



FINANCING SUSTAINABLY TOWARDS SUSTAINABLE ENERGY SOURCES TO PROTECT THE ENVIRONMENT

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ABSTRACT

Environmental factors could include adaptation and mitigation of climate change and environmental factors, more generally, such as pollution avoidance, biodiversity preservation, and the circular economy. Sustainable energy sources that are regarded as sustainable include the sun, the wind, and hydropower, which are generally universally accessible and can all be considered to be endless. Burning fossil fuels in coal and natural gas facilities is closely linked to several grave public health problems, including cancer, heart attacks, strokes, neurological disorders, and early mortality. Burning fossil fuels for energy causes pollution in the air and water, adversely affecting the ecosystem and communities nearby. By financing sustainable energy sources for households, industries, and production, we can have a balanced and sustained environment for the future. This paper studied sustainable financing towards sustainable energy sources and focused on household solar power usage. The paper constructed four main factors: price sensitivity, awareness towards sustainable development goals, preference in financing to protect the environment, and benefits in financing on sustainable sources. The paper concludes that most consumers were aware of the importance of sustainability in finance and the environment and preferred to pay a premium for a sustainable environment.

Keywords: Sustainability, Finance, Sustainable Energy, Consumer, and Preference.

JEL Classification: C12, D0, Q29, Q39, Z43.

1. Introduction

To increase long-term investments in sustainable economic activities and projects, the financial industry must consider environmental, social, and governance (ESG) factors when making investment decisions. This process is known as sustainable financing. Environmental factors could include adaptation and mitigation of climate change and environmental factors, more generally, such as pollution avoidance, biodiversity preservation, and the circular economy. Social considerations might include human rights concerns and issues of inequality, inclusivity, labor relations, and investment in people and their communities. Incorporating social and environmental factors into the decision-making process is largely dependent on the administration of public and commercial institutions, which

includes management structures, employee relations, and executive remuneration. Any form of electricity that is renewable and has a never-ending supply qualifies as sustainable energy. Sustainable energy fulfills our energy requirements without requiring regeneration or replenishment and never runs the risk of running out or going bad. For this reason, the solution to our energy needs is sustainable energy. However, all these associated concerns can be entirely circumvented by moving to sustainable energy. The paper aims to study sustainable financing towards sustainable energy sources, focusing on household solar power usage. The paper constructed four main factors: price sensitivity, awareness towards sustainable development goals, preference in financing to protect the environment, and benefits in financing on sustainable sources.

2. Literature Review

Table 1 Literature Review

Study	Author(s)	Key insights
Motivating sustainable consumption.	Jackson, T., & Guildford Surrey. (2005)	Motivating sustainable consumption makes the policymakers address unsustainable consumption patterns and sustainable lifestyles. A concerted strategy is needed to make it easy to behave more sustainably.



Antecedents of Environmentally and socially responsible sustainable consumer behavior	Maja Hosta & Vesna Zabkar (2020)	Dimensions of sustainability can achieve sustainable, responsible consumption, and consumers need to have a sense of social and environmental issues.
Consumer Preferences for Solar Energy: A Choice Experiment Study.	Mamkhezri, J., Thacher, J. A., & Chermak, J. M. (2020)	The preference towards solar has increased and positively impacted the marginal willingness to pay for rooftop solar and smart meter installation.
Factors affecting Consumer Purchase intention for buying solar energy products.	Arshiya Fathima, M. S., Moideen Batcha, H., & Alam, A. S. (2022)	Perceived behavioral control, attitude, and energy concern variables significantly influenced consumers' purchase intention toward solar energy products.
Influence of made with renewable energy appeal on consumer behaviour,	St. Uni Mydock III, S. J. P., Almubarak, A. F., Johnson, L., & Kortt, M. (2018)	The future temporal orientation (FTO) influences attitude towards the brand, attitude towards advertisement, purchase intention, and willingness to pay for premium brands. Consumers are favorable towards renewable energy products.

3. Unique Approach

The study analyses the four constructs of a consumer, namely, price sensitivity, awareness towards Sustainable Development Goals, Preference in financing to protect the environment, and benefits in financing on sustainable sources. The study concludes with major findings and recommendations to protect the environment.

4. Methodology

The study used a streamlined methodology to analyze the customer choice in Madurai city for financing sustainable energy sources sustainably. The methods were created to investigate and analyze the specified variables efficiently.

5. Survey Design

A well-written questionnaire serves as the main instrument for data collection. It analyzes various factors, including price sensitivity, financing preference, benefits, and awareness level.

6. Sample Selection

Purposive sampling was used to choose the samples, and samples from various demographics, including economic class, education level, and income level, were chosen. Urban dwellers are included in the diversity of samples since they are the ones who prioritize sustainability the most.

7. Data Collection

Data were gathered using an online poll over two weeks. The questionnaire underwent a preliminary review process by multiple specialists in the subject.

9. Results

Following adjustments, it was sent via mail and social media channels to ensure a wide reach among the sample population.

8. Data Analysis

Statistical software has examined the data and tested the hypothesis using descriptive and inferential statistics.

8.1 Hypothesis

- ❖ Income level has a positive influence on the Price sensitivity of the consumers in financing sustainable energy sources.
- ❖ Education has a positive influence on the Awareness of Sustainable Development Goals
- ❖ Economic class has a positive influence on the Price sensitivity of the consumers in financing sustainable energy sources.

Table 1 - Chi-Square Tests

CONSTRUCTS	PEARSON CHI-SQUARE		
	Value	df	Asymp. Sig. (2-sided)
Income level * Price sensitivity	6.981 ^a	12	.859
Education * Awareness about SDG Goals	9.842 ^a	12	.630
Economic class * Price sensitivity	169.274 ^a	16	.000

(Source: Primary data)

From the above table, it is inferred that i) the income level of the consumers seems to have a positive influence on the Price sensitivity of the consumers to invest towards sustainable energy sources, ii) the education has a positive influence on the consumer's knowledge on the awareness towards Sustainable Development Goals and, iii) but the



economic class do not influence Price sensitivity of the consumers. The results of the hypothesis show that only income decides the price sensitivity, and no matter what, if the consumer's income level is affordable, they go for sustainability with an even premium. It does not depend on their economic class. Also, their education level shows their sustainability awareness; even the illiterate can know about this through newspapers and television.

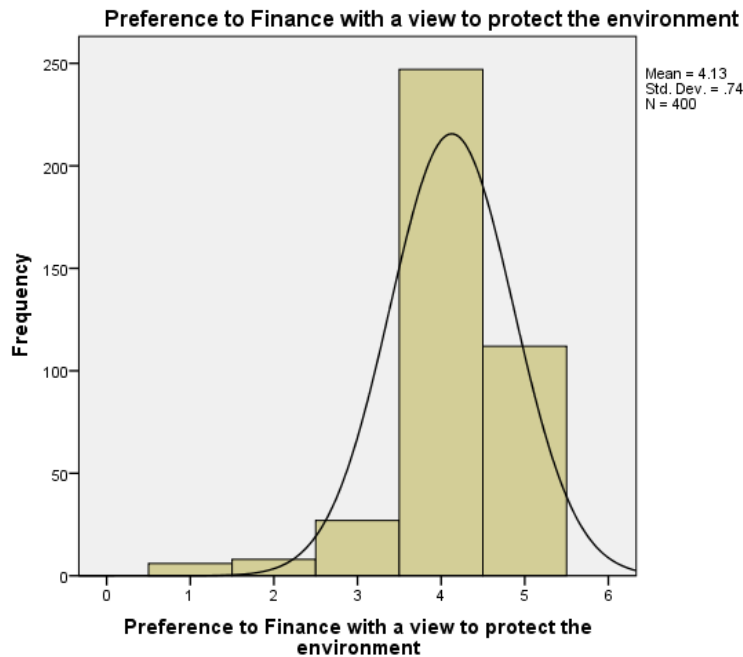


Figure 1 – Preference to Finance on sustainable energy to protect the environment

(Source: Primary data)

From the above Figure 1, it can be understood that most consumers prefer to finance sustainable energy, such as solar power, by keeping in mind the protection of the environment. Here, major consumers agreed to finance.

10. Implications of Findings

- It is inferred that the income level of the consumers seems to have a positive influence on the Price sensitivity of the consumers to invest in sustainable energy sources,
- Education has a positive influence on the consumer's knowledge and

awareness of Sustainable Development Goals and

- However, the economic class does not influence the Price sensitivity of the consumers.
- Only income decides the price sensitivity. No matter what, if the consumer's income level is affordable, they go for

sustainability with even premiums that do not depend on their economic class.

- Also, their education level shows their sustainability awareness; even the illiterate can know about this through newspapers and television.
- It can be understood that most consumers prefer to finance sustainable energy, such as solar power, by keeping in mind the protection of the environment. Here, major consumers agreed to finance

11. Recommendations

- Numerous governmental bodies have established particular sustainability objectives, like the European Green Deal, which rely on companies, non-profits, and people altering their personal and professional habits. Governments or agencies should offer low - or preferential-rate grants, subsidies, or tailored blended finance packages to encourage these reforms.
- Instead of using fixed-term interest payback schedules, several sustainable investment solutions can aim to align the repayment

schedule with the financial advantages accrual.

- One of the most significant sources of information about an organization's adherence to ESG guidelines is its financial situation. For instance, payments to companies contributing to environmental issues can be identified, and options for switching to more ESG-compliant resources and companies can be offered. It would also be very helpful to have a rewards system to encourage customers to use sustainable resources.

12. Conclusion

Sustainable finance is essential to fulfill the policy goals outlined in the European Green Deal and the EU's international commitments for climate and sustainability goals. In addition to using public funds, it accomplishes this by directing private investment toward creating an economy that is resource-efficient, resilient to climate change, and fair. Investments in a resilient economy and a long-term recovery from the COVID-19 pandemic's effects will be facilitated by sustainable finance. Sustainable finance funds current environmentally friendly (green) and long-term projects that



gradually move toward environmentally friendly performance levels (transition finance). To transition to a sustainable and climate-neutral economy, transition finance aims to finance private initiatives to lower the high levels of greenhouse gas emissions or other environmental problems. If no green technologies are available, these could take the form of investing in environmentally friendly production techniques or making every effort to minimize the environmental impact. Frequently, businesses that wish to become sustainable but must do so gradually—that is, businesses with various beginning points that Businesses who wish to become sustainable but must do it gradually—that is, enterprises with varying starting points seeking to finance their transition to a sustainable future—often require it.

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