

Benefits of Concrete Prefabrication Panel Construction Technologies in Building Reconstruction and Development Programme (RDP) Housing Units in South Africa: A Literature Review

Authors Names

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CITC-14 | SEPTEMBER 2-5, 2024
HOSTED BY FEDERAL UNIVERSITY OF RIO DE JANEIRO
RIO DE JANEIRO, BRAZIL

CITC GLOBAL
Construction in the 21st Century



Introduction & Background

- Overview of prefabrication construction techniques and their potential benefits in the South African context, particularly in RDP housing.
- Emphasis on the importance of innovative construction techniques to improve efficiency, sustainability, and quality in low-cost housing.

Aim, Objectives, and Scope

Aim:

- To explore the benefits of using concrete prefabrication panel construction technologies in RDP housing units in South Africa.

Objectives:

- Identify the key benefits of prefabrication in terms of cost, quality, speed, and sustainability.
- Analyze how these benefits can address challenges in the South African construction industry.

Scope:

- Focus on the potential benefits within the context of RDP housing projects in South Africa.

Research Design and Methodology

Methodology:

- Systematic literature review using PRISMA approach.

Tools:

- Literature search conducted on Google Scholar, using relevant keywords to identify studies from 2010 to 2024.

Data Sources:

- Conference papers, journals, dissertations, and books.

Results (1)

Key benefits identified:

- Cost-effectiveness through mass production and lower construction costs.
- Faster construction timelines, leading to productivity improvements.

Results (2)

Additional benefits:

- High-quality construction with improved safety standards.
- Sustainability through reduced environmental impact.

Discussions, Conclusions & Recommendations (1)

Summary of the benefits:

- Prefabrication as a solution to housing scarcity and environmental concerns.
- Potential for improving design and safety in RDP housing.

Recommendations for further research and practical application of prefabrication technologies.

Discussions, Conclusions & Recommendations (2)

Conclusion: Prefabrication offers significant advantages for the South African construction industry, particularly in the context of RDP housing. Embracing these technologies could lead to better housing outcomes, aligning with sustainable development goals.