ABSTRACT

Office Fit-Out work usually is completed in the last phase of a building project before it is ready for occupancy. An important element of Office Fit-out work is; 1. Function 2. Convenience 3. Elements of Company identity and reputation. To achieve this company's reputation the cost of office fit-out work becomes unlimited.

Generating BoQ require a Quantity Take-Off process, manual quantity take-off will need a long time, low of accuracy and cause of cost overrun average 11%. *Quantity take-off automatically using BIM based Quantity take off is a solution for costing activities.*

This study uses the Relative Important Index to find the main factors that influence the BIM Quantity Take-Off process with the results of 10 main factors consist of 1. Drawing, 2. BoQ 3. Work & material specification, 4. Operator Experiences, 5. BIM Modeling 5D, 6. Individual Selection Model, 7. Quantity Take-Off, 8. Calculation Process, 9 Cost database, 10. Operator education

Bim based Quantity Take-off was applied to the Fit Out Office Project and succeeded in increasing efficiency by 6.18% compared to manual calculations.

KEYWORDS : Office Fit-Out;BIM based Quantity Take Off

ABSTRAK

Pekerjaan *Fit-Out* kantor dikerjakan pada fase terakhir dari sebuah proyek bangunan sebelum siap dihuni. Unsur penting dari pekerjaan *Fit-out* Kantor adalah; 1. Fungsi 2. Kenyamanan 3. Unsur Identitas dan reputasi perusahaan. Untuk pencapaian reputasi perusahaan ini biaya pekerjaan *fit-out* kantor menjadi *unlimited*.

Untuk membuat *BoQ* memerlukan proses *Quantity Take-Off* jika dilakukan secara manual akan membutuhkan waktu lima kali lebih lama, berakurasi rendah dan menimbulkan *cost overrun* rata rata sebesar 11% , Peneliti memilih menggunakan *BIM based Quantity take-off BIM* untuk mengatasi permasalahan ini.

Penelitian ini menggunakan alat statistik *Relative Important Index (RII)* untuk menemukan faktor faktor utama yang mempengaruhi proses penerapan *BIM based Quantity Take-Off* dengan hasil 10 faktor utama yakni: 1. Gambar, 2 *BoQ*, 3 RKS & Spesifikasi, 4 Pengalaman *Operator*, 5 Permodelan *BIM 5D*, 6. Seleksi *Individual model*, *7. Quantity Take-Off*, 8. Proses Kalkulasi, *9. Cost database, 10.* Pendidikan *operator*

Bim based Quantity Take-off ini diterapkan pada Proyek *Fit-Out kantor* pada material lantai, dinding dan plafond, dan berhasil meningkatkan efisiensi sebesar 6,18% dibandingkan dengan perhitungan manual.

KEYWORDS : *Fit-Out* Bangunan Kantor; *BIM* berbasis *Quantity Take-Off*