

REVIEWER'S REPORT

Manuscript No.: IJAR- 58322

Title: THE EFFECT OF PROJECT MATERIALS ON TIME PERFORMANCE IN THE IMPLEMENTATION OF ROAD WORKS IN BIAK NUMFOR REGENCY.

Recommendation:

Accept

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

Reviewer Name: Dr. Ashish Yadav

Detailed Reviewer's Report

Reviewer's Comment for Publication.

Acceptance Comments are mentioned below suitable for the paper titled "THE EFFECT OF PROJECT MATERIALS ON TIME PERFORMANCE IN THE IMPLEMENTATION OF ROAD WORKS IN BIAK NUMFOR REGENCY"

Reviewer Comments: Accept

Reviewer Comments –

1. Introduction

The introduction effectively highlights the importance of material management in achieving timely completion of road construction projects. It clearly explains the unique logistical and geographical challenges faced in Biak Numfor Regency, including transportation constraints and limited material availability. The research problem is well articulated, and the study objectives are clearly defined. Overall, the introduction establishes the practical relevance of examining material-related factors influencing project time performance.

2. Literature Review

The literature review provides a comprehensive discussion of construction material management, procurement practices, supply chain efficiency, and project time performance. It appropriately incorporates previous studies that demonstrate the relationship between material availability, quality, logistics, and construction productivity. The review also introduces the application of Structural Equation

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Modeling–Partial Least Squares (SEM-PLS) as a suitable analytical technique for examining complex relationships among project variables. The identified research gap justifies the need for the present study in the context of remote island infrastructure projects.

3. Solution Approach

The research methodology is well structured and appropriate for achieving the stated objectives. The use of a quantitative survey involving 50 respondents from project owners, consultants, and contractors ensures that multiple stakeholder perspectives are represented. The application of SEM-PLS provides a robust statistical framework for evaluating the relationships between material factors and project time performance. The methodological procedures are clearly described, enhancing the reliability, transparency, and reproducibility of the research findings.

4. Results and Discussion

The results are presented clearly and demonstrate a strong positive and statistically significant relationship between project material factors and time performance. The reported path coefficient, T-statistic, P-value, and R-square values provide convincing empirical evidence supporting the proposed research model. The discussion effectively explains why material quality serves as the primary supporting factor, while insufficient material availability represents the major constraint affecting project schedules. The proposed improvement strategies are practical, evidence-based, and directly aligned with the statistical findings, making them highly valuable for construction practitioners and project managers.

5. Conclusion

The conclusion successfully summarizes the major findings and confirms that effective material management plays a critical role in improving the time performance of road construction projects in Biak Numfor Regency. The recommended strategies—including enhancing material quality, strengthening procurement and distribution systems, improving material planning, and increasing storage supervision—are practical and well supported by the empirical analysis. The study provides meaningful contributions to construction project management, particularly for infrastructure projects in geographically challenging regions. The manuscript is recommended for publication.