

ABSTRACT

Canteen's transaction system transformation is the policy of Household Units in order to improve quality of canteen facility and earn profit by converting the system from making contracts with the tenants into sharing system. But when the implementation have been proceeding, many obstacles occurred. These constraints are difficult to control if not aided by a computerized system that required a solution that can solve the existing problems. This final project aims to find solutions to overcome the obstacles faced by Koperasi Citra and to develop smart card technology in campus as a useful transaction instrument.

Development of student card function is fulfilled to help overcome these constraints. In order for that to happen, then it should be a student smart card with RFID technology. Student smart card functions can be expanded, not only just a student identity card but it can also be used as a practical instrument of payment transactions in the food court of Telkom Engineering School. A qualitative survey of 55 Telkom Engineering School students stated the function needs to be added as a replacement manual payment at small amount called micropayment system.

Hevner Framework is a framework that focuses on Design Science Research (DSR). DSR is research that creates and evaluates IT artifact to solve the problem faced by organization. DSR seeks to produce innovations that define ideas, technical skills, management, design, implementation, and analysis of the products generated through the use of information systems in order to operate effectively and efficiently (Hevner et.al , 2004) . The outputs of the framework are constructs, models, methods, and instantiations.

Hevner Framework is used as stages to make a model and method of micropayment system using smart card. The model and the method will be a guide for the implementation planning design of micropayment system using smart card at Telkom Engineering School food court.

A model is developed by describing the constructs needed to be a real-world representation of the needs's guide and linkages between constructs. The method is designed using BPMN to explain the stages of the business process.

The model will be examined by the method of observation of structured interviews with respondents who have a relationship with micropayment system based smart card. Evaluation will determine the need for defining constructs and construct as well as the emergence of a new sub-constructs that can change the model .

Keywords: Hevner, Design Science Research (DSR), micropayment system based smart card model, student smart card, RFID