

Optimization Accounting Management Efforts through Design Information System at PT. Rajawali Nusindo Bandung

Ulfah Winduasih and Riske Faldesiani

*Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No. 229 Bandung 40154 Jawa Barat - Indonesia
{ulfahw, riskefaldesiani}@student.upi.edu*

Keywords: Accounting Information System, SDLC, Waterfall, UML.

Abstract: Good accounting management is one of the areas of activities that must be undertaken by PT. Rajawali Nusindo Bandung. This research aims to optimize existing business processes in the accounting unit which is assisted with modelling of information systems. This study uses an applied research methodology with SDLC or System Development Life Cycle design methods and using waterfall paradigm. While the tools that are used in the design UML or Unified Modelling Language, which consists of five design diagrams are: use cases, class diagrams, activity diagrams, state diagrams, and sequence diagrams. Next step is designing process of information display system. Then for the architectural design of information systems that is client-server architecture. The last stage is the evaluation through the design of demonstrating and conducting interviews to companies using the technique through a formal review. Based on the analysis of the information system components in the company, it is produced a draft management information system of accounting management which has the function which the process of estimates making, procurement activity, filling of a transaction, verification process, the decision of acceptance or rejection, and payment. Using information system of accounting management can ease accounting transaction process in PT. Rajawali Nusindo Bandung.

1 INTRODUCTION

Along with the rapid development of information technology, encouraged the emergence of new ideas. The system that initially runs manually is slowly getting shifted. During the early stage of IT acquisition, managing IT activities relating to operation, programming, and data collection were the major areas of concern. In later stages the focus was on establishing a unit to look after various types of applications over an extended lifecycle, despite change in technology. Simultaneously, emphasis to involve users developed not because of business priorities, but to enable easy use of applications computerized (Misra, 2017). Technology is now a must, especially in an organization. System principles information within an organization is use of information systems on an organization that aims to add value for the organization greatly influenced by organizational structure, culture and changes (Stair and Reynolds, 2013).

Information continues to flow and the number increases with the number of requests, as well as the growing number of data. In addition, the use of a database within a company was more and especially with the network system. The database can be distributed from one computer to another. The number of user flows has increased with the size of the company. Companies need information systems to collect, process and store data and distribute information. Utilization of information technology by the organization or company broadly aims to facilitate the implementation of business processes and improve competitive ability. The process of building software computers and information systems have always been determined by the development methodology different. A software development methodology refers to framework used to plan, manage, and control the process development of information systems (Baxter and Ian, 2013). Through information technology, it is expected that the company's business processes can be implemented more easily, quickly, efficiently and

effectively. The use of network technology within an organization or company becomes commonplace.

In a company, well-recorded finance will result in a growing company. No exception PT Rajawali Nusindo Branch Bandung is a pharmaceuticals distribution company that has a lot of financial transactions every day, especially this company has had many business partners. Currently, PT Rajawali Nusindo still using manual systems for the management of accounting transactions, so that the business process is running slow and still use a lot of papers and documents to matching accounting codes.

Therefore, conducted a study to analyze the needs of users to optimize the accounting management system. From the background, it can be formulated as follows:

1. How is the accounting management system currently run by PT. Rajawali Nusindo Bandung?
2. What is the weakness of the accounting management system currently in use?
3. How to design an accounting management system that meets the needs of users??

1.1 Information Systems

Information systems, which are work systems whose processes and activities are totally devoted to processing information through activities that include capturing, transmitting, storing, retrieving, deleting, manipulating, and displaying information (Alter, 2008).

The accounting information system is a collection of resources such as human and tools for designing and transform financial data into information that will affect the decision-making (Kendall and Julie, 2010). Information resources have gradually become a most important strategic resource of enterprises. The operation of enterprise accounting information system has significant influence on enterprise performance. Descriptions of accounting information system are mainly realized through the establishment of corresponding metadata (Meng, 2014).

1.2 System Development Life Cycle (SDLC) Waterfall

System development life cycle or SDLC is a methodology for designing, constructing, and maintaining information and system processes. There are a lot of SDLC model, one of which is the model Waterfall consisting of five stages for sequentially completed in order to develop device

solutions software (Bassil, 2012). Software development life cycle (SDLC), is a structure imposed on the development of a software product. It is often considered as a subset of system development life cycle. There are several models for such processes, each describing approaches to a variety of activities that take place during the process (SVITS, 2012).

Waterfall is a model development of the underlying system or early for the development model other systems (Khurana and Sachin, 2012). The waterfall model is also called linear sequential or classical lifestyle. This method provides a sequence of software lifecycle sequentially starting from analysis, design, coding, testing, and maintenance phase.

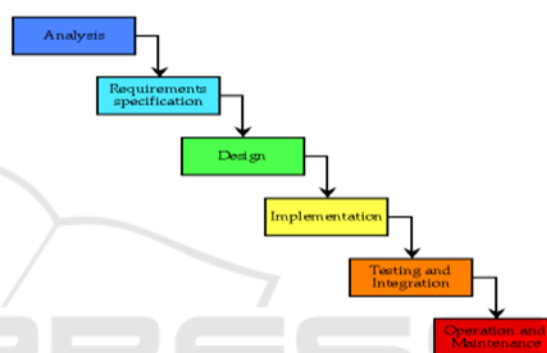


Figure 1: Software lifecycle.

1.3 Unified Modelling Language (UML)

Unified Modeling Language or UML is one of the object-based modeling. UML equipment is standardized as a tool for document analysis and design of software systems. UML is used for a software design and has various diagrams (Kaur and Rajeev, 2012). UML is considered an industry standard modeling language with a rich graphical notation, and comprehensive set of diagrams and elements. It is used to specify, visualize, modify, construct and document the artifacts of an object oriented software-intensive system under development (Lee, 2012).

2 METHODOLOGIES

This research method is research qualitative and applied research. Where the data obtained based on observation and interview, and also concerned with practical realities, namely the application and

development of knowledge generated by basic research in real life. Basic research functions to generate knowledge to find solutions to common problems, whereas applied research serves to find solutions to problems in a particular field. The undertaken development method is by SDLC waterfall method model. Stages in the method waterfall model is analysis, design, implementation, testing, and maintenance (Bassil, 2012).

3 RESULTS

3.1 User Requirement Analysis

Based on the results of interviews and observations, can know the process of expenditure and cash receipts in Accounting Division that runs today by using workflows along with flow map of each process. Workflow is a flow of all tasks performed in a business process, while flow map is a data flow diagram of documents or forms that circulate or flow in a manual business process. This diagram serves to determine the relationship between entities through documents flowing from a source until the document is received by the recipient of the document. Here is the workflow in the process of cash and bank transactions on the Accounting Division:

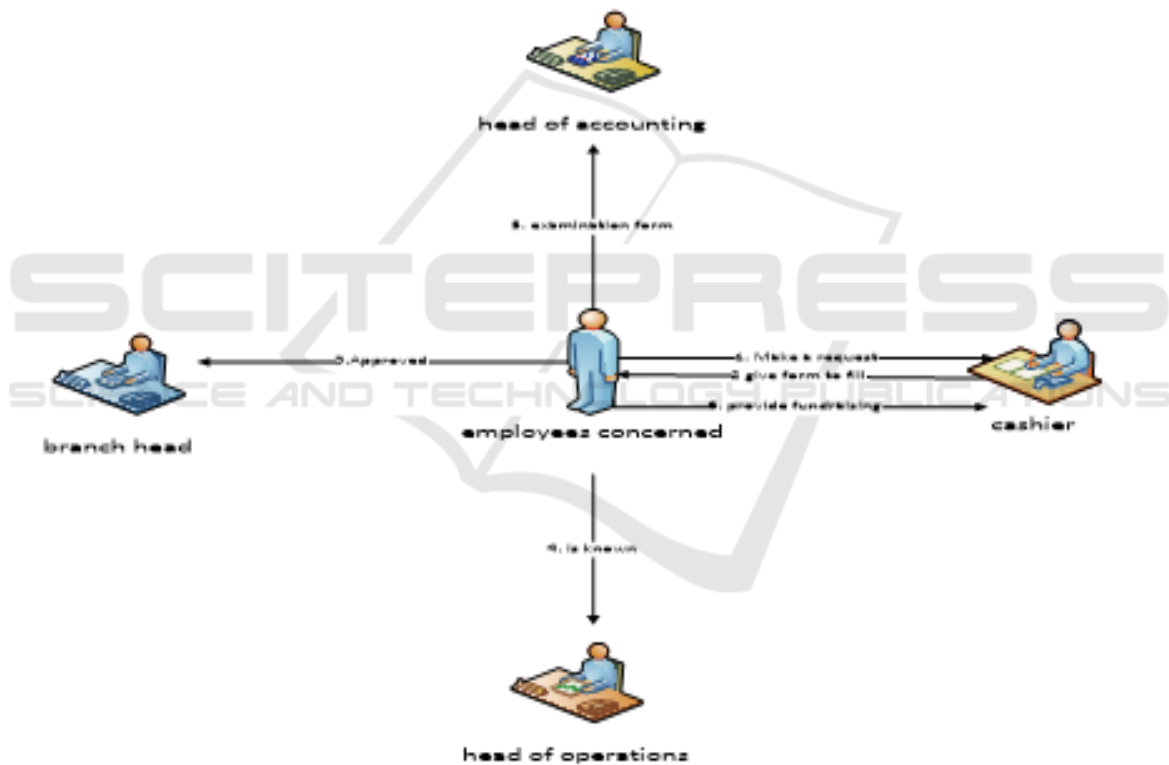


Figure 2: Process of cash and bank transactions on the Accounting Division.

The whole process of accounting transaction management is still using manual method causing some problems that are:

1. The business process runs less quickly because it requires a lot of manual approval
2. Form cannot be accessed easily anywhere and anytime

3. Many use the paper to form so that a full accounting of employees working desk with stacks of papers (*paperless*)

While the result of user requirement analysis in accounting transaction management system that is as follows:

1. This system is designed to handle accounting information management system
2. The system is running in a *web-based*

3. This system is the first process *Login*, which serves to get into the system
4. This system helps in the process of filing, verifying, and approving transactions

3.2 Information System Design

Picture this *use case* diagram can be seen in the picture below:

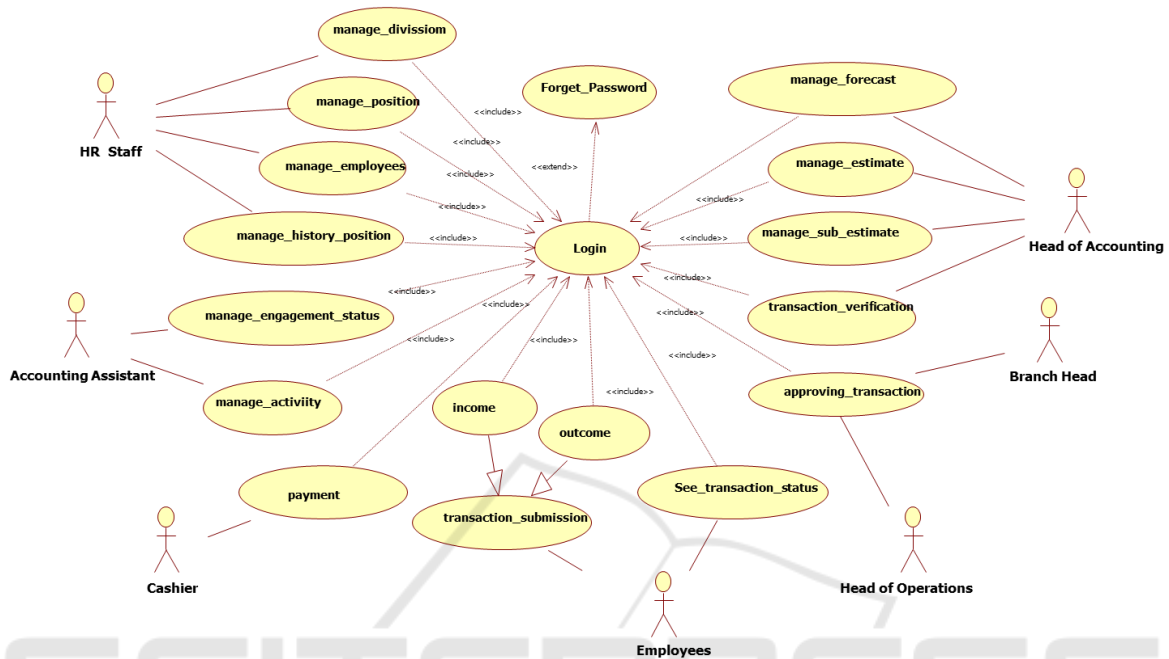
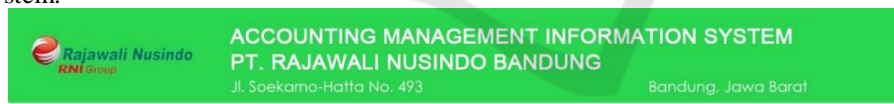


Figure 3: Use case diagram accounting information systems management transaction.

From the picture above can be seen the actors and their functions. In addition to the use case, there is class diagram that shows inter-class relationships and detailed explanations of each class in the design model of a system.

The multiple interfaces that describe the accounting management information system of PT Rajawali Nusindo Branch Bandung.



LOGIN

Username

Password

[Forget Password?](#)

Figure 4: Interface login.

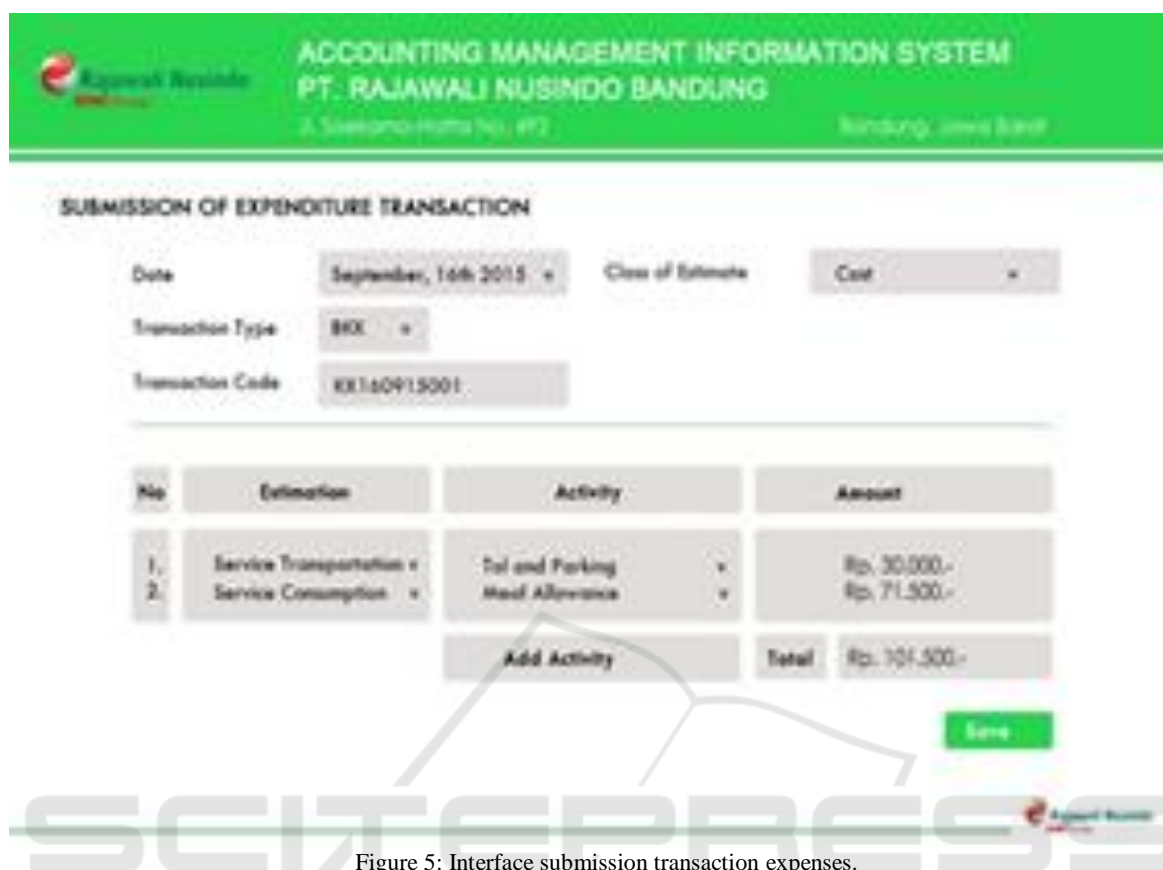


Figure 5: Interface submission transaction expenses.

4 CONCLUSIONS

From this research can be drawn a conclusion that the process of managing the current accounting transactions is still done manually. In addition, there are processes that do not yet use an integrated system with accounting processes such as the management of transactions that cause employees to wait long enough for transaction approval in order to make payments. The transaction processing activities that are still done manually will reduce the efficiency and effectiveness both in terms of time, effort and cost. Based on the research that has been done, there are some weaknesses of the accounting process and processes related to the management of financial transactions are still done manually, among others, the documentation and storage is less good, difficulties in data retrieval, validation of the old transaction, and the payment process is less effective.

Management information system design of accounting transactions can be a solution in dealing with problems experienced in one accounting process is still done manually. This information

system design is based on user requirement analysis. This information system includes several functions such as employee management function, division management, managing positions, managing history positions, managing forecasts, managing forecasts, managing sub-estimates, submitting transactions, verifying transactions, approving, and payment transactions. This accounting information management system is a web-based application that uses PHP and HTML programming languages that can be accessed anywhere and anytime through the browser application.

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