

The Need for Implementing Building Information Modelling (BIM) and Integrated Project Delivery (IPD) in the Construction Project: A Case Study in UAE

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Abstract : Much of the waste that is generated throughout the life-cycle of a building is mainly related to project stakeholders not having access to information that others have created. This results in waste and high costs. Over the past decade, however, the industry reacted to these challenges by adopting effective procurement approaches, such as partnering and design and build, to improve collaboration and communication among projects' stakeholders. Most recently, there is a focus on creating and reusing digital project information of stakeholders throughout the life-cycle to facilitate the exchange of information among partners. This shift is based around BIM (Building Information Modelling) and collaborative environment (IPD). The power of collaborative BIM goes beyond improving efficiency. Sustainability, perhaps the most important challenge for the design and construction community, is at the intersection of BIM and collaborative project delivery, drawing strength from both. Due to these benefits, a research study has been carried out to investigate the need of BIM and IPD, on a large scale construction project which is procured on a traditional approach, i.e. design-bid-build. A qualitative research work including a semi-structured interview with project partners was conducted on a typical project in the UAE, whereby the selected project suffered from severe delays and cost overrun. This paper aims to bring about clear evidence to what most likely to happen to a typical construction project in spite of employing very good consultants, project manager and contractors and how these problems could have been avoided if BIM and IPD were deployed.

Keywords : building information modelling (BIM), integrated project delivery (IPD), collaborative environment, case study

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