



Theoretical Framework for Analysing LED Lighting Technologies Adoption in Off-grid Communities of Western Kenya: A Multi-Dimensional Dynamics Perspective

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Published: 06 May 2013 | **Received:** 20 December 2012 | **Accepted:** 26 March 2013

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DOI: [10.5281/zenodo.18980951](https://doi.org/10.5281/zenodo.18980951)

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Abstract

LED lighting technologies are increasingly being adopted in off-grid communities of Western Kenya as a sustainable solution to address energy poverty and environmental challenges. A multi-disciplinary approach will be employed, integrating insights from sociology, economics, and technology diffusion theory. This theoretical framework offers valuable insights for policymakers and implementers aiming to accelerate the uptake of LED technologies in similar contexts. Further research should explore specific barriers and facilitators affecting different socio-economic groups within off-grid communities.

Keywords: *Kenyan, Geographical, Socioeconomic, Technological, Innovation, Sustainability, Development*

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