

## **ABSTRACT**

### **ANALYSIS BUSINESS PLANNING IMPLEMENTATION RFID TECHNOLOGY FOR ELECTRONIC TOLL COLLECTION (ETC)**

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Implementation of Radio Frequency Identification technology (RFID) system for Electronic Toll Collection (ETC) has been operated by several countries to assist the smooth highway access. The use of this technology in the ETC system can accelerate the process at the toll booth transaction made during this manually. Existing systems during this often causes long traffic jam on the highway, but the most basic needs of highway users is smooth highway access, not only smooth along the way but also smoothness and ease when carrying out transactions at the toll booth.

Electronic Toll Collection (ETC) implement the payment system of toll roads automatically using the 3 components of Automated Vehicle Identification (AVI), Automated Vehicle Classification (AVC), Transaction Processing and Violation Enforcement System (Ves). One of the technologies used in Electronic Toll Collection is RFID. This system has advantages compared to a smart card or other card because of the nature of RFID has the ability to spread the identity of each vehicle that is more easily and automatically read by a reader (RFID card reader). With its automatic reading of identity cards is the RFID system was expected to accelerate the process of payment transactions on the highway.

To determine the feasibility of a business plan for the implementation of RFID technology, Electronic Toll Collection system (ETC) on toll roads, there is need for an analysis of business planning. Analysis of this business plan are made by reviewing only a few important aspects of business planning, namely technological aspects and financial aspects. Other aspects such as environmental aspects of industry, marketing aspects, regulatory aspects and aspects of human resources was not discussed because the coverage is fairly extensive discussion. In this planning analysis to determine the feasibility of implementing the system using the data of PT Jasa Marga in 2005 until the year 2008.

From the results of analysis of financial and technological aspects can be concluded that the application of RFID technology in Electronic Toll Collection system (ETC) applicable to the highway system is managed by PT. Jasa Marga and the toll road operator in terms of other aspects of technological and financial aspects. This technology is a business opportunity is quite promising. To further improve the profitability of this business, it is advisable to establish cooperation between toll road operators and service providers of RFID in Indonesia

**KEYWORD** : ETC, RFID, Business, Implementasion, Highway