An analysis on factors affecting adoption of solar lamps in Narumoru, Nyeri County Kenya

SUBMITTED BY

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This dissertation is a product of my own work and is not the result of anything done in collaboration. It has not been previously presented to any other institution. I agree that this dissertation may be available for reference and photocopying, at the discretion of the St. Paul's University.

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ABSTRACT

Many donor countries are currently involved in campaigns to create awareness of the modern forms of energy to complement the grid connections. It is estimated that there are approximately 1.4 billion low-income people that lack electricity in the developing world. Thanks to rapid advances in technological innovations, developing countries have come up with alternative sources of modern clean energy. Within the lighting sector, solar lamps have registered remarkable increase in light output at declining cost. Kieni constituency has an estimated population of 693,558 according to the 2009 census. Of this, only 26.3% households are connected with electricity. The rest of the population depends on wood fuel and kerosene for lighting and cooking. It is an area that has been targeted for solar lamps yet the uptake of solar lamps is low when compared against the population. It had been the fifth year since the push for solar products started in Kenya. Despite availability of economically feasible solar products and the accruing health benefits, their adoption has been very slow in the country. The researcher sought to establish why this is so by examining influence of credit facilities, education and awareness, distribution and accessibility and the role of government agents and support groups in promoting solar lamps. A sample size of 385was taken from 7890 clients of Faulu Kenya and 3576 of Eclof Kenya Microfinance organizations that previously had been reached with solar products through their groups. Two data collection instruments were used in gathering primary data. These were questionnaires and Key Informant Interviews. The data was analyzed using SPSS for measures of central tendency, distribution and dispersion. It was then presented using frequency tables and percentages, pie charts and bar graphs. The findings showed that the factors under study are relevant in pushing for solar products adoption and usage. Stakeholders should consider developing viable financing models, increase distribution and accessibility as well as enhance education and training for solar products for faster adoption. The Government should be more proactive than perceived. It should provide incentives, a favorable legal environment and should offer training for solar users. Possibility of a stronger public-private partnership should be rooted for wider acceptance and usage of solar lamps.

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