

Development of BIM performance measurement system for architectural design firms

Jihye Shin, Jungsik Choi and Inhan Kim

Kyung Hee University

{shj9025, junsikchoi, inkim}@khu.ac.kr

Abstract. Despite the effort of Korean government to vitalize BIM adoption in AEC industry, the domestic adoption of BIM is still in its initial step. Particular in design field where medium and small firms being the majority, shows lower level of BIM adoption. The primary reason for this can be considered as lacking of necessities caused by uncertain benefits of BIM. Therefore, it is time to develop the objectives, quantifiable and qualitative measurement system of BIM performances. The purpose of this study is to suggest the BIM Performance Measurement System for architectural design firms. In achieving this, the authors have developed Balanced Scorecard (BSC) and validated its appropriateness by questionnaire survey with experts and performing statistical analysis. This development can be contributed to the voluntary BIM adoption by visualizing the detailed benefit of BIM and to the improvement of enterprise competitiveness by facilitating management of design process and estimating future outcome.

Keywords: Building Information Modeling (BIM), BIM adoption, BIM benefit, Performance Measurement System (PMS), Balanced Scorecard (BSC), Critical Success Factors (CSF), Key Performance Indicators (KPI).