

## REVIEWER'S REPORT

Manuscript No.: IJAR- 53475

Date: 22-08-2025

**Title:** Digital transformation and good governance in decentralized territorial communities towards a predictive model

### 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: **Sudhanshu Sekhar Tripathy**

Date: 22-08-2025

### Reviewer's Comment for Publication.

*(To be published with the manuscript in the journal)*

*The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewer's name.*

### Reviewer's Comment for Publication

The manuscript presents an innovative study exploring the nexus between digital transformation and good governance in Benin's decentralized municipalities. By combining conceptual analysis with predictive modeling using AI, the research highlights how digital maturity significantly influences governance outcomes. The integration of AI techniques (Random Forest, ANN, regression) makes the work both theoretically valuable and practically applicable for policy-makers in Sub-Saharan Africa.

### Detailed Reviewer's Report

Recommendation: **Accept after minor revision.**

### *Comments & Suggestions for Improvement*

#### 1. Scope & Relevance:

- The paper addresses an important topic at the intersection of digital governance, decentralization, and artificial intelligence.

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- The focus on West Africa, and particularly Benin, provides novel insights where empirical research remains limited.
- The study's predictive approach contributes to the advancement of smart governance models in developing countries.

## 2. Structure & Technical Presentation:

- The manuscript is well structured (Introduction, Methodology, Results, Discussion, Conclusion).
- Tables and figures are appropriate, though some visualizations could be clearer (e.g., Figure 1 could be expanded with comparative charts).
- A flowchart of the predictive modeling process would greatly enhance clarity.
- Section numbering is consistent, but a summary of methodology in a schematic diagram would aid readers.

## 3. Experimental / Methodological Details:

- The methodology is comprehensive, covering data sources (reports, surveys, administrative records), variables (digital maturity, governance dimensions), and analytical techniques (correlation, regression, AI models).
- The inclusion of all 77 municipalities strengthens validity and reduces sampling bias.
- AI-based predictive modeling is well described, but hyper-parameter details (e.g., number of trees in Random Forest, neural network architecture) should be clarified.
- Cross-validation procedures are mentioned; reporting folds and performance variance would increase reproducibility.

## 4. References & Citations:

- References are adequate and relevant, covering both global and regional contexts (World Bank, OECD, UNDP, etc.).
- Citation style should be checked for uniformity across the manuscript.
- Some recent literature on digital governance and AI in Africa could be added to enrich the review.

## 5. Language & Style:

- The manuscript is clearly written with a professional academic tone.
- Minor grammatical corrections and shortening of long sentences would improve readability.
- Avoid redundancy in discussion (some points on transparency and accountability are repeated).

## 6. Key Strengths:

- Exhaustive dataset covering all municipalities of Benin.
- Strong correlation and regression results demonstrating predictive power of digital maturity.
- Innovative integration of AI algorithms with practical policy implications.

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- Clear identification of priority areas for digital investment (e-government adoption, staff training, citizen services).

### 7. Areas for Improvement:

- Add a flowchart/visual framework showing the relationship between digital maturity indicators and governance outcomes.
- Provide more detail on AI model setup and parameter tuning.
- Expand discussion on limitations of predictive models in resource-constrained contexts.
- Future work should consider comparative regional studies (e.g., across Sub-Saharan Africa).

### Final Feedback to Author

This is a strong and innovative paper that effectively links digital transformation with governance outcomes in decentralized contexts. To improve clarity and reproducibility, the authors should: (i) provide more detailed AI model specifications, (ii) include a flowchart of the predictive framework, and (iii) condense repetitive sections in the discussion. Addressing these minor revisions will significantly enhance the paper's scholarly impact and policy relevance.