Analisis dan Penilaian Risiko dalam Melindungi Data Perusahaan pada Homedisk Berdasarkan ISO 27001:2022 di Departemen Manajemen Informasi Sistem PT. Xyz

Natasya Shabrina¹, Oktavia Ayu Permata², Mastuty Ayu Ningtyas³ ^{1,2,3}Fakultas Informatika, Universitas Telkom, Surabaya ¹natasyas@students.telkomuniversity.ac.id,²oktapermata@telkomuniversity.ac.id, ³mastutyayu@telkomuniversity.ac.id

Abstract

PT. Xyz is a prominent enterprise in the crude oil processing industry. Its operations include the biggest palm oil plantations globally, oilseed relining, cooking oil production, consumer cooking oil processing and packaging, oilseed milling, oleochemicals, fats, and biodiesel. The company faces significant challenges in information system security, including user errors or oversights that result in the loss of critical information, insufficient routine system monitoring, and data integrity issues susceptible to unwanted manipulation. and data integrity issues susceptible to unwanted manipulation. To address these challenges, the failure mode and effect analysis (FMEA) method is employed to assess information security risks and determine the Risk Priority Number (RPN). This study utilizes the ISO/IEC 27001:2022 standard, which requirements for organizing information security that are adjusted to the needs. The risk identification process revealed 11 risks: 3 high risks, 2 medium risks, and 6 low risks. Priority is given to addressing the high-risk areas to ensure the company's information security is robust and resilient against potential threats.

Keywords: FMEA, Information Security, ISO/IEC 27001:2022, Risk Management

