

Abstract

Information security cannot only be focused on information security tools or technology, but it is necessary for every organization to have an understanding of what must be protected and to determine precisely the solutions that can address the problem of information security needs. PT Matahari Department Store is the largest retail company in Indonesia which has a vision of becoming the most successful fashion and lifestyle center in Indonesia. In response to this, it is necessary to improve along with technological advances that continue to increase. In carrying out its business processes, the company uses the ASEAN Corporate Governance Scorecard (ACGS) guidelines which focus on business areas in general. However, these guidelines do not have a focus on information security risks. Therefore, to anticipate the impact of risks that occur on information assets in the company, the framework that will be used is OCTAVE Allegro. The purpose of this study is to carry out the stages of the information security risk analysis process in accordance with the OCTAVE Allegro framework, to know the risk mitigation process and to provide control recommendations for risk assessment using ISO 27002:2013 guidelines.

Based on the research results, it can be seen that the number of identified risks is 23 areas with the highest score being found in several risks, namely misuse of user access, loss of data due to virus attacks, and dissemination of information data with each value being 43. The results of the analysis show that 15 risk will be mitigated (mitigate), 4 risks will be deferred (defer), and 4 risks will be accepted (accept). Then the control recommendations given based on the people aspect are training for employees and giving strict sanctions to employees. The process aspect focuses on information security violation policies, access control policies and data back-up policies. As well as on the technology aspect, the emphasis is on providing passwords for network security, system maintenance and the use of antivirus on each device.

Keywords: Risk, Information Security, Information Assets, OCTAVE Allegro, ISO 27002:2013