



Impact of Kanban Practices on Project Management Performance of Construction Industry

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Abstract

This research investigates the role of Kanban methodologies in optimizing project outcomes in the construction industry, specifically within the Colombo district of Sri Lanka. The construction sector in this region faces challenges such as workflow inefficiencies and inconsistent project performance, necessitating innovative approaches like Kanban to enhance project management practices. The study aims to determine the extent to which six core Kanban practices Visualizing the Workflow (VW), Limiting Work in Progress (WIP), Measuring and Managing Flow (MM), Making Process Policies Explicit (PE), Implementing Feedback Loops (FL), and Improving Collaboratively through Experimental Evolution (CE) can positively influence performance indicators such as schedule, quality, cost, safety, and stakeholder satisfaction in construction projects. A quantitative research approach was employed, utilizing an online survey distributed to project management professionals working in Colombo's construction sector. The data gathered from the survey was analyzed using SPSS software to identify significant correlations between the implementation of Kanban practices and improvements in project performance. The results demonstrated that the adoption of Kanban practices leads to noticeable improvements in project efficiency, schedule adherence, and overall quality, while also enhancing safety standards and stakeholder satisfaction. These findings suggest that construction companies in Colombo should integrate Kanban into their project management frameworks to address specific challenges and drive continuous improvement. The study provides a solid foundation for further research into the broader applicability of Kanban across different sectors and its potential integration with emerging technologies to further enhance project management effectiveness.

Keywords: Construction project performance, Continuous improvement, Kanban, Work in progress, Workflow visualization,

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