

REVIEWER'S REPORT

Manuscript No.: IJAR-52630

Date: 05-07-2025

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

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 Mir Bilal

Reviewer's Comment for Publication.

General Comments:

This manuscript presents an insightful and contextually grounded analysis of risk factors influencing bridge construction projects in Papua, Indonesia. The use of structured risk analysis tools, namely the Severity Index (SI), Risk Breakdown Structure (RBS), and the PROMETHEE (Preference Ranking Organization Method for Enrichment Evaluations) method, is particularly commendable and reflects a methodologically sound approach. The paper effectively combines qualitative and quantitative assessments to produce meaningful conclusions that are applicable in practice.

Scientific Content and Practical Relevance:

The research addresses a critical infrastructure challenge in Papua—a region known for its complex topography and limited accessibility. The justification for infrastructure development is well-stated, emphasizing the socio-economic importance of road and bridge connectivity. The focus on identifying and ranking risk indicators provides a structured risk management framework that is highly relevant for construction practitioners working in remote and sensitive regions.

The identification of key risk indicators—such as the influence of local culture, supply chain disruptions, and environmental conditions—is directly applicable to the regional context of Papua. The conclusion that the "culture and customs of the surrounding community" represents the highest-ranked risk underlines the importance of integrating socio-cultural considerations into infrastructure planning and project execution.

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Methodological Rigor:

The manuscript demonstrates a solid methodological foundation. Data collection through questionnaires and interviews conducted across four construction service providers in Jayapura ensures a practical and empirical basis for the study. The combined use of the Severity Index, RBS, and PROMETHEE methods allows for a comprehensive and multi-dimensional analysis of risk. The integration of multiple tools enhances the reliability of the findings and ensures a nuanced interpretation of both cost and time-related risks.

Clarity and Organization:

The manuscript is logically structured, beginning with a contextual overview followed by a clear statement of objectives. The analysis is presented concisely and is easy to follow. The language is functional and appropriate for a technical audience, and the narrative remains focused on risk prioritization throughout the paper. The use of specific risk indicators and their systematic evaluation contributes to the clarity and depth of the analysis.

Conclusion:

This study makes a valuable contribution to the literature on risk management in infrastructure development, particularly in geographically and culturally complex environments like Papua. By applying a robust methodological framework and emphasizing local contextual variables, the research offers actionable insights for stakeholders involved in planning and executing bridge construction projects under high-risk conditions.