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REVIEWER'S REPORT

Manuscript No.: **IJAR-52630** Date: 04.07.2025

Title:
"RISK OF BRIDGE CONSTRUCTION USING THE PROMETHEE METHOD IN PAPUA"

Recommendation:
Accept after major revision .....

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

Reviewer Name: Dr.K.Arumuganainar **Date:** 04.07.2025

Reviewer's Comment for Publication.

The topic is important and methodology appropriate, but the manuscript requires substantial improvements in language, structure, analysis explanation, and formatting for publication in a reputed journal.

Detailed Reviewer's Report

"RISK OF BRIDGE CONSTRUCTION USING THE PROMETHEE METHOD IN PAPUA"

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1. Title Evaluation

- **Relevance & Specificity:** The title reflects the core content well, highlighting both the region (Papua) and the methodology (PROMETHEE) used for risk analysis.
- **Suggestion:** Minor refinement such as *"Risk Assessment in Bridge Construction Projects in Papua Using PROMETHEE Method"* could enhance clarity.

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2. Abstract Review

- **Content:** The abstract outlines the background, purpose, methodology (SI, RBS, PROMETHEE), and key findings.
- **Clarity:** Some grammatical errors and overly long sentences reduce readability.
- **Key Issue Identified:** Culture and customs of local communities are the dominant risk factor.
- **Recommendation:** Revise for grammar and conciseness.

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3. Introduction

- **Strengths:**
  - Clearly sets the geographical and infrastructural context of Papua.
  - Justifies the need for risk management in the bridge construction sector.
- **Areas for Improvement:**
  - Needs better flow and logical transitions between ideas.
  - Several references are not well integrated into the discussion.

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4. Literature Review

- **Coverage:** Adequate theoretical foundation on risk, risk management, project management, and PROMETHEE method.
- **Citations:** Included but sometimes outdated or inconsistently formatted.
- **Improvement:** More current international literature could strengthen the review; citation style should be standardized (APA/IEEE).

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5. Methodology

- **Design:**
  - Data from four bridge projects in Papua.
  - Primary data through questionnaires, interviews, and observations.
  - Use of Severity Index (SI), Risk Breakdown Structure (RBS), and PROMETHEE method for ranking.
- **Strengths:**
  - Multi-method data collection.
  - Structured risk variable breakdown (internal/external; predictable/unpredictable).
- **Limitations:**
  - Sample size (only 4 projects and limited respondents) may affect generalizability.
  - The PROMETHEE explanation is basic and lacks visual tools like decision trees or pairwise comparison charts.
- **Recommendation:** Include a more robust justification for using PROMETHEE over other MCDM methods (e.g., AHP, TOPSIS).

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6. Data Analysis and Results

- **Strengths:**
  - Clear application of SI and RBS in identifying key risks.
  - PROMETHEE is effectively used to rank high-risk factors based on time and cost impact.

- **Key Findings:**
  - **Top risk:** Local cultural/customary issues.
  - Other risks: Material unavailability, delayed deliveries, and unstable soil.
- **Presentation:** Tables and calculations are detailed but poorly formatted in places.
- **Improvement:**
  - Use of graphs/diagrams for PROMETHEE output would improve visual interpretation.
  - Clarify weighting logic and consistency in PROMETHEE ranking.

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7. Discussion

- **Strengths:**
  - Results are well-aligned with the study objectives.
  - Explanation of how cultural challenges directly influence project risk is insightful.
- **Weaknesses:**
  - Discussion lacks depth on how risks can be mitigated.
  - No comparison with similar regional or international cases.

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8. Conclusion

- **Summary:** Accurately reflects findings—local culture is the highest risk factor in bridge construction delays/cost overruns in Papua.
- **Missing Element:** Practical recommendations for mitigation, stakeholder engagement, or policy suggestions.
- **Recommendation:** Expand conclusion to suggest actionable steps and future research direction.

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9. References

- **Quantity:** Sufficient.
- **Quality:** Mix of local and academic sources; several are useful.
- **Formatting:** Inconsistent—needs alignment to a specific referencing style (APA preferred).

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10. Language and Style

- **Grammar and Syntax:** Frequent errors (e.g., “Sevirity Index” should be “Severity Index”), awkward phrasing, and some untranslated terms.
- **Recommendation:** Full language editing by a native speaker or use of advanced proofreading software.

Overall Strengths

- Addresses a crucial and under-researched issue (bridge construction in remote areas).
- Applies PROMETHEE method innovatively to risk analysis.
- Data collected from real projects.

Overall Weaknesses

- Poor English language quality.
- Formatting inconsistencies.
- Lack of visual tools for PROMETHEE analysis.
- Limited sample size and geographical coverage.

Final Recommendation

- **Recommendation: Major Revision**

- **Justification:** The topic is important and methodology appropriate, but the manuscript requires substantial improvements in language, structure, analysis explanation, and formatting for publication in a reputed journal.