Sales and Purchase Accounting Information Systems In Trading Companies

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Abstract— Effective and efficient record of sales and purchase transactions are increasingly needed, especially in large transactions. This research is conducted at the "Toko Beras Dadar" in Peterongan Market. This shop still uses manual records. The difficult for manual record is to keep track of the existing stock of goods. This shop has not compiled trial balance and income statement according to standard. So, this problem must be solved with a website-based sales accounting information system. The program used are Laravel and MySQL. The results of technical testing show the system can run well and help the user to simplify transaction process.

Keywords— sales accounting information system, purchase, journal trial balance, income statement, Laravel, MySQL

I. INTRODUCTION

Effective and efficient record of sales and purchase are increasingly needed, especially in large transactions. According to Yulianton, Sutanto, and Mulyani; the use of information system is a method that can solve the problem. They use sales accounting information system for UMKM to solve the problem. [1]

This research will discuss about the sales record at "Toko Beras Dadar" in the Peterongan market. This shop doesn't have an information system that helps in finance record. The positive point for this shop is the employees are able to do manual record well. In this shop, the manual record often found some unreadable writing, that trigger some problems. The problems such as difficulties in tracking the existing stock of goods, difficulties in read the record, etc. Also, this shop has not compiled trial balance and income statement according to standard.

The purpose of this research is to solve the problem with a website-based sales accounting information system. The program used are Laravel and MySQL. The financial program created is expected to be easy to use. So, the users don't need to study deeply to run the program.

II. LITERATUR REVIEW
A. Accounting Information System

According to Samiaji (2009), an accounting information system is a system that records, stores, collects data which will processed further to produce information that will be used as basis information making. [2]

B. Sales and Purchase Transactions

The Indonesia Accounting Association has a definition about sales in PSAK no 23 in year 2010. Sales are devided into two: sales of goods and sales of services. Sales of goods is goods owned by the company for resale. Sales of services is the implementation of task for certain time in accordance with the agreement of both parties. [3]

C. Purchase Accounting

Purchasing is the activity of choosing the source of the goods or services to be sold, if the source is deemed to be in accordance with the wishes, it will be continued with an order until the goods or services are available. [4]

D. Journal

Journal is a record of every transaction that is done sequentially according to time of transaction occurs. The use of journal recording is to simplify the check process of

the effect of each transaction in the form of debits and credits. So, an understanding of the accounts in the financial statement is needed. [5]

E. Trial Balance

According to [6], trial balance as the sum of the debit and credit balances of each account. The amount between debits and credits on the trial balance must show the same amount, if there is a difference in the amount it can be said that there is an error in the recording.

F. Income Statement

Sepliana et al. (2016; 30) which defines the income statement as one of the financial statements that explain the company's success in running a business. The income statement is calculated by comparing the amount of income with expenses in a certain period. [7]

G. Application Development Tools

The system to be built will use the Laravel framework that supports the MVC (Model-View-Controller) module, so that the performance and documentation on the system created is complete. [8]

The use of MySQL database is because it supports various programming languages, and is an open-source database, so users can use it for free [9]. XAMPP needs to be used to run several modules on a web server such as PHP, and MySQL databases. XAMPP itself is software that can be used on various operating systems [10]

III. METHOD

The subject and object of this research is the "Toko Beras Dadar", and all things related to the recording system of buying and selling at the "Toko Beras Dadar", this includes the documents and records used by this rice shop.

Collecting data in this study by conducting documentation, observations, and interviews with users when the system has been used.

IV. RESULT AND DISCUSSION

The business process in this system starts with recording data on the store's goods, then the user will make purchases and sales transactions. The goods data after making the transaction will immediately record the

changes, and will automatically form daily and monthly journals, trial balances, and income statements.

A. App Design

Use case diagrams are used to determine user access rights on the system. In this system there are two access rights, namely owner/admin and cashier. The cashier is only able to access the login menu, item data, purchases and sales of goods, while the admin has all access.
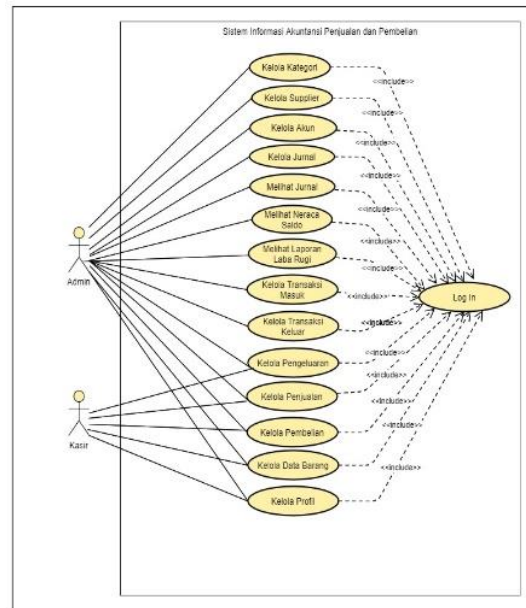

Figure 1 Use Case Diagram

ERD (Entity Relationship Diagram) design is used to determine the direction of data flow in the system to be created. The image below is an ERD design for this system.
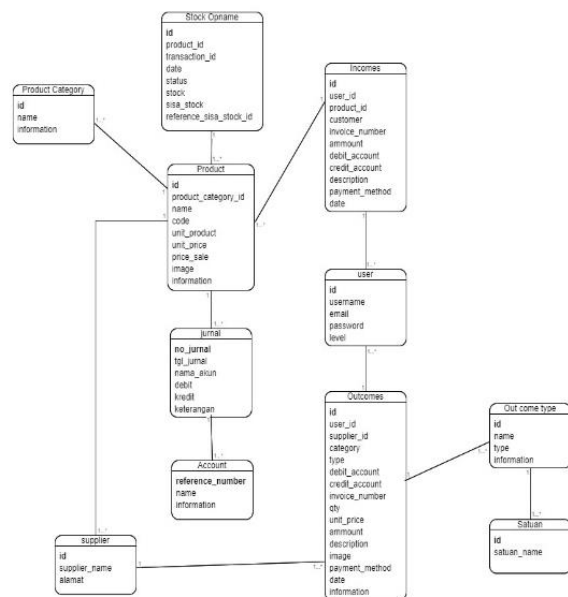

Figure 2 Entity Relationship Diagram

The design of the application that has been approved by the user will be continued with the creation of the application. Here is a view of the system that has been created:
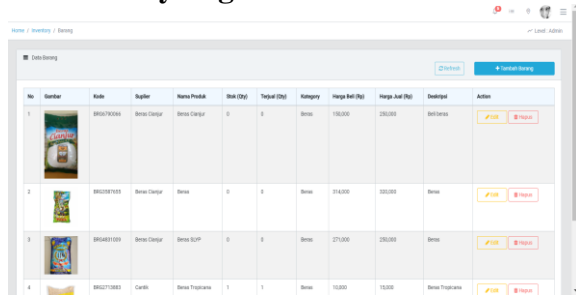
a. Inventory Page

Figure 3 Inventory Page

Figure 3 is a display of the data items used. This page also supports adding, changing, and deleting data features.
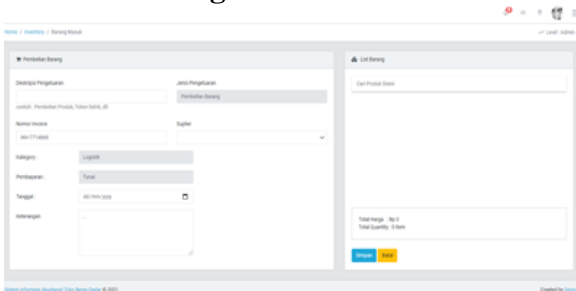
b. Purchase Page

Figure 4 Purchase Page

Figure 4 is a display of the purchase form. Each purchase transaction will have a different note number.
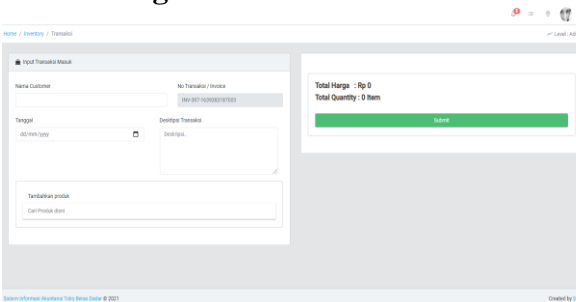
c. Sales Page

Figure 5 Sales Page

Figure 5 is a display of the sales form. Each sales transaction will have a different invoice number, and if the item being sold is not in stock, the system will reject the sale of the item.

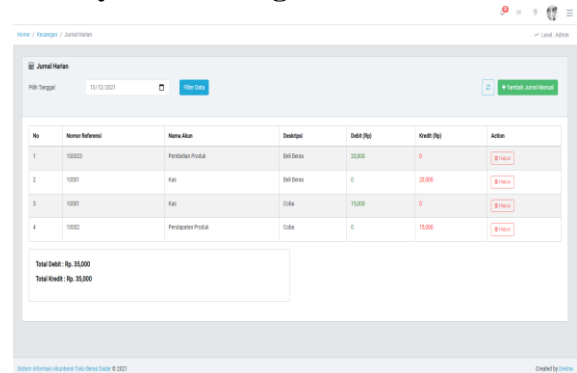**d. Daily Journal Page**

Figure 6 Daily Journal Page

Figure 6 is a display of the daily journal. The journal will be automatically formed when the user makes a transaction, but this page also supports the feature to add journals manually.
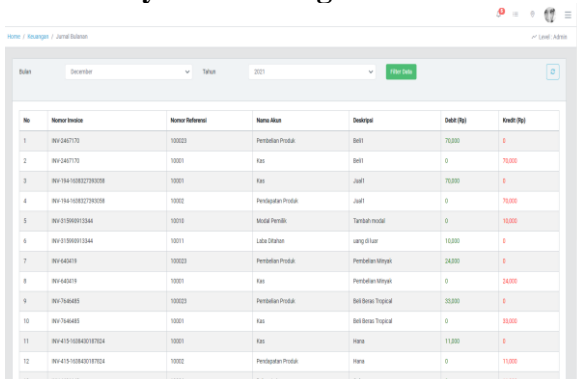
e. Monthly Journal Page

Figure 7 Monthly Journal Page

Figure 7 is a display of the monthly journal.

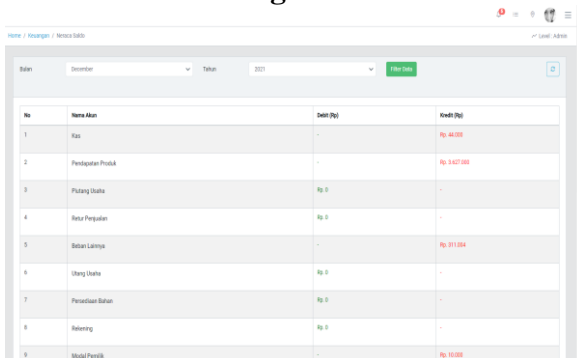**f. Trial Balance Page**

Figure 8 Trial Balance Page

Figure 8 is a display of the trial balance. The trial balance is obtained from the sum of each account contained in the journal.

g. Income Statement Page

Figure 9 Income Statement Page

Figure 9 is a display of the income statement, the period of which can be selected by the user.

B. Application Testing

Application testing aims to ensure that the application that has been made runs well. The application testing phase will be divided into 2 parts, namely technical application testing and interviews. Table 1 is the result of technical testing.

Table 1 Application Test Results

Modul	Test Type	Test result
Login	User login	System runs well
Dashboard	Displays total incoming transactions, total sales and expenses	System runs well
Inventory	Add item Edit item Delete item	System runs well
Purchase of goods	Fill in the purchase form	System runs well
Sales	Input incoming transaction	System runs well
Expenditure	Input outgoing transaction	System runs well
List of incoming transactions	View incoming transactions	System runs well
List of outgoing transaction	View outgoing transactions	System runs well
Account	Add account Delete account	System runs well
Trial balance	View trial balance by period	System runs well
Income statement	View the income statement by period	System runs well
Daily journal	Add daily journal Edit daily journal Delete daily journal	System runs well
Monthly journal	View monthly journal by period	System runs well
Unit	Add unit Delete unit	System runs well
Supplier	Add supplier Remove supplier	System runs well
Category	Add category Delete category	System runs well
Profile	View profile Log out	System runs well

The interview stage was conducted with the owner and 3 employees of the shop. Based on the results of the interview, it shows that the sales and purchase accounting information system can help users such as checking inventory, the process of recording sales and purchases becomes more concise. The system has also been tested directly by users, and they are quite satisfied with this system, although they found problems such as using a smartphone on this system which will make some menus invisible, and it takes time to add data, such as the need to scroll the screen. Overall, the system has been running well and in accordance with the wishes of the user.

The presence of this system creates additional costs such as the provision of internet networks and mini printers. The procurement of computer equipment is not a problem, because it is already available for this shop. Although initially the employees of this shop were still not used to using this system, the owner believed that this system

would help his shop in making buying and selling transactions.

IV. CONCLUSION

Based on research, application testing, and interview results, it can be concluded that:

Making a system at the "Toko Beras Dadar" based on the buying and selling process at the store, from the data obtained, designing the application using Use Case Diagrams, and Entity Relationship Diagrams, then continued with the design of the system display.

In general, the system has been running well, starting from the login process to the formation of an income statement. In addition, users have also tried the system directly, and found several obstacles such as the emergence of the burden of procuring a mini printer, and a system that does not support smartphones. Although there are problems, users are quite satisfied with this system because it can help the process of buying and selling transactions become more concise, and monitor the movement of goods.

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