

REVIEWER'S REPORT

Manuscript No.: IJAR-54001

Date: 25-09-2025

Title: VERS UNE EFFICACITE ÉNERGETIQUE UNIVERSITAIRE EN AFRIQUE DE L'OUEST : ÉTUDE MIXTE ET MODELISATION STRUCTURELLE A L'UNZ-KOUDOUGOU.

Recommendation:

Accept as it is
Accept after minor revision.....
 Accept after major revision
 Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity		✓		
Significance		✓		

Reviewer Name: Mr.Bilal Mir

Reviewer's Comment for Publication:

1. Summary

This manuscript investigates energy efficiency determinants in Sub-Saharan African universities, using a mixed-methods approach at the University Norbert Zongo (UNZ) in Burkina Faso. The study combines a quantitative survey of 155 users with 41 semi-structured interviews and incorporates energy audits and structural equation modeling (SEM) to explore the relationships between awareness, attitudes, behaviors, and organizational factors.

Key findings include:

- A notable gap between high energy awareness (3.87/5) and actual energy-saving practices (3.21/5).
- A potential 35–55% reduction in energy consumption through technical optimization and behavioral interventions.

REVIEWER'S REPORT

- Identification of four user typologies, including 28.4% “conscious-passive” users with high mobilization potential.
- Critical weaknesses in institutional energy governance and a “compensation energy” phenomenon in the Sahelian context.

The study emphasizes the need for holistic approaches combining technical, organizational, and behavioral strategies to improve energy efficiency in African universities.

2. Strengths

1. **Originality and Relevance:** Addresses a significant research gap on energy efficiency in African higher education institutions.
2. **Methodological Rigor:** Uses a robust mixed-methods design, integrating quantitative surveys, qualitative interviews, energy audits, and SEM.
3. **Comprehensive Data Collection:** Adequate representation of different user categories and thorough analysis of energy consumption patterns.
4. **Clear Practical Implications:** Offers actionable insights for institutional policy and energy management.
5. **Integration of SEM:** Provides strong evidence for causal relationships between awareness, attitudes, behaviors, and institutional factors.

The manuscript makes a significant contribution to the literature on energy efficiency in African universities. With minor revisions addressing SEM reporting, practical implementation guidance, and language clarity, the paper is suitable for publication.