

**COMPARATIVE ANALYSIS OF COST ESTIMATION USING CUBICOST
SOFTWARE AND CONVENTIONAL METHODS IN A BUILDING
CONSTRUCTION PROJECT IN BANDUNG CITY**

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ABSTRACT

Cost estimation is a crucial aspect of construction project management that significantly influences project success. Conventional methods, which are still widely used, have several limitations, including a high risk of calculation errors, data inconsistencies, and time-consuming processes. This study aims to analyze the comparison of project cost estimation between conventional methods and the Building Information Modeling (BIM) approach using Cubicost TAS and TRB software. The object of this research is a six-story building construction project located in Bandung City. The research method involves 3D modeling (BIM 3D) to automatically generate work quantities, followed by the implementation of BIM 5D to estimate costs based on quantity take-off (QTO). The BIM-based cost estimation results are then compared with the conventional Bill of Quantities (RAB). The findings are expected to reveal differences in cost values, as well as improvements in accuracy, time efficiency, and ease of calculation. BIM implementation demonstrates advantages in speed, precision, and data integration compared to manual methods. Therefore, BIM can serve as an innovative solution to improve the quality of construction cost planning and support digital transformation in the construction industry.

Keyword : Cost Estimation, BIM, Cubicost, Bill of Quantities, Construction Project

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