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Effect of Agile Construction Management on Performance of Project Delivery Systems

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ABSTRACT

Agile construction management is an innovative approach that focuses on flexibility, collaboration, continuous improvement, and efficient project execution in the construction industry. Traditional construction management methods often face challenges such as project delays, cost overruns, resource shortages, communication gaps, and difficulties in responding to unexpected changes. Agile construction management provides an effective framework to address these challenges through adaptive planning, teamwork, continuous monitoring, and timely decision-making. It emphasizes cooperation among project owners, contractors, engineers, architects, and other stakeholders to ensure smooth project implementation. The application of agile principles in construction projects can improve the performance of project delivery systems by reducing delays, optimizing resource utilization, controlling costs, and enhancing work quality. Regular progress reviews, flexible scheduling, risk identification, and continuous feedback enable project teams to respond quickly to changing requirements and unexpected circumstances. Furthermore, agile practices promote transparency, accountability, coordination, and effective communication among project participants. These practices can contribute to improved project efficiency, timely completion, stakeholder satisfaction, and overall project success. The effectiveness of agile construction management depends on organizational readiness, technological infrastructure, skilled professionals, leadership support, and stakeholder participation.