<Option 2>

Importance analysis of BIM utilization by construction management companies

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Abstract: As the construction industry has recently transitioned to smart construction, the importance of project management using Building Information Modeling(BIM) is increasing. BIM and Construction Management(CM) share integrated management of various information that may arise in a project, allowing BIM to be utilized in various ways in CM. In this study, an Analytic Hierarchy Process(AHP) survey was conducted targeting BIM users at CM companies. The items of the AHP survey were divided into company-level factors and project-stage factors of BIM to measure utilization. This study analyzes the importance of BIM utilization factors used by CM companies through an AHP survey of BIM users and identifies the current status of the most utilized BIM. As a result of the AHP survey of company-level factors, the BIM application project showed the highest importance for BIM activation in CM. Furthermore, as a result of the AHP survey of factors by project stage, constructability review, interference review, and design change management showed the highest importance in that order. This implies that for BIM to be activated, CM companies need to increase the number of BIM-applied projects. Additionally, besides the factors most commonly used in current practice, there is a need to examine whether there are fewer factors utilizing BIM in a variety of applications. This study is expected to contribute to the activation and introduction of BIM in future construction project management.

Key words: BIM, Construction Management, Construction Management Company, Level of BIM Utilization, Analytic Hierarchy Process

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