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

Det	o Berang									Clicketh	+ Tambeh Barang
No	Gonber	Kade	Suplier	Nama Produk	Stak (Oty)	Terjual (Dg)	Kategory	Harga Beli (Rg)	Harga Jual (Rg)	Deskripsi	Action
1	edan)ur.	BR06730066	Beras Clarijar	Beras Cianjur	0	0	Bens	150,000	251,000	Belibeas	✓ cdt
2		8463587685	Beras Cianjar	Dense	0	٥	Denas	314,000	331,000	Denss	₽68 ∎Hepus
3		BR04831009	Beras Cianjur	Beras 30/P	0	٠	Bens	271,000	251,000	Beas	₽60 \$Hepus
		BRG2713883	Cartik	Dense Tropicana			Dens.	10,000	15.00	Dense Tropicana	Zott Bhom

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

e Perdalan Barang			& Littlering	
estripsi henpetuara		Janus Pergeluarun	Carl Produk Distri	
orbalt. Perciption P	talah Talam Jatrik, di	Periodae Sarang		
tomo Theorem		Tapler		
86/7714888			*	
olegay.	Logistik			
herdagean :	Tanai			
lenge#	400 met/2008			
tateran gan			Total marga : Ap-0 Total Quantity: 3 frem	

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

	5		. 9 = → ∰
e / Inventory / Transaksi			er Lavel : Adr
🗎 Inpot Transaksi Masuk			
Nama Customer	No Transikii / Invoice INV-3977-000983787003	Total Harga : Rp 0 Total Quantity : 0 Item	
langgal	Desktipsi Transaksi	Ster	*
dd/mm/yggy	beskipsi.		
Tambalikan produk			
Cari Produk disni			

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

lih Tenggi	13/12/2221	Titler Data				C + Tantiah Jurnel Hon
No	Noner Referensi	Nema Aiton	Desktipsi	Dabit (Rp)	Kredit (Fg)	Action
1	100823	Penthelian Produk	Bell Beras	20,000	0	@ Hipus
2	10001	Kao	Deli Deras	0	28,000	8 Hepus
3	10001	Tao -	Cobe	15,000	0	#Heps
4	10082	Pendapatan Produk	Cobe	0	15,000	# Hepus
	ebit: Rp. 35,000 Hedit : Rp. 35,000					

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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

· · e -

/ Keuen	gen / Jamai Bulanon					∼ Level: Ad
lulan	December	v Tahan	2021	v Her beta		٥
No	Nomor Invoice	Nomor Referensi	Nama Akun	Deskripsi	Debit (Rp)	Kredit (Rp)
1	NY-5467170	100023	Pembelian Produk	Bell1	70,000	1
2	WV-3467170	10001	Ras	Beill	0	70,000
3	NV-194-1028327283058	10001	68	Just	70,000	0
4	NV-194-1628327293058	10002	Pendapatan Produk	Just	0	70,000
5	INV-315990913344	10010	Modal Pemilik	Tambah modal	0	10,000
6	NV-315002013344	10011	Labe Ditahon	uang di luor	10,000	0
7	NV-640478	100023	Pembelan Produk	Pembelian Minyak	24,000	0
8	NV-643819	10001	Tas	Pembelian Minyak	0	24,000
9	NV-3545485	100023	Pembelian Produk	Bell Beras Tropical	35,000	0
10	NV-7546485	10001	Kas	Bell Beras Tropical	0	33,000
11	INV-4151608400187824	10001	Kas	Hana	11,000	0
12	NV-415-1008430187824	10002	Pendapatan Produk	Hana	0	11,000
13	NV.44011/1	1006	Reference	Colu		11.000

Figure 7 Monthly Journal Page

Figure 7 is a display of the monthly journal. **f. Trial Balance Page**

						🧶 = 🔹 🔞 =
/ Keyangan	/ Netaca Saldo					er Level: Admin
Balan	December	✓ Tahun	2021	v	Filer Data	٥
No.	Nama Akun			Debit (Rp)	Kredit (Rp)	
1	Kas				Pp. 44.008	
2	Pendapatan Produk				Pp. 3.627.000	
3	Platang Usaha			89.0		
4	Retur Penjusian			Rp. 0		
5	Beban Lainnya				Pp. 311.004	
6	Utang Usaha			Rp. 0		
7	Persediaan Bahan			Rp. 0		
8	Relening			Rg. 0		
9	Modul Pemilik				Pp. 10.008	

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	System				
	incoming	runs well				
	transactions,					
	total sales and					
	expenses					
Inventory	Add item	System				
-	Edit item	runs well				
	Delete item					
Purchase of	Fill in the	System				
goods	purchase form	runs well				
Sales	Input incoming	System				
	transaction	runs well				
Expenditure	Input outgoing	System				
	transaction	runs well				
List of	View incoming	System				
incoming	transactions	runs well				
transactions						
List of	View outgoing	System				
outgoing	transactions	runs well				
transaction						
Account	Add account	System				
	Delete account	runs well				

Table 1 Application Test Results

Trial	View trial	System
balance	balance by	runs well
	period	
Income	View the	System
statement	income	runs well
	statement by	
	period	
Daily	Add daily	System
journal	journal	runs well
	Edit daily	
	journal	
	Delete daily	
	journal	
Monthly	View monthly	System
journal	journal by	runs well
	period	
Unit	Add unit	System
	Delete unit	runs well
Supplier	Add supplier	System
	Remove	runs well
	supplier	
Category	Add category	System
<u> </u>	Delete	runs well
	category	
Profile	View profile	System
	Log out	runs well
	<u> </u>	

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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