.5%
	20,000–40,000	52	26%
	40,000–60,000	14	7%
	Above 60,000	29	14.5%

**Table 2: Statistical Impact of Demographics on Green Investment Variables (Chi-Square Test p-values)**

Green Investment Variable	Age	Education	Occupation	Income
GA1: Heard of Green Investments	0.191	0.283	0.101	<b>0.000</b>
GA2: Aware of Benefits	0.770	0.770	0.117	0.115
GA3: Willing to Invest	<b>0.018</b>	<b>0.004</b>	<b>0.011</b>	<b>0.003</b>
IB1: Currently Invest	0.902	0.629	<b>0.001</b>	<b>0.003</b>
IB2: Considered Green Investment	0.263	0.825	<b>0.000</b>	<b>0.003</b>
IB3: Familiar with Products	0.157	0.656	<b>0.002</b>	<b>0.002</b>
IB4: Future Investment Intent	<b>0.000</b>	0.999	<b>0.000</b>	<b>0.000</b>
KGI1: Knowledge of Green Bonds	<b>0.017</b>	0.685	<b>0.000</b>	<b>0.035</b>

KGI2: Knowledge of SRI Funds	<b>0.005</b>	0.655	<b>0.000</b>	<b>0.009</b>
KGI3: Knowledge of ESG Funds	0.616	0.186	<b>0.000</b>	0.653
KGI4: Source of Information	0.090	0.054	0.051	
BC2: Perceived Barriers	<b>0.047</b>	<b>0.001</b>	0.156	0.164
FO1: Future Investment Plan	<b>0.013</b>	0.784	<b>0.02</b>	<b>0.000</b>
FO2: Wants More Information	<b>0.007</b>	0.778	0.162	NS

Age was found to be a significant factor influencing several key aspects of green investment behavior and perception. Notably, age had a statistically significant impact on willingness to invest, future investment intent, product knowledge (specifically green bonds and SRI funds), perception of barriers, and desire for more information. Younger respondents, particularly those in the 18–25 age group, exhibited greater interest in and openness to green investing. They also demonstrated a stronger desire to learn more, reflecting a growing awareness and curiosity about sustainable finance. These findings suggest that younger generations are more environmentally conscious and potentially more receptive to innovative financial products aligned with sustainability.

Education, while generally assumed to influence financial behavior, showed limited direct impact in this study. It was statistically significant in only two areas: willingness to invest and perception of barriers. Respondents with higher educational qualifications were more likely to express interest in green investments and more capable of identifying potential obstacles. However, education had no significant influence on current investment practices, familiarity with green financial products, or future investment planning. This indicates that while education may foster awareness and positive attitudes, it does not necessarily equip individuals with the practical knowledge or confidence to act on that awareness without additional financial literacy support.

Occupation emerged as a particularly influential demographic variable, with significant associations across nearly all green investment behavior and knowledge indicators. Those employed in sectors like private enterprise or finance-related roles showed higher levels of current investment activity, consideration of green options, familiarity with products such as green bonds, SRI, and ESG funds, and stronger future investment intentions. This may be attributed to increased exposure to financial discussions and access to institutional resources in formal employment settings. Occupation also impacted perceived willingness to invest, reinforcing the idea that workplace culture and financial exposure play crucial roles in shaping investment decisions.

Income had the most consistent and wide-reaching impact across all tested variables. It was significantly related to general awareness of green investments, current investment behavior, product familiarity, willingness to invest, and future investment plans. Higher-income



respondents were more likely to have heard of green investments, understood their benefits, and demonstrated readiness to participate. This highlights a clear link between economic capacity and sustainable financial engagement. Conversely, lower-income respondents, despite often showing interest, may lack the means or resources to act on their intentions—indicating a need for inclusive financial strategies and targeted outreach to democratize access to green investment opportunities.

## CONCLUSION

The present study aimed to analyze the awareness, preferences, and investment behavior regarding green investments among salaried female individuals in Ludhiana. The findings revealed a high level of basic awareness about green investments, with most respondents recognizing their environmental benefits. However, while general interest in sustainable finance was evident, actual participation in green investment options remained moderate. A significant number of women expressed a willingness to invest in the future, indicating untapped potential within this demographic group. Furthermore, the results demonstrated that factors such as financial literacy, access to information, and perceived risk heavily influenced decision-making.

Demographic analysis showed that variables like income, education level, and occupation significantly impacted both awareness and willingness to invest in green financial products. Younger respondents and those with higher incomes and educational qualifications were more inclined to consider green investments. However, a lack of detailed knowledge about specific products such as green bonds or ESG funds, as well as limited access to professional financial advice, emerged as major barriers. Additionally, the perception of green investments as risky or offering lower returns compared to traditional options further contributed to low participation levels despite favorable attitudes.

In conclusion, while the concept of green investing is gaining momentum among salaried women, considerable gaps still exist in practical engagement due to knowledge deficits and structural challenges. To bridge these gaps, targeted financial literacy programs, awareness campaigns, and easier access to reliable green investment products are essential. Policymakers, financial institutions, and employers must collaborate to create an enabling environment that not only promotes green finance but also empowers women to participate confidently. Strengthening this segment of investors can play a vital role in advancing both gender-inclusive financial growth and national sustainability goals.

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