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## **Enhancing Subcontractor Selection in Construction Projects Using the Analytic Hierarchy Process (AHP)**

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### **Abstract**

The increasing complexity of construction projects and the growing demand for specialized contractors have made subcontractors essential stakeholders in the successful delivery of construction activities. However, selecting a professional, highly qualified, and efficient subcontractor remains one of the most critical challenges in the construction industry. Traditionally, subcontractor selection has relied primarily on the lowest bid price, a subjective approach that often fails to ensure the best choice. In reality, subcontractor selection is a complex, multi-criteria decision-making (MCDM) problem. This research aims to develop a systematic and structured model to enhance the subcontractor selection process. The model is based on the Analytic Hierarchy Process (AHP), a widely recognized MCDM technique. The proposed model was validated through a case study, demonstrating its simplicity, practicality, and effectiveness in supporting informed decision-making and identifying the most suitable subcontractor.