

INTISARI

YUSUF ARIFIN HIA, 2021, *Pengaruh Implementasi Building Information Modeling pada Critical Success Factor bagi Penyedia Jasa Konstruksi di Indonesia*. (dibimbing oleh Ir. Bambang Herumanta, MT.)

Building Information Modeling (BIM) merupakan salah satu perkembangan terkini dalam industri *architecture, engineering, and construction* (AEC) sebagai terobosan besar dalam pemodelan bangunan menggunakan teknologi digital. Tujuan proyek akhir ini untuk mengetahui pengaruh implementasi BIM, faktor terkait implementasi BIM, Rintangan atau hambatan, baik secara parsial maupun simultan terhadap *critical success factor* pada proyek berbasis *Building Information Modeling* (BIM).

Responden penelitian ini adalah 20 orang pekerja kontraktor dan konsultan konstruksi yang mewakili 12 perusahaan konstruksi di Indonesia dengan pengalaman menggunakan aplikasi berbasis *Building Information Modeling* (BIM). Metode yang digunakan berupa penelitian kuantitatif dengan menggunakan analisis deskriptif dan statistik. Analisis statistik yang digunakan adalah uji regresi linear berganda melalui aplikasi SPSS 25.0.

Hasil perhitungan analisis didapatkan bahwa : (a) keuntungan mengadopsi BIM memiliki pengaruh positif dan signifikan terhadap *critical success factor*, (b) faktor terkait adopsi BIM memiliki pengaruh positif dan signifikan terhadap *critical success factor* (c) rintangan atau hambatan tidak memiliki pengaruh negatif terhadap *critical success factor*, (d) secara simultan terdapat pengaruh keuntungan mengadopsi BIM, faktor terkait adopsi BIM, rintangan atau hambatan terhadap *critical success factor* pada proyek berbasis *Building Information Modeling* (BIM).

Kata Kunci: *Building Information Modeling* (BIM); regresi linear berganda; *critical success factor*; kuesioner

ABSTRACT

YUSUF ARIFIN HIA, 2021, *The Effect of Building Information Modeling Implementation on Critical Success Factors for Construction Service Providers in Indonesia*. (supervised by Ir. Bambang Herumanta, MT.)

Building Information Modeling (BIM) is one of the most exciting recent advances in the field of architecture, engineering and construction (AEC), which is a significant advance in digital technology for virtual building modeling. The aim of this final project is to evaluate the impact of the benefits of BIM adoption, BIM adoption factors, challenges and barriers, both partially and simultaneously on critical success factors in Building Information Modeling (BIM) based projects.

Respondents of this study were 20 contractors and construction consultants representing 12 construction companies in Indonesia with experience using Building Information Modeling (BIM) based applications. The method used is in the form of quantitative research using descriptive and statistical analysis. The statistical analysis used was multiple linear regression through the SPSS 25.0 application.

The results of the analysis showed that: (a) the advantages of adopting BIM have a positive and significant effect on critical success factors, (b) factors related to BIM adoption have a positive and significant effect on critical success factors (c) challenges and obstacles do not have a negative effect on critical success factor, (d) simultaneously there is an effect of the advantages of adopting BIM, factors related to BIM adoption, challenges and obstacles to critical success factors in Building Information Modeling (BIM) based projects.

Keywords: Building Information Modeling (BIM); multiple linear regression; critical success factor; questionnaire