ABSTRAK

Teknologi informasi (TI) sudah mengambil peran dalam berbagai aspek kehidupan seperti pendidikan, perekonomian, kesehatan, dan tidak terkecuali instansi pemerintahan. Dalam memenuhi kebutuhan administrasi publik tersebut, pemerintah Kota Yogyakarta melalui Dinas Komunikasi, Informasi, dan Persandian (Diskominfosan) menerapkan Sistem Pemerintahan Berbasis Elektronik (SPBE) yaitu menyediakan aplikasi *Jogja Smart Service* (JSS) sesuai Peraturan Presiden Nomor 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik (SPBE). SPBE diperlukan untuk mewujudkan tata kelola pemerintahan yang transparan, bersih, efektif, dan akuntabel serta menyediakan pelayanan publik yang terpercaya dan berkualitas. Dalam mencapai tujuan tersebut, organisasi tidak terlepas dari munculnya risiko, sehingga perlu dilakukan identifikasi manajemen risiko untuk mengantisipasi kerugian baik dari aspek finansial maupun operasional.

Penelitian ini bertujuan untuk mengoptimalkan pemanfaatan TI, meminimalisir risiko TI, dan mencapai visi Diskominfosan dengan melakukan evaluasi manajemen risiko TI sesuai kerangka kerja COBIT 5 *for Risk*. Dalam penelitian ini, evaluasi berfokus pada domain EDM03(*Ensure Risk Optimisation*)) dan APO12(*Manage Risk*). Evaluasi dilakukan melalui serangkaian tahapan, yaitu analisis *capability level*, analisis *gap,* dan *risk assessment.*

Hasil penelitian ini menunjukkan bahwa nilai capability level/tingkat kapabilitas manajemen risiko TI Diskominfosan pada domain EDM03 level 0 dengan persentase 23,5% (partially achieved) dan domain APO12 pada level 0 dengan persentase 19,7% (partially achieved). Dengan hasil analisis gap/kesenjangan tingkat kapabilitas manajemen risiko TI Diskominfosan menunjukkan bahwa terdapat gap sebesar 1 tingkat dengan target level 1, untuk mencapai level 1 terdapat beberapa rekomendasi yang harus diimplementasikan. Dan hasil penilaian risiko diantaranya ditemukan 30 risiko dengan 13 kategori risiko (program/proyek manajemen siklus hidup, keahlian dan keterampilan TI, operasi staf, informasi, infrastruktur, perangkat lunak, pemasok, kepatuhan, kepatuhan terhadap peraturan, geopolitik, malware, serangan logis, tindakan alam, dan inovasi) yang telah diidentifikasi dan dipetakan sesuai respon yang tepat. Temuan risiko terbagi diantaranya 5 risiko dengan level sedang dan 25 risiko level rendah. Prioritas risiko berfokus pada risiko dengan level sedang yang menghasilkan rekomendasi *risk management plan* sesuai *best practice* COBIT 5 *for Risk* yaitu 5 rekomendasi kebijakan.

ABSTRACT

Information technology (IT) has played a role in various aspects of life such as education, economy, health, and government agencies are no exception. In meeting the needs of public administration, the Yogyakarta City government through the Office of Communication, Information and Encryption (Diskominfosan) implements an Electronic-Based Government System (SPBE), namely providing the Jogja Smart Service (JSS) application in accordance with Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems. (SPBE). SPBE is needed to realize transparent, clean, effective, and accountable governance as well as to provide trusted and quality public services. In achieving this goal, the organization cannot be separated from the emergence of risk, so it is necessary to identify risk management to anticipate losses from both financial and operational aspects.

This study aims to optimize IT utilization, minimize IT risk, and achieve the vision of Diskominfosan by evaluating IT risk management according to the COBIT 5 for Risk framework. In this study, the evaluation focuses on the EDM03 (*Ensure Risk Optimization*) and APO12 (*Manage Risk*) domains. Evaluation is carried out through several stages, namely capability level analysis, gap analysis, and risk assessment.

The results of the evaluation, indicate that the value of Diskominfosan's IT risk management capability level in the EDM03 domain is at level 0 with a percentage of 23.5% (partially achieved) and the APO12 domain is at level 0 with a percentage of 19.7% (partially achieved). With the results of the analysis of the gap in the level of IT risk management capability of Diskominfosan, it shows that there is a gap of 1 level with a target of level 1, to reach level 1 there are several recommendations that must be implemented. And the results of the risk assessment included 30 risks with 13 risk categories (program/project life cycle management, IT skills and expertise, staff operations, information, infrastructure, software, suppliers, compliance, regulatory compliance, geopolitics, malware, logical attacks, natural actions, and innovations) which have been identified and mapped according to appropriate responses. The risk findings are divided into 5 risks with a moderate level and 25 risks with a low level. Risk priority focuses on moderate-level risk which results in a risk management plan recommendation in accordance with COBIT 5 for Risk best practice, namely 5 policy recommendations.