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Database Management System on Raw Material Transaction System Case Study : Sabana Fried Chicken

Stephen Yonathan Sudiro[1], Irwan Suwandi[2], Leli Leiliawati[3], Septian Rheno Widianto[4]

[1,2,3,4] STMIK-LIKMI Bandung, Jl. Ir. H. Juanda No.96, Kota Bandung, Jawa Barat

E-mail: info@likmi.ac.id[1,2,3], septian.rheno@yahoo.de[4]

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ABSTRACT

Franchise business is a business which has high number of raw material transactions with more than 1300 partners number. Currently, the transaction logging is still done manually which relies on the conventional documents, therefore the overall transaction recording of raw materials in the form of database is really necessary to minimize the errors in terms of the data management. The database management system certainly holds an important role in this case. This system is able to provide assistance in solving problems, to speed up the transaction process of incoming and outgoing goods and also to produce report of raw materials in every distributor or every franchise partner.

1. Introduction

A franchise business is the owner of a trademark, trade name, trade secret, patent, or product (usually called a franchisor) that grants a license to another party (usually called a franchise) to sell or service a product under the franchisor's name. Franchises usually pay a kind of fee (royalty) to the franchisor for the activities they do [1]. Transaction is an economic / financial event that involves at least two parties in which both parties exchange, involve themselves in business agreements, borrow and borrow, and others based on their respective wishes or on the basis of applicable legal provisions [2]. Raw material is something that is used to make a finished product [3].

Database is a collection of files that are interconnected and organized or a collection of records that store data and relationships between them [4]. Database Management System is a software system that allows users to define, create, maintain and provide control access to the database [5].

In the franchise business, of course, it cannot be separated from transaction activities, especially in raw materials. Raw material transactions are important in running the business. Currently, because the data processing for recording raw material transactions still uses conventional documents, there are many problems that often occur related to the management of such large amounts of data. With the database management system created by the author using MYSQL. It aims to overcome existing problems and speed up the transaction process that is carried out to all franchise partners.

2. Research Methodology

A. Research Approach

This research approach is carried out using a qualitative approach, namely by looking at the object of study as a system. The object of study is seen as a unit consisting of the most related elements and describes the existing phenomena [6].System Development Life Cycle (SDLC) Model prototyping is a technique for gathering certain information about user's information needs quickly. Focuses on the presentation of aspects of the software that will be visible to customers or users. The prototype will be evaluated by the customer / user and used to filter software development needs.

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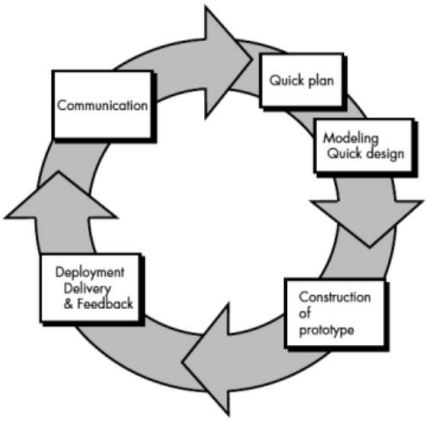

Fig 1. Prototype Model (pressman: 2010)

B. Object of Study

The object of study is the object of research or what is the point of attention [7]. The object of study in this research is a function or related part, the document used as a record of raw material transactions used in the Database Management System in the Raw Material Transaction Recording System.

C. Data Collection Techniques

1) Observation

In this method, it makes direct observations on activities related to transaction problems and reporting of raw materials. And from the results of these observations it can be seen that the process of transactions and reporting of raw materials on fried chicken savanna, and also can be seen of problems related to the system currently being implemented in the company.

2) Interview Method

The interview that was conducted was aimed at obtaining complete information, and to obtain this, the author conducted a question and answer method with Mr. Syamsalis as the owner, and Mr. Jaja as the Distributor Manager in the company, regarding all activities related to transactions and reporting of raw materials in savanna fried chicken.

3) Literature Review

Literature study is a data collection method by studying literature books and several journals or papers. The journals or books that researchers refer to are those related to the Database Management System in the Material Transaction Recording System.

4) Documentation

Documentation is looking for data about data or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, agendas, and so on (Arikunto, 2002: 206). Documentation study is intended to complement data from interviews and observations in the form of written notes and can be accounted for and become official evidence. The technique used to obtain data by taking or quoting an existing document or record that has been recommended is related to the Database Management System in the Partner's Raw Material Transaction Recording System. In this method, data is obtained in the form of documents used, for example the Partner Raw Material Sales Report (LPBBM), Distributor Monthly Reports (LBD), and Raw Material Daily Sales Invoice.

3. Results and Discussion

A. Purpose of the Raw Material Transaction System

The Raw Material Transaction System is a system that aims to record all raw material transactions, of course, make it easier to record in real time. Raw material stock, reports can be easily accessed because it is web-based.

B. Problems Before Using the Database Management System in the Raw Material Transaction System

The raw material transaction system which is still conventional with data management causes the transaction data, stock and reports to be not actual and not accountable because the data management still usesphysical documents, where the data is at high risk of being lost, damaged and difficult to manage (archiving).

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C. Design Software

Below is a non-functional requirement for the Raw Material Transaction System

Table 1
Non-Functional Requirements

No.	Non-Functional Requirements
1	The application is built based on the Web.
2	This application can only be used by users who have access rights based on their level of access (Administrator, Admin, Purchasing, Finance, Warehouse).
3	This application only records raw material stocks, raw material sales transactions, and reports.

Below is a functional requirement for the Raw Material Transaction System

Table2
Fungsional Requirements

No.	Functional Requirements
1	Applications can manage master data of raw materials, distributors, users, partners.
2	Applications can manage transaction data of raw material sales.
3	Aplikasi dapat mengelola data stok bahan baku di tiap distributor
4	The application can generate sales transaction reports of partners which can be exported in excel form.
5	The application can request raw materials to the distributor / central warehouse to be sent to the distributor who requests it

Below is the ERD of the Raw Material Transaction System:

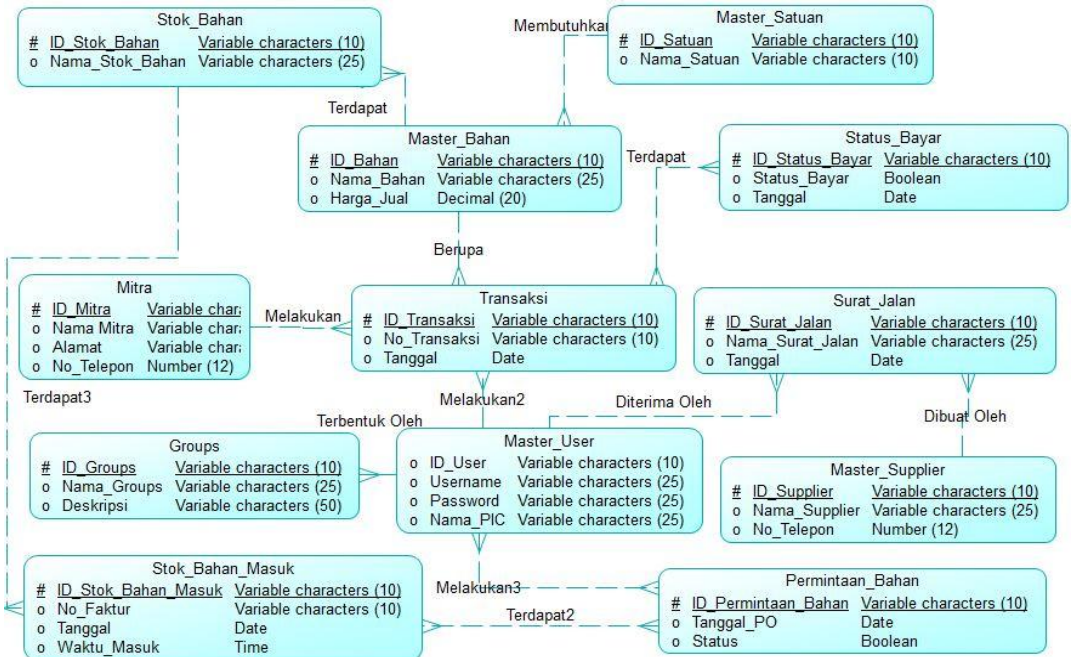

Fig 2. ERD Raw Material Transaction System

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Below is the Schematic Database of the Raw Material Transaction System:

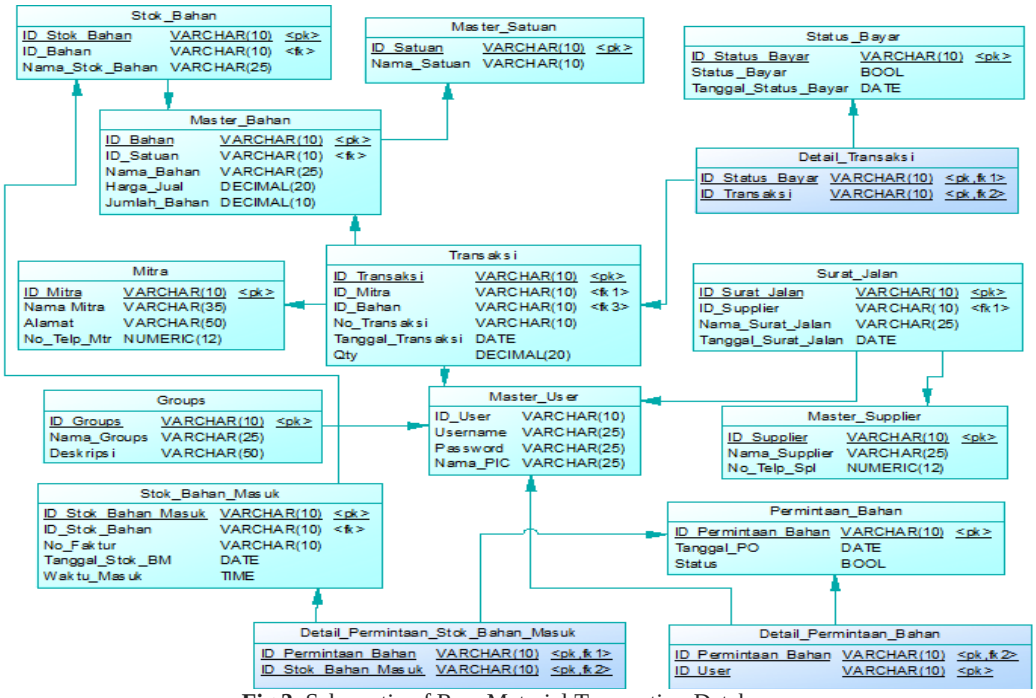

Fig 3. Schematic of Raw Material Transaction Database

Below is the software interface of the Raw Material Transaction System:

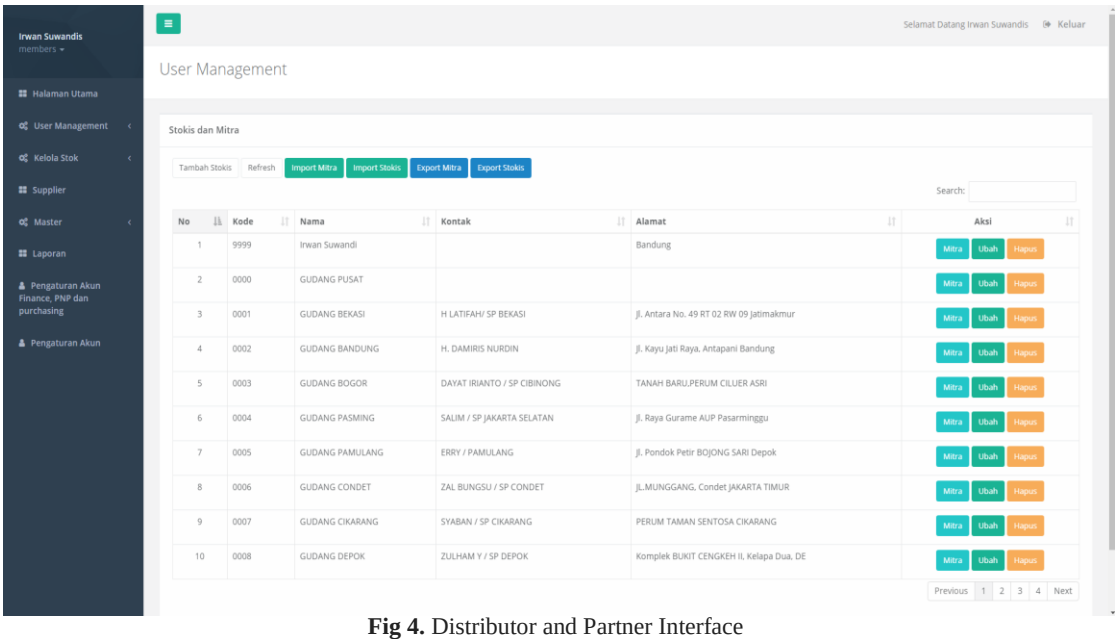

Fig 4. Distributor and Partner Interface

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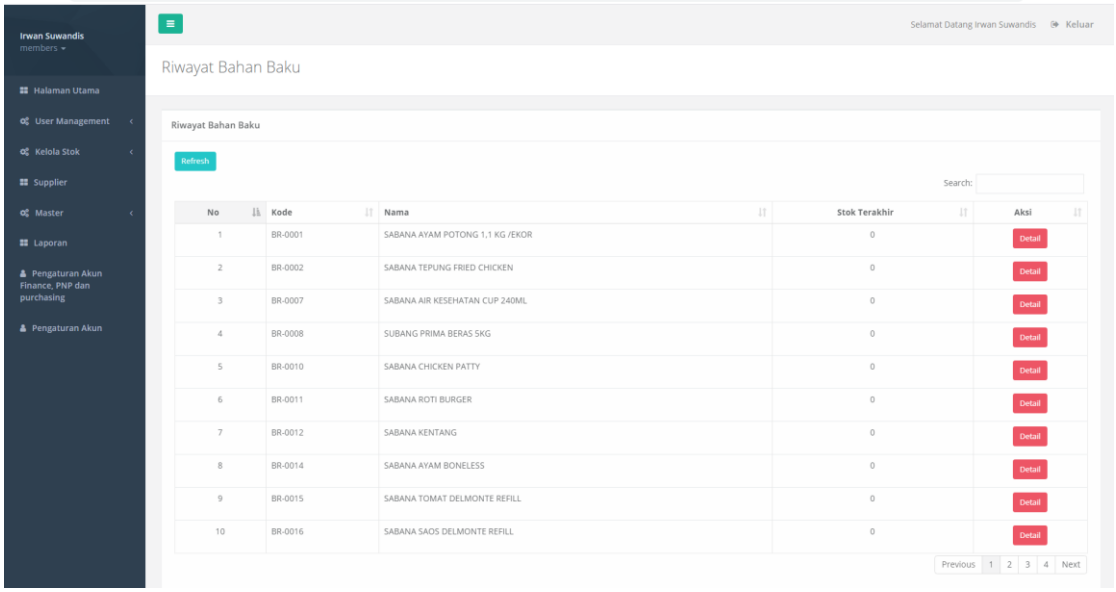

Fig 5. Interface of Raw Material Stock

4. Conclusions

Data Management in the Raw Material Transaction System Mitra Sabana Fried Chicken already uses Database Management System technology.The Database Management System can facilitate data management, searching for data and archiving data, maintaining data integrity and security.With the database management system in the raw material transaction system partners are able to make work easier and more efficient.

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