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Economics of Household Technology Adoption in Developing Countries: Evidence from Solar Technology Adoption in Rural India

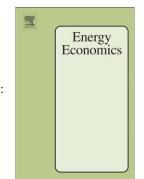
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Economics of Household Technology Adoption in Developing Countries: Evidence from Solar Technology Adoption in Rural India

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Abstract

Innovation is one of the most important drivers of economic development. Even in developing countries, households have access to a wide array of new technologies. However, factors affecting households' technology adoption decisions remain poorly understood. Using data on solar microgrid adoption from rural India, we investigate the determinants of household technology adoption. We offer all households identical solar products to avoid bias from product differentiation. Households pay a monthly fee for technology use, allowing us to abstract away from credit constraints as a barrier to adoption. The results show that household expenditures and savings as well as the household head's entrepreneurial attitude are strong predictors of adoption. In contrast, past fuel expenditures, risk acceptance, and community trust are not associated with technology adoption decisions. These findings suggest new directions for research on the microeconomics of household technology adoption, which is critical for sustainable development among the poor in developing countries.

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