ABSTRACT

The development of information technology in University has a positive impact on the delivery of information and services in University. Utilization of information technology in University should be supported by the IT Governance. IT Governance ensure an effective and efficient measurement for improved business processes through the linking structure of IT processes, IT resources and information to the organization's strategic goals.

IT Telkom is one of the University that has a strategic step "Strengthening Quality Assurance System with Implementation IT Governance accordance with Good University Governance Principles" to realize good information technology and IT Governance. In fact, implementation of IT Governance is not easy. Based on the observations have made, found some basic issues about IT Governance and measuring the performance of the information technology in the IT Telkom such as lack of understanding of IT-related risks, the lack of responsibility for IT risk management and the absence of performance measurement maturity levels of IT processes.

To solve those problems, digitalisation information technology audit program based on risk using COBIT 4.1 framework is needed to assist the management of information technology in IT Telkom. The digitalisation is built with Java EE technology to support multi-tier architecture consisting of four tier namely client, presentation, business logic and database. While the systems development method used is iterative and incremental

The results of the development of this digitalisasion can simplify IT Telkom to do activities risk-based audit of information system that consist of risk assessment, pre-audit, field working and reporting

Keywords: IT Governance, audit simulation, risk-based digitalisasion, Java EE technology, iterative and incremental, multitier