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Determinants of Intention to Adopt Rooftop PV in Indonesia: A Literature Study

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ABSTRACT

Indonesia aims to achieve Net Zero Emissions by 2060, with renewable energy playing a key role in this transition. To support this, the government targets a renewable energy mix of 17–19% by 2025. Solar energy offers the highest potential, with an estimated capacity of 208 GW. Rooftop photovoltaic (PV) systems are a promising solution, especially in the residential sector, which is the largest electricity consumer. Despite policy support and growing interest, adoption remains low. The slow adoption is partly due to the underdeveloped solar energy market and limited consumer acceptance. Understanding the factors that influence Indonesians' intention to adopt rooftop PV is therefore crucial. This study aims to evaluate theoretical frameworks used in previous studies to identify such factors through a literature review approach. The findings show that several models have been widely used, including the Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM), and the Unified Theory of Acceptance and Use of Technology (UTAUT). Among them, UTAUT is identified as a particularly flexible and comprehensive framework for explaining consumer intention, as it integrates performance, effort, social influence, and facilitating conditions. These insights highlight UTAUT's potential in guiding future research to promote rooftop PV adoption in Indonesia.

Keywords: *Behavioral Intention; Rooftop PV Adoption; Renewable Energy*