ABSTRACT

Information technology risk management is a process of identifying threats to reduce threats and vulnerabilities of information technology that impact the confidentiality, integrity and availability of data. The formulation of the issues raised is how the assessment measures to determine the threat level and how the design of mitigation efforts to provide treatment of high-value risks.

Reference theory used based on a collection of literature studies and other sources related to the topic of research discussed. The methodology used in this study is FMEA (Failure Mode and Effect Analysis) method. This method aims to assess the severity category of each risk. Each value of each category is calculated and returns an RPN value which is the value derived from the multiplication of the impact value multiplied by the possible value multiplied by the detection value. This study uses the FMEA framework which contains a list of assets, failure modes, effects, severity categories and controls conducted today. The mechanism of this study is by collecting data, identifying risks, assessing risks, prioritizing risk and carrying out risk treatment.

The results of this study show a picture of risk based on the severity of critical assets owned. Control recommendations used to perform mitigation are expected to have a good impact on lowering the potential value of failure. This research provides benefits to measure the value of each potential failure mode in the *fulfillment* process of Indihome services at PT. Telkom Indonesia Tbk and suggestions to provide action in dealing with these risks. From this can be obtained the results of a risk management document and its implementation to be applied in the future.

Keywords - Risk management, critical assets, FMEA, risk assessment, failure mode, RPN