Chapter 8
Green Energy-Related Financial Literacy for Environmentally Sustainable Development.

José G. Vargas-Hernandez
https://orcid.org/0000-0003-0938-4197
Financial Literacy Research Center, Universidad Cristóbal Colón, Mexico & Tecnológico Nacional de México, ITS Fresnillo, Mexico

Csongor Czipf
https://orcid.org/0000-0003-4830-5754
Gyula Kautz Faculty of Economics, Széchenyi István University, Győr, Hungary

Absalón J. Salmerón-Zapata
https://orcid.org/0009-0002-2621-2426
Universidad Cristóbal Colón, Mexico

ABSTRACT

In the framework of ecologically sustainable development, this research paper explores the crucial relationship between financial literacy and the use of green energy. The study looks into how institutional and individual financial knowledge affects choices about energy-efficient technology, sustainable financial products, and investments in renewable energy. This paper highlights important gaps in green energy financial literacy that impede the shift to sustainable energy systems by thoroughly analyzing the body of existing literature, actual data, and theoretical frameworks. The study uses a mixed-methods approach, combining qualitative interviews with policymakers and industry professionals with quantitative surveys of 2,500 respondents from a

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range of demographic categories. Important findings show that although 78% of respondents are generally aware of the advantages of green energy, only 32% of them are sufficiently knowledgeable about green investments, tax breaks, financing options, and long-term cost-benefit evaluations.

INTRODUCTION

One of the most important issues of the twenty-first century is the global shift to sustainable energy systems, which calls for hitherto unheard-of cooperation between governmental frameworks, individual consumer behavior, and technology innovation (International Energy Agency, 2023). Green energy adoption is still lagging behind the pace required to meet international climate targets set by the Paris Agreement, despite the fact that technological advancements in renewable energy have significantly decreased costs and increased efficiency (United Nations Framework Convention on Climate Change, 2021). The discrepancy between market adoption and technological maturity has highlighted the importance of financial literacy in sustainable energy transitions.

Traditional financial contexts including debt management, investing, and saving have been the subject of much research on financial literacy, which is generally described as the information and abilities required to make wise financial decisions (Lusardi & Mitchell, 2014). Nevertheless, despite its potential importance for environmentally sustainable growth, the field of green energy financial literacy is still largely unexplored. Understanding renewable energy financing methods, being aware of potential incentives and subsidies, comprehending long-term cost-benefit assessments for energy investments, and being familiar with green financial products and services are all components of green energy financial literacy.

Beyond the choices made by individual consumers, the significance of green energy financial literacy has wider systemic implications for sustainable development. Customers may make poor choices that prolong dependency on fossil fuels, raise long-term energy expenses, and worsen environmental conditions if they are not financially informed about green energy solutions (Chen & Volpe, 2019). On the other hand, increased financial literacy in green energy fields can boost economic growth in clean energy sectors, decrease greenhouse gas emissions, increase energy security, and hasten the adoption of renewable technologies.

By offering a thorough examination of green energy financial literacy and its connection to environmentally sustainable development, this study fills a significant vacuum in the literature. The study looks at how consumer behavior around renewable energy investments is influenced by financial literacy, identifies financial literacy deficiencies as a barrier to green energy adoption, and assesses the effica-

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