INTISARI

MODEL EVALUASI EX-POST INVESTASI TEKNOLOGI INFORMASI PEMERINTAH MENGGUNAKAN *FUZZY ANALYTIC HIERARCHY PROCESS* DAN *STRUCTURAL EQUATION MODELING* (Studi Kasus Pada Kementerian Keuangan RI)

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Model evaluasi *ex-post* investasi TI pemerintah yang ada saat ini sebagian besar menggunakan pengukuran finansial, belum mengukur bobot manfaat yang tercipta dari sebuah investasi TI, mengukur tingkat kesuksesan, mengukur capaian tujuan, mengukur faktor-faktor pendukung keberhasilan investasi TI serta mengakomodasi bobot kepentingan kriteria pengukuran. Penelitian ini bertujuan mengembangkan model evaluasi *ex-post* investasi TI pada organisasi Pemerintah.

Model yang diusulkan meliputi pengukuran capaian manfaat yang tercipta dari investasi TI, pengukuran kesuksesan investasi, pengukuran tingkat capaian tujuan, dan analisis tingkat kepentingan-kinerja dari investasi TI. Identifikasi manfaat dan nilainya menggunakan *template* manfaat bisnis generik TI dengan pembobotan *Fuzzy* AHP (FAHP). Kesuksesan investasi diukur dengan lima kriteria kesuksesan dari OECD dengan pembobotan FAHP. Sedangkan capaian tujuan diukur berdasarkan daftar tujuan investasi ditetapkan. Analisis tingkat kepentingan-kinerja dilakukan untuk memperoleh rekomendasi agar organisasi dapat meningkatkan keberhasilan investasi TI. Nilai tingkat kepentingan diperoleh dengan analisis *Structural Equation Modeling* (SEM). Sementara nilai kinerja diperoleh dari penilaian manfaat, kesuksesan, dan capaian tujuan investasi. Selanjutnya nilai kinerja dibandingkan dengan nilai tingkat kepentingan menggunakan *Importance-Performance Analysis* (IPA).

Model evaluasi telah diujicoba untuk menilai beberapa investasi TI pada Kementerian Keuangan Republik Indonesia. Pengujian dengan SEM, diperoleh hasil sebagai berikut: kesuksesan manajemen proyek berpengaruh signifikan terhadap kepuasan pengguna, kesuksesan manajemen proyek berpengaruh signifikan terhadap kesuksesan produk, dan kesuksesan produk berpengaruh tidak signifikan terhadap kepuasan pengguna. Sedangkan hasil dari ujicoba model, diperoleh bahwa model evaluasi dapat: mengetahui manfaat investasi TI dan menghitung nilainya; mengukur tingkat kesuksesan investasi TI; mengakomodir preferensi organisasi dalam penilaian investasi TI; dan dapat mengetahui faktor-faktor yang mendukung investasi TI beserta kinerjanya. Dapat disimpulkan bahwa model usulan telah memenuhi tujuan penelitian yaitu untuk menilai investasi TI Pemerintah yang telah berjalan.

Kata kunci: Evaluasi, Investasi TI, Fuzzy AHP, SEM, Analisis IPA, Organisasi Pemerintah, Kementerian Keuangan.

ABSTRACT

EX-POST EVALUATION MODEL ON GOVERNMENT INFORMATION TECHNOLOGY INVESTMENT USING FUZZY ANALYTIC HIERARCHY PROCESS AND STRUCTURAL EQUATION MODELING (Case Study in the Ministry of Finance of The Republic of Indonesia)

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The current ex-post evaluation model of government IT investment mostly uses financial measurements and has not yet measured the weight of benefits created from an IT investment, measures the level of success, measures the achievement of goals, measures the factors supporting the success of IT investments and accommodates the weight of the importance of criteria measurement. This research aims to develop an existing (Ex-Post) IT investment evaluation model in Government organizations.

The proposed model consists of measuring the achievement of benefits created from IT investments, measuring the success of investments, measuring the level of goal achievement, and analyzing the level of importance-performance of IT investments. The benefits were identified by the generic IT business value template, which were weighted using Fuzzy AHP (FAHP). The investment success level was measured by the five criteria of the OECD which was weighted using FAHP. While the objectives' achievements were assessed based on a list of investment set that was provided. The Importance-Performance analysis was carried out to obtain recommendations for the organizations. The score of importance was obtained by conducting Structural Equation Modeling (SEM) analysis. While the score of performance was obtained from the assessment of benefits, success, and achievement of investment objectives.

The proposed model has been used to assess several IT investments in the Ministry of Finance of the Republic of Indonesia. Using SEM analysis, the following results were obtained: project management success has a significant effect on user satisfaction, project management success has a significant effect on product success, and product success has no significant effect on user satisfaction. From the results of this assessment, the evaluation model were able to found out the benefits of IT investment and calculated its value. Furthermore, this model could assess the IT investment success level, accommodate organizational preferences in its evaluation process, determine the supporting factors, and also assess the performance. In conclusion, the proposed model met the research objective, which is to assess the Government's existing IT investment.

Keywords: *Evaluation, IT Investment, Fuzzy AHP, SEM, IPA Analysis, Government Organization, Ministry of Finance.*