# The Role of Smart Applications and Software in Enhancing Project Management in Saudi Arabia's Construction Industry

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## Abstract

The building sector in Saudi Arabia is crucial for stimulating economic growth and development. Nonetheless, it encounters substantial obstacles, such as inefficiencies, budget overruns, and delays, which impede its advancement. This study examines the efficacy of smart applications and software in project management within the construction sector of Saudi Arabia. The study seeks to examine the advantages and obstacles related to these technologies, analyze their influence on project results, and determine critical success elements for their deployment. A mixed-methods approach was utilized, integrating an extensive literature analysis with primary data acquisition via surveys and interviews of project managers and specialists proficient in smart applications.

Statistical analysis was conducted using SPSS software to analyze the collected data. The results reveal that smart applications significantly improve project efficiency, enhance collaboration, and promote transparency. However, challenges such as high implementation costs, data security issues, and resistance to change were identified as barriers to this sector. The study highlights the importance of training, robust cybersecurity measures, and strategic integration of smart technologies to maximize their potential. These insights contribute to the existing body of knowledge and provide practical recommendations for practitioners, policy makers, and researchers. Future research directions are also proposed to explore the transformative role of smart applications in project management.