

عنوان مقاله:

BIM Adoption in MENA's Construction Industry: A Contractor's Perspective

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خلاصه مقاله:

This study delves into the multifaceted landscape of Building Information Modeling (BIM) adoption and implementation across the Middle East and North Africa (MENA) region's construction industry. Employing an online survey methodology, the research scrutinizes the varied profiles of contractors. Through regression analysis, the study investigates the impact of institutional pressures on the contractors' BIM adoption, implementation, encountered barriers and challenges, expected benefits and outcomes, and related expertise and training. The analysis then extends to evaluate the interrelationships among such BIM variables. The key findings reveal significant influences of institutional pressures on BIM adoption and benefits as well as their expected benefits and outcomes but less impact on overcoming BIM barriers and challenges and enhancing expertise and training. The research highlights the limited role of BIM expertise and training in the adoption, implementation, and realization of its benefits and outcomes within the MENA construction sector. Furthermore, the study concludes that barriers, challenges, benefits, and outcomes don't have a significant effect on BIM's adoption and implementation. The study also evaluates the primary benefits and outcomes of BIM alongside the main barriers and challenges encountered. Crucially, the research identifies and dissects the salient barriers to BIM deployment, such as awareness and expertise deficiency, financial and human resource constraints, training shortages, and resistance to change. This study not only provides a detailed snapshot of the BIM landscape but also lays the groundwork for addressing the persistent challenges and harnessing the full potential of BIM in revolutionizing construction methodologies in the MENA region. Doi:

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کلمات کلیدی:

MENA Region; Construction Industry; Contractors; Institutional Pressures; BIM Adoption and Implementation; BIM Expertise and Training; BIM Barriers and Challenges; BIM Benefits and Outcomes

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