Transformation from 2D structural drawing to building information model: Perspectives from a small-scaled company

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Abstract. Building information modelling (BIM) is one of the revolutions in construction industry. BIM is one of the long-waiting solutions for construction industry in order to solve the arisen quality and effectiveness problems. Many researchers have proved the benefits gained from BIM. In this paper, the structural package available in BIM platform is summarized and its maturity is discussed. The BIM projects in Malaysia are listed and it showed a low local BIM implementation. In the perspectives of engineers, migrating from 2D drawing to building information model is discussed with the faced problems and challenges. The technical supports such as internet supports, cloud system and etc. was lacked for small-scaled companies; and self-transformation plan is not available which is believed to minimize the lost during transformation. From structural engineers' perspective, a better visualization with building information models is critical to address these major problems occurred throughout the migration. However, more time are expected to be consumed in producing the models as it was found that there is a low level of model sharing between engineers and architects. Although the BIM implementation in Malaysia is still in a low level, it is advised that industry players and government should work together to migrating from traditional method to BIM environment.

1. Introduction

Building information modelling (BIM) comes across to minimize the problems which may potentially arise during construction, and reduce the cost through virtual construction during planning stage in architecture, engineering and construction (AEC) industry. As the virtual model is completely developed, this building information model has accurate geometries and applicable input data for design, quantity, fabrication and construction activities in order to make it tangibly exists [1].