

## **ABSTRACT**

Regional Telkomsel 1 which consists of 2 provinces, namely North Sumatra and Aceh, has a very large number of network element. With human resources amounting to far less than the number of network elements, a reliable information system is needed to monitor all network elements. The current information system is the system provided by HQ. lack of monitoring features provided by HQ makes the region create an information system, namely Cacti as a monitoring tool. In the process of developing and using Cacti for more than 1 year, there are several problems experienced by engineers of regional Telkomsel 1, which are related to the information presented, data accuracy, and so on.

This study examines the effectiveness of the use of Cacti network monitoring tools for planning, operation, maintenance and troubleshooting at Regional 1 PT Telkomsel by using DeLone and McLean (2003) model. This research will prove the influence of information quality, system quality, and service quality from Cacti to user satisfaction variable. Furthermore, this study will also test the effect of user satisfaction on the net benefits obtained.

Variable intention to use and use of Delone and McLean Model (2003) were issued because Cacti monitoring tools are mandatory in Telkomsel ICT Regional Sumbagut. the type of research is a kind of conclusive research with Telkomsel ICT Regional Telkomsel Sumbagut population of 60 people who have access (authorization) to monitoring tools Cacti. Questionnaires were distributed to the entire population of 60 people. Data analysis technique using multivariate dependent based on variance based matrix Structural Equation Modeling (VB-SEM) with PLS (Partial Least Square) as the software used.

The results showed the variable Quality System, Kualitas Information give effect to User Satisfaction of 86.4%. User Satisfaction from Cacti gives Influence on net benefits sebesar 59.9%, while the quality of information is not proven empirically give a significant influence on User Satisfaction.

***Keywords:*** *Information systems, monitoring tools, DeLone and McLean Information Systems Success Model (D & M IS Success Model), Cacti*