



DESIGN OF CREDIT SALES ACCOUNTING INFORMATION SYSTEM IN PT SURYA BARUTAMA MANDIRI

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Abstract

This research was conducted to determine and analyze the ongoing credit sales as well as to design an accounting information system for credit sales at PT. Surya Barutama Mandiri. This research was directly conducted in the company in the form of procedures and credit sales documents. This design tool uses Data Flow Diagrams (DFD), Entity Relationship Diagrams (ERD), and Normalization. The next process is by designing a prototype database system, displaying a prototype database input and output system. Based on the results, the study found that the company's credit sales process has not used a computerized system that is recording, where the reports is still done manually. Another condition is that there are still multiple tasks and responsibilities in the related functions. These weaknesses can lead to fraud and manipulation of data possibly be done by employees. This research also resulted in a prototype of an accounting information system consisted of menus which include customer menus, product menus, stock menus, sales transaction menus, journal menus and report menus.

Keywords: Analysis, Design, Accounting Information Systems, Credit Sales



INTRODUCTION

In the current days, there is a very big change in business competition between companies, especially in the field of technology. Rapid technological development, has created competition between companies which become increasingly tense. For that the company must compete to obtain or provide information that is fast, accurate, timely and also the latest in order to run its business. Of all the information needed by the company management, accounting information is one of the important bases in making decisions on the allocation of company resources. To get precise and accurate information, we need a system that is made according to an integrated pattern in accordance with the conditions and needs of the company i their specific company activities. The system is a group of elements that are closely related to each other, which function together to achieve certain objectives. By switching from a manual system to a computerized system, the aim is to make information management faster, more precise, and accurate, and the process of recording transactions automatically in order to make it easier for companies to create decisions (Mulyadi, 2016).

An integrated information system is needed by the company, in order to produce accurate information to support the company's decision making, planning, and control by the management. The information system applied to record the accounting transaction process is called the accounting information system. Accounting information system is a collection of resources such as people and equipment, which are designed to convert financial data and other data into information (Bodnar and Hopwood, 2014). The accounting system in the company or organization includes an accounting system for cash receipts, an accounting system for cash expenses, a purchase accounting system, a sales accounting system, a payroll and wage accounting system, etc. One of the most important accounting systems in a company is the sales accounting system. Sales is the activity that is responsible of increasing and achieving the company's maximum profit. The main goal achieved by the establishment of the company is to raise the optimal profit for the sake of growth. From this sale, the company obtained profits that would be used to develop the company's operational activities. Higher amount of sales are considered as better in achieving maximum profits. The most important general factor in determining the survival of a company is sales, without sufficient sales the company will not achieve its main goal.

Therefore, companies need to establish and implement a sales accounting information system to regulate and control the company's business activity especially in sales procedures thus it can be a benchmark for reviewing company performance. Sales accounting information system is required to provide adequate evidence of recording and reporting of all company sales activities, thus it can be used as useful information for the purpose of management in

decision making. An effective and efficient sales accounting information system is expected to provide reliable information and a great quality information for those who need it, free from mistakes, and must have a clear intentions and objectives. In order to be able to produce information with these characteristics, the data processed in the sales accounting information system must be true and accurate data in order to produce reliable information. Sales accounting system created with the purpose to be able to control the sales activities. This is necessary because sales may often result in system errors or some level of deliberate fraud due to the weakness of the system itself.

PT. Surya Barutama Mandiri, a company engaged in manufacturing business, of creating towels and dyeing towels. The towels produced are then marketed to hotels, salons, hospitals and others. In addition to towels the company is also engaged in dyeing (coloring). PT Surya Barutama Mandiri does not yet have a system that handles credit sales transactions therefore it is still vulnerable to loss of data and sales transaction documents that are still less efficient and effective so as to produce inaccurate information, and in the case of credit sales procedures there are still multiple tasks in separate several parts. The impact of the above problems results in a complex accounting reporting that is will create difficulties in the evaluation of the current accounting transactions which affect the company's revenue or profit. This can be avoided by implementing a computerized credit sales system. With the computerized accounting records, errors in recording data manually can be minimized. With a computerized system that generates the data quickly and processed with high accuracy. Based on the background description above, this study discusses the design of accounting information systems for credit sales at PT Surya Barutama Mandiri.

The research Objectives In line with the formulation of the problems identified above, this research was conducted with the purpose of:

1. To obtain information and analyzing the current accounting information system for credit sales at PT. Surya Barutama Mandiri.
2. To design a credit sales accounting information system at PT. Surya Barutama Mandiri.

LITERATURE REVIEW

Accounting Information System

The definition of accounting information system is the organization of forms, records and reports coordinated in certain way as to provide financial information needed by management to manage the company (Mulyadi, 2016). Accounting Information System is a system framework formed from an entity that collects, records, stores, and processes data to produce information. This system includes people, procedures and instructions, data, software, information

technology infrastructure, as well as internal control and security measures (Romney and Steinbart, 2016). According to Krismiaji (2015) an accounting information system is a system that processes data and transactions to produce useful information for planning, controlling and operating a business.

Sales

Selling is an activity carried out by the seller/sales person in selling the goods or services with the purpose of obtaining profit from these transactions as well as sales can be interpreted as a transfer of ownership rights over the goods or services from the seller to the buyer, and then the buyer makes payment for the goods or services they receive by cash or credit (Mulyadi, 2016). Sales is a system of the company's main activities to sell and buy goods and services that the company produces. In the sales system there are two kinds of system, namely the cash sales system and the credit sales system (Sujarweni, 2015).

Sales Accounting Information System

Sales Accounting Information System is an information system that organizes a series of procedures, forms, records and reports and methods designed to produce, analyze, distribute and obtain information to support sales decision making. Sales accounting information system consists of cash and credit sales. The cash sales system is a sale carried out by a company that requires the buyer to pay the price of the goods before the goods are delivered, the goods are then handed over to the buyer and the cash sales transaction is recorded by the company. While credit sales system is a sale carried out by the company by sending prices according to the order received from the buyer and for a certain period of time the company will send invoices to the buyer (Mulyadi, 2016).

Internal Control System

Internal control system is a system created to provide security guarantees for the elements in the company. Internal control is expected to protect company assets from theft, embezzlement of money by employees, misuse of assets, or so on (Sujarwen, 2015). With the current situation internal control system is highly demanded for the survival of the company as a company has a different internal control system. The internal control system includes the organizational structure, methods and measures that are coordinated to maintain the organization's assets, and to check the accuracy and reliability of the data.

System Development

System development is a step that system analysts go through in order to develop information system. The system development process goes through several stages starting from the planning stage until the system is well operated and implemented (Mulyadi, 2016). System development is the process of developing a new system to replace the old system as a whole or to improve the existing system (Jogiyanto, 2013). System development can be presented in a certain kind of method, namely System Development Live Cycle (SDLC). The system development life cycle consists of system policy and planning, system analysis, system design in general, detailed system design, system selection, system implementation, and maintenance (Jogiyanto, 2013).

RESEARCH METHODS

Objectives

The object in this study is the credit sales accounting system at PT. Surya Barutama Mandiri which was founded in 1985. Located on Jl. Daan Mogot Km 12,9 No.66 Jakarta 11730. The company engaged in manufacturing business of towel and dyeing. The towels produced are marketed in hotels, salons, hospitals and others. In addition to producing towels the company is also engaged in dyeing (coloring) of yarns/threads, shoelaces and others. The manufacturing process begins with the dyeing stage which is the process of unloading the yarn and dyeing the yarn where the yarn is colored according to the customer's request. Then the winding stage is the stage where the colored yarn will be rolled up to be woven. Next is the weaving stage at this stage the colored yarns will be woven using a machine until the process is finished and the towel is ready to be given to the customer.

Research Samples

The sample in qualitative research consisted of informants such as managers or employees contained in the study such as the cashier, administration section, accounting section and the goods delivery section containing reports, forms, documents on credit sales. The sample in this study consisted of research samples because the purpose of qualitative research was to produce a theory.

Data Types and Sources

The type of data used in this study is qualitative data. Qualitative data obtained from documents in the form of organizational structure, job description (task description), systems and procedures of PT Surya Barutama Mandiri. The data sources used for this research are primary

data sources and secondary data. The primary data obtained directly with interviews at PT. Surya Barutama Mandiri in the form of an explanation regarding the credit sales accounting system. While the secondary data is obtained from the documentation of the credit sales accounting system at PT. Surya Barutama Mandiri.

Data collection technique

Data collection technique is a method applied to collect / obtain data for a study (Sugiyono, 2015). To obtain data and information needed, this research uses techniques that consist of:

1. Interview Method. In this study, the interviews are conducted with the company officials, especially with the departments related to the object of research, namely the credit sales accounting information system.
2. Documentation Method. In this method the author studies what documents are used in credit sales activities.
3. Observation Method. In this method the author observes credit sales activities.

Analysis and Design Tool

The analysis tool used by the author is a document flowchart using standard symbols to describe through the image of the transaction processing procedures of the company and the flow of data through the system. While in implementing system design tools, the author has created a Data Flow Diagram (DFD) that is used to describe the flow of data within the company, Entity Relationship Diagram (ERD) to describe the database design used in the company and normalization for the process of tables classification or relation, then a physical design which includes input design and output design on the prototype system.

RESULTS AND DISCUSSION

From the results of the study, the application of credit sales accounting information systems at PT. Surya Barutama Mandiri is still inaccurate, in terms of the relevant parts or functions, documents used and procedures applied. This happens because the company has not implemented the internal control system properly which is created to protect the company's from theft, embezzlement of money by employees, misuse of assets or others. To overcome these weaknesses, an analysis is carried out in order to improve the current system to be more effective and efficient, as follows:

1. At PT. Surya Barutama Mandiri an issued found which is , the existence of overlapping tasks in the cashier, namely as a department that handles sales activities, grants credit approval and receives payments from customers. From the results of the analysis, it is

suggested to add the task in the department of sales. The sales department is specifically responsible for handling the sales process. While the cashier is responsible for receiving payments from customers and authorizing credit approvals.

2. In the Goods Delivery Department there are multiple overlapping tasks of the department that should be separated from the function responsible for the physical storage of inventory, and the department that is responsible for shipping goods to the customer. From the results of the analysis it is suggested to add more department in the sales system of PT. Surya Barutama Mandiri, the warehouse responsible for storing goods, checking the quality of goods. Meanwhile, those in charge of delivery of goods to the customer by the goods delivery department
3. At PT. Surya Barutama Mandiri, the Sales Invoice and tax invoice documents are made by the cashier, which is more proper when made by the sales department. The Sales Invoice Document is made by the sales department after they had received a purchase order from the customer thus will not cause errors and misappropriation of funds.
4. At PT. Surya Barutama Mandiri the Invoice documents are made by the administration, although it is more proper when made by the cashier chart. Invoicing should be done by the finance department/function as they accepts payments from customers. Thus we suggest that the invoice is made by the cashier.
5. At PT. Surya Barutama Mandiri, there is no receivables record in the form of a subsidiary book to find the details of each debtor's receivables. The researcher proposes that a receivables card to be created to record the company's receivables mutations made by the accounting department.
6. At PT. Surya Barutama Mandiri, there is no Warehouse Card as data record on inventory or quantity stored. The author proposes to add accounting records, namely the Warehouse Card containing data on the quantity of inventory stored in the warehouse. This record has the function to record the mutation and inventory of goods stored in the warehouse.
7. At PT. Surya Barutama Mandiri, Microsoft Excel is still applied in conducting sales activities. The author proposes to use an authorized system between departments, Recording and reporting using a computerized system so that errors can be minimized.

The credit sales accounting information system procedures applied by PT. Surya Barutama Mandiri has not operate properly, there are still many weaknesses and shortcomings, namely there are double and overlapping tasks for the responsibilities of the cashier and the goods delivery department. From the results of the analysis, the authors propose a credit sales procedure implemented by PT. Surya Barutama Mandiri as follows:

a. The suggested/proposed Credit Sales System Flowchart

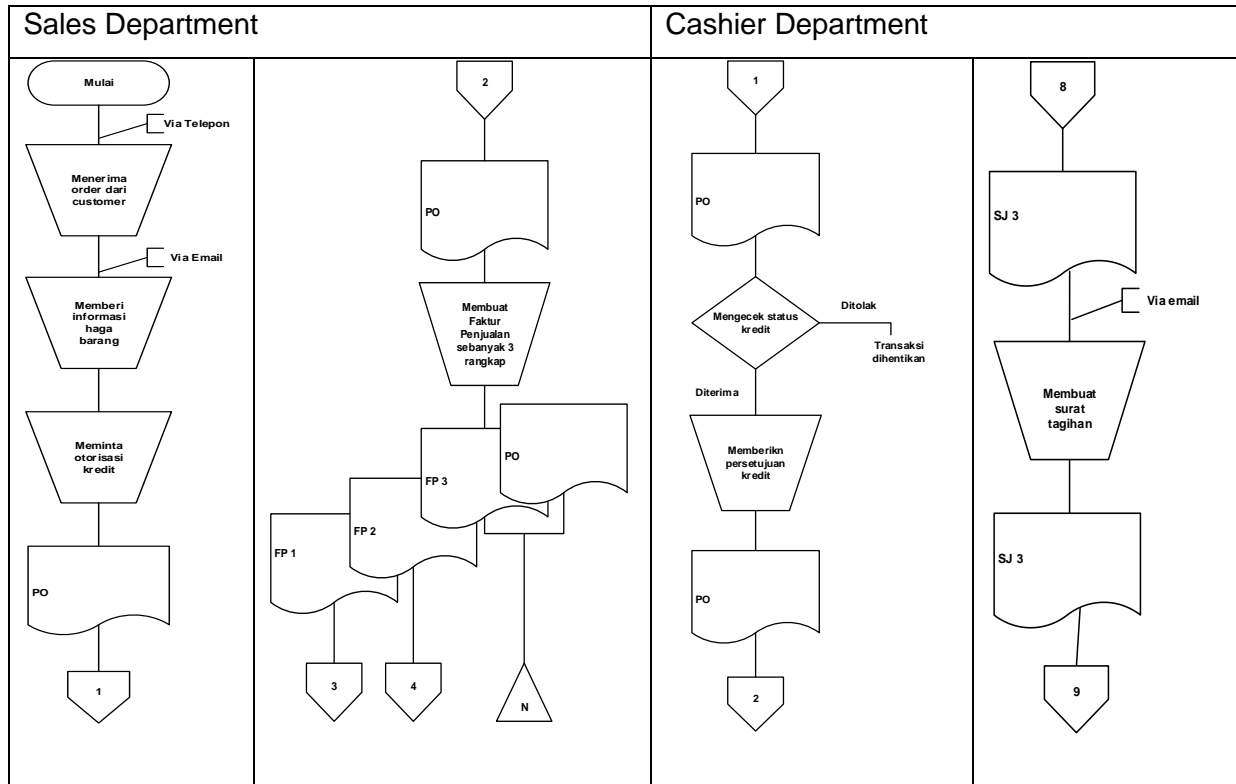


Figure 1. Flowchart of sales and cashiers

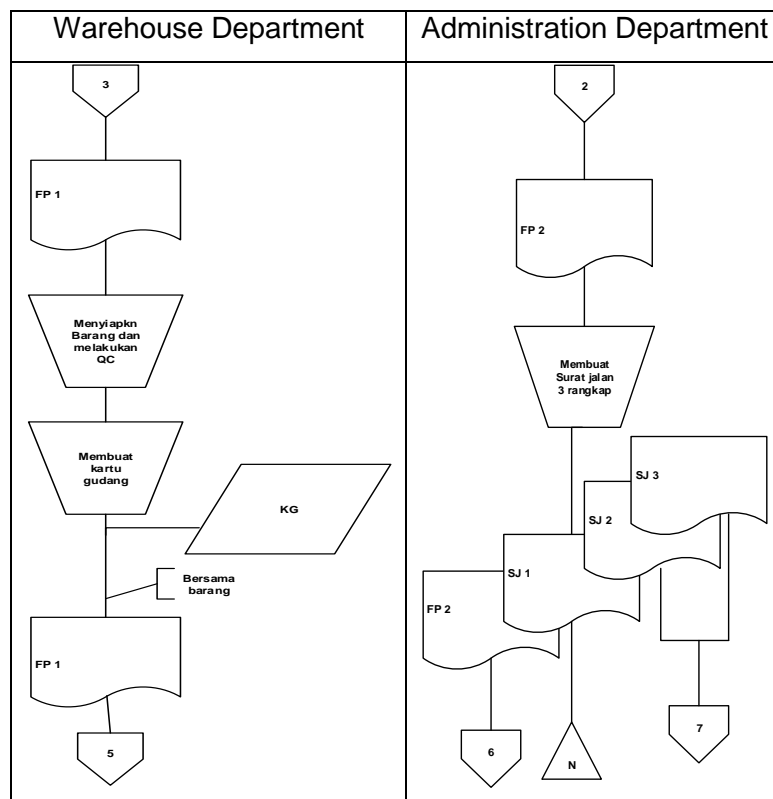


Figure 2. Flowchart of the warehouse department and administration

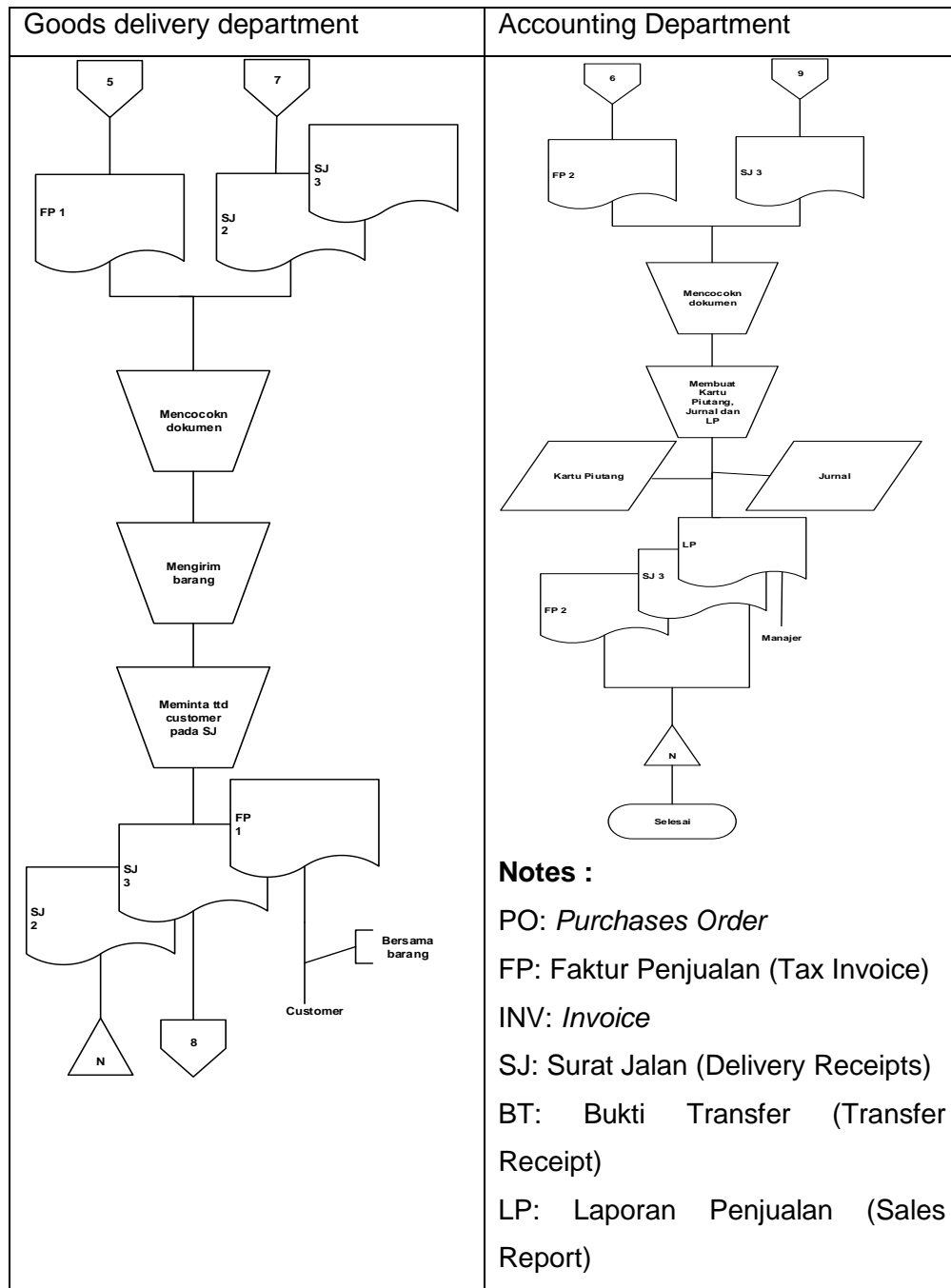


Figure 3. Flowchart of goods delivery and accounting department

b. Suggested Data Flow Diagram (DFD) of Credit Sales System

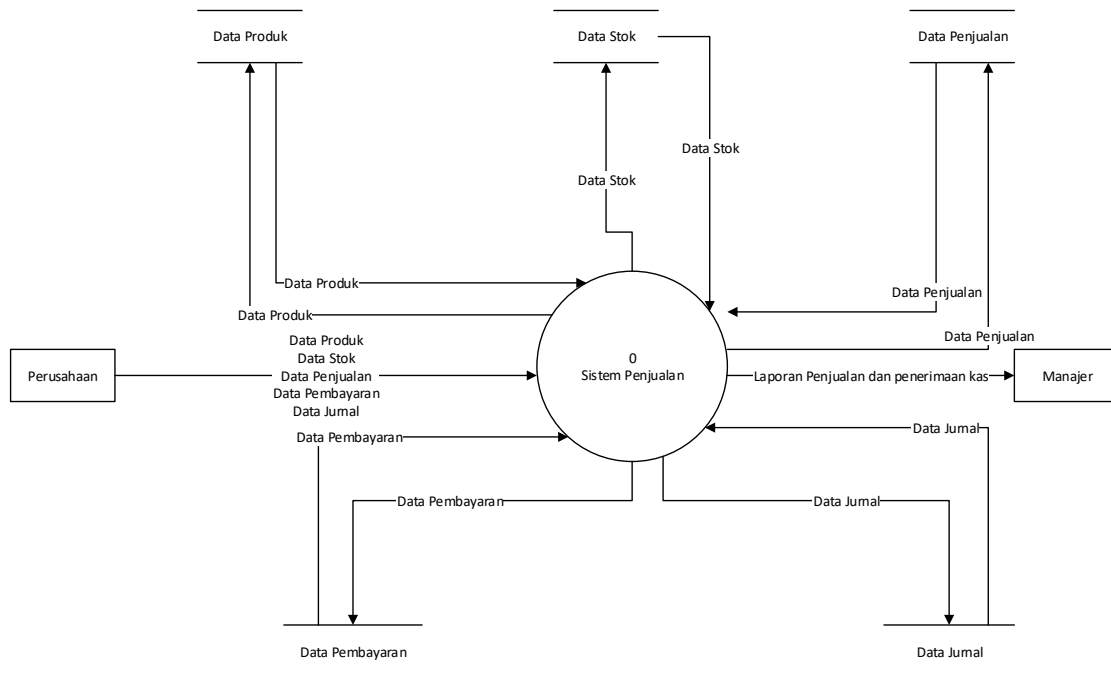


Figure 4. Context Diagram

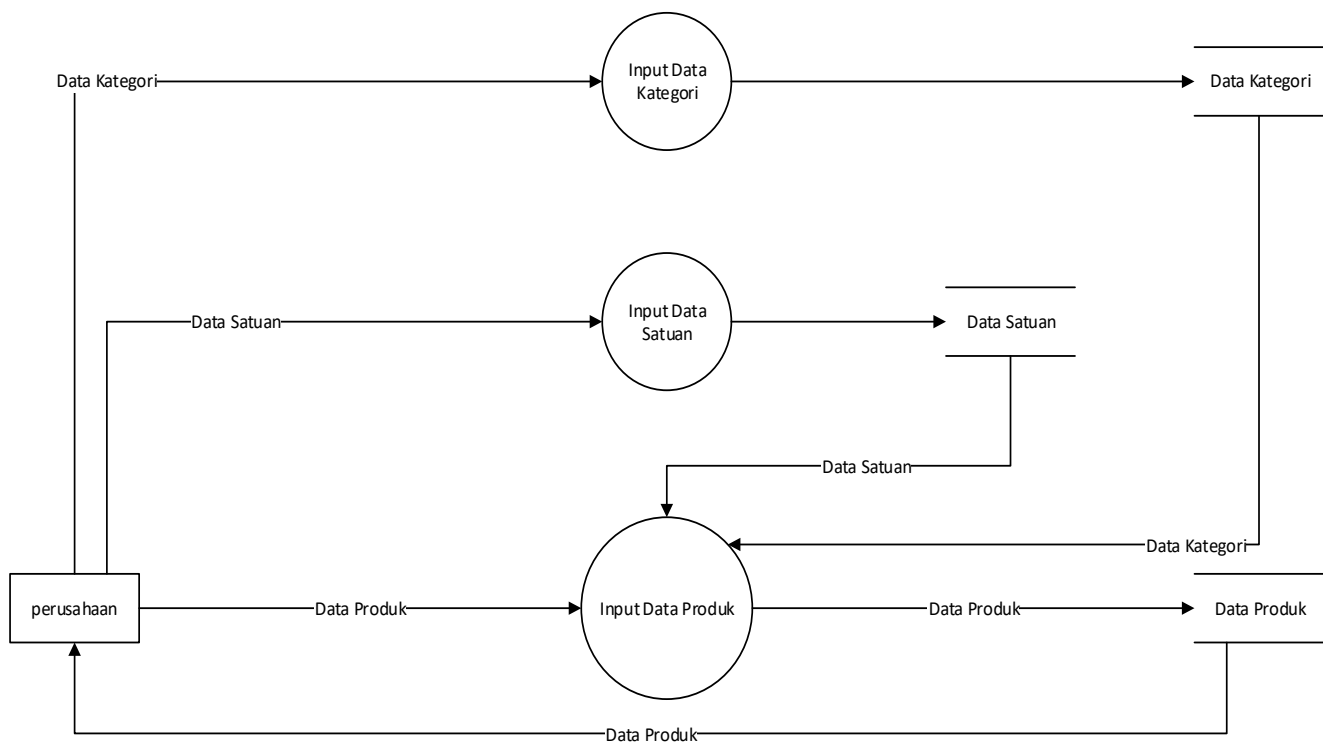


Figure 5. Level 1 Diagram

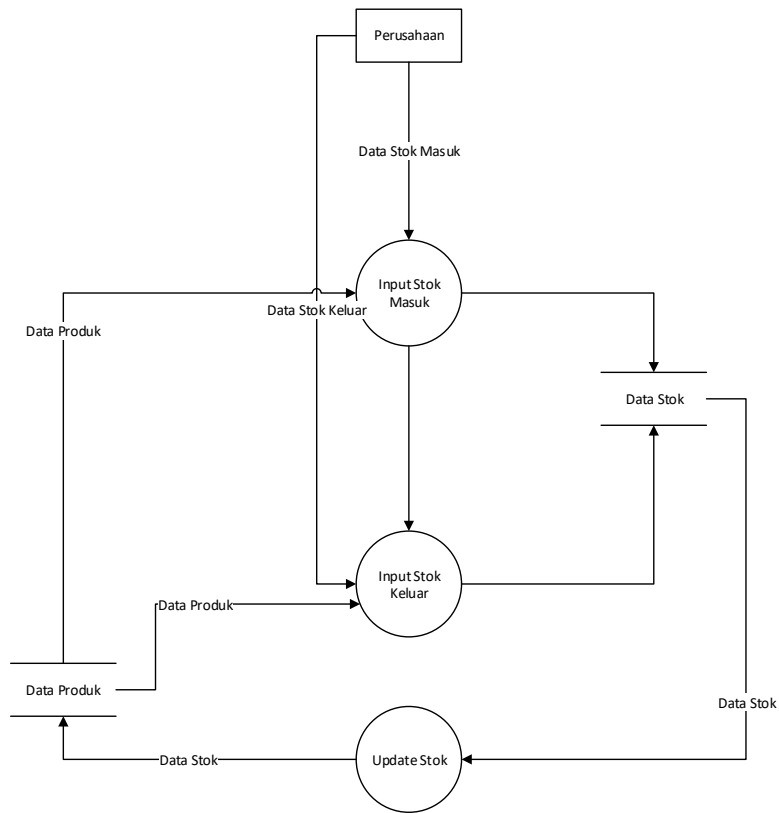


Figure 6. Level 2 Diagram

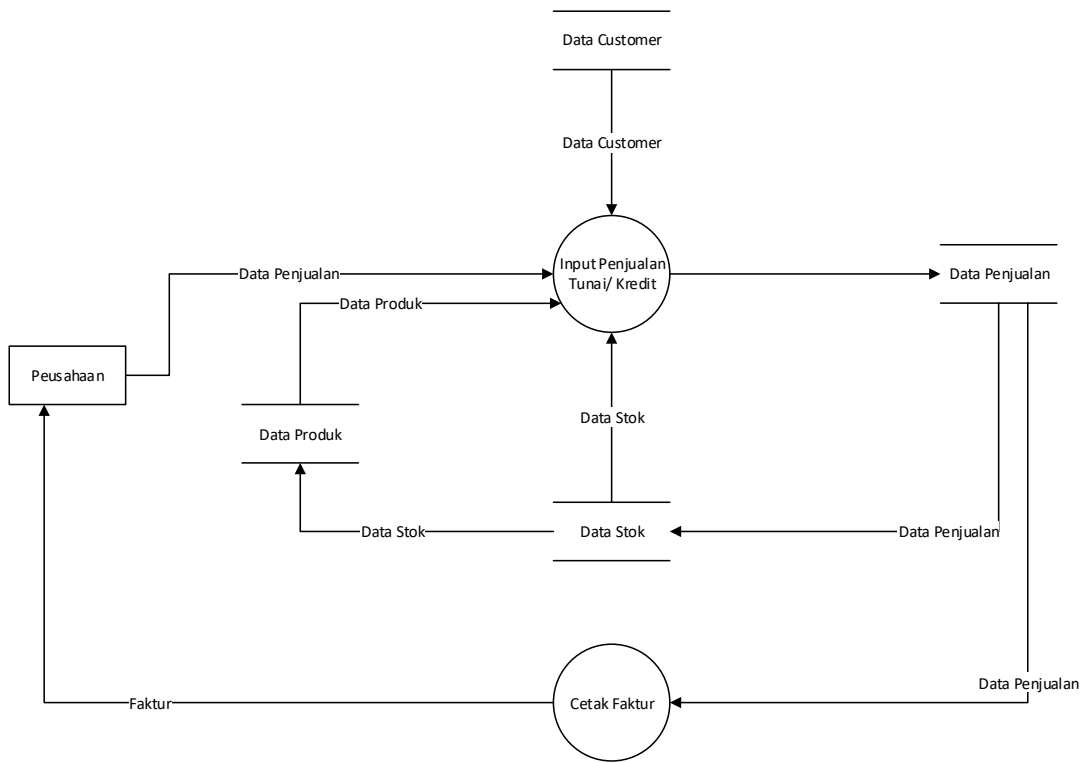


Figure 7. Level 3 Diagram

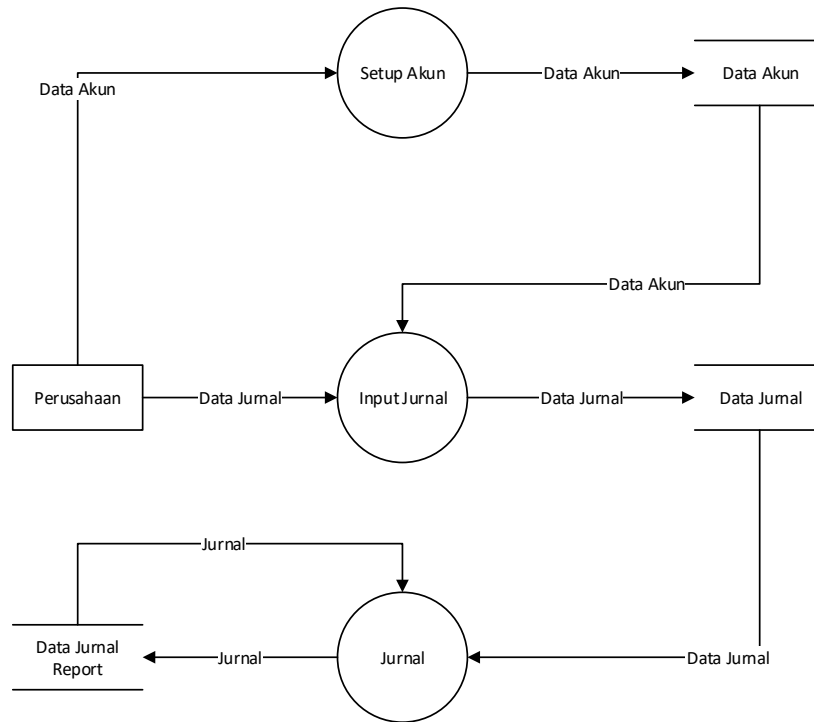


Figure 8. Level 4 Diagram

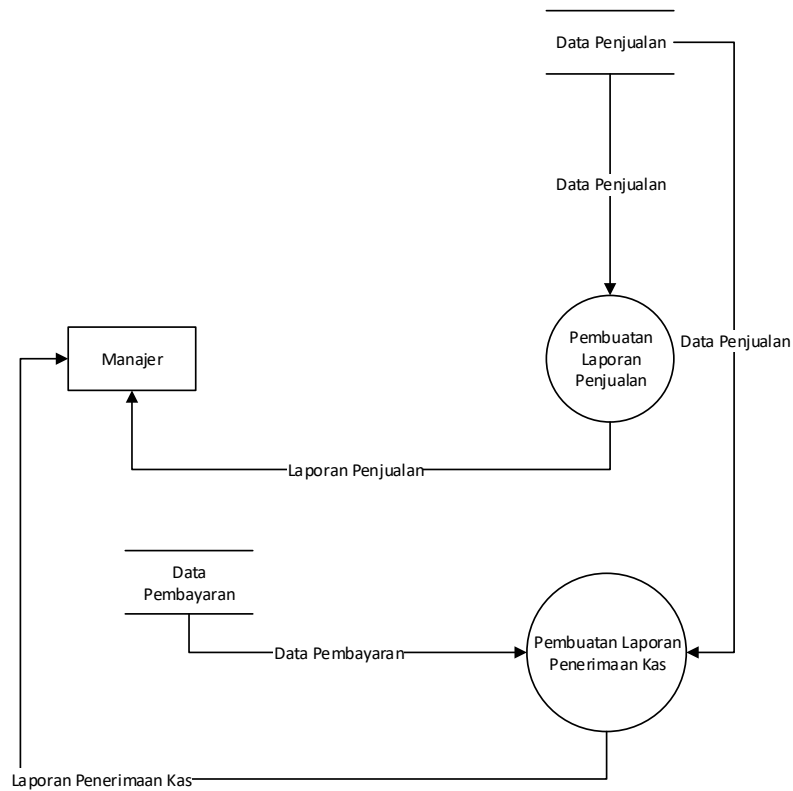


Figure 9. Level 5 Diagram

c. Entity Relationship Diagram (ERD) of The Suggested Credit Sales System

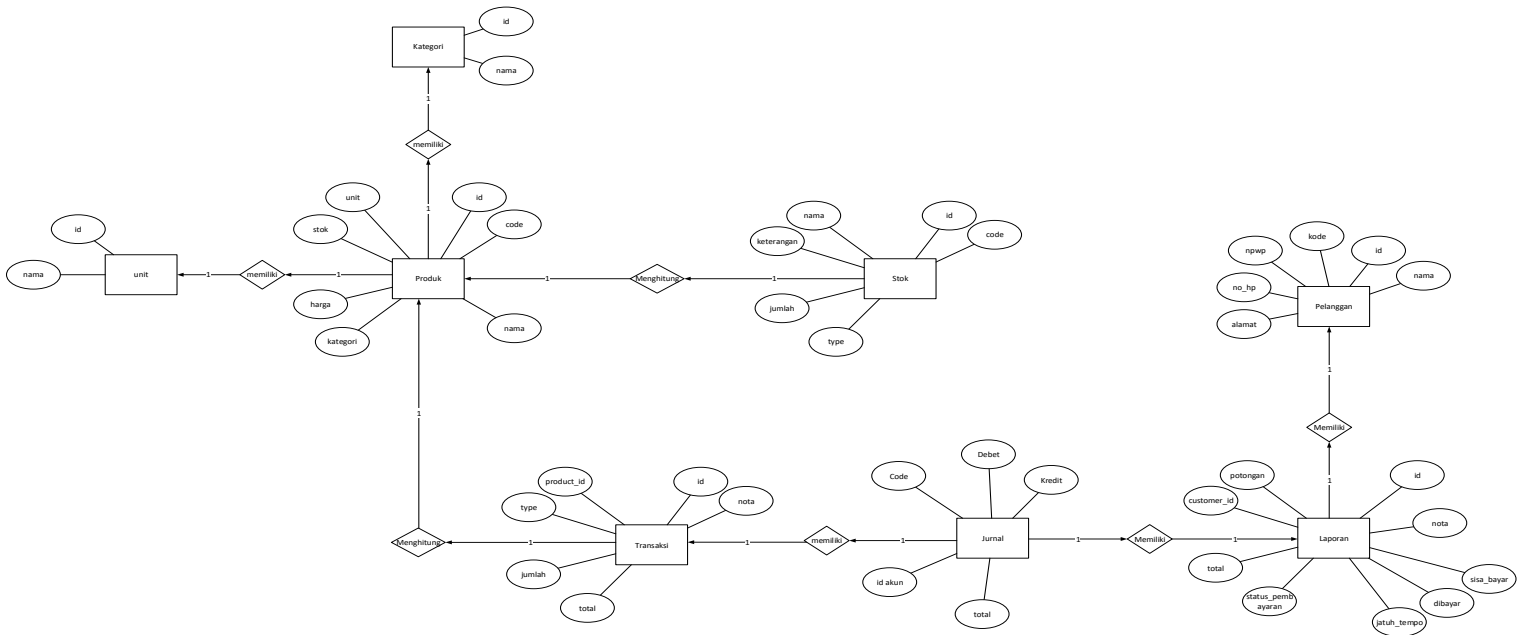


Figure 10. ERD

d. Normalization

<table border="1"> <tr><th>Product</th></tr> <tr><td>id</td></tr> <tr><td>code</td></tr> <tr><td>name</td></tr> <tr><td>unit</td></tr> <tr><td>category</td></tr> <tr><td>price</td></tr> <tr><td>stok</td></tr> <tr><td>status</td></tr> <tr><td>created_at</td></tr> <tr><td>updated_at</td></tr> </table>	Product	id	code	name	unit	category	price	stok	status	created_at	updated_at	<table border="1"> <tr><th>Category</th></tr> <tr><td>id</td></tr> <tr><td>Name</td></tr> <tr><td>Status</td></tr> <tr><td>created_at</td></tr> <tr><td>updated_at</td></tr> </table>	Category	id	Name	Status	created_at	updated_at	<table border="1"> <tr><th>Unit</th></tr> <tr><td>Id</td></tr> <tr><td>Name</td></tr> <tr><td>Status</td></tr> <tr><td>created_at</td></tr> <tr><td>updated_at</td></tr> </table>	Unit	Id	Name	Status	created_at	updated_at	<table border="1"> <tr><th>Stock</th></tr> <tr><td>id</td></tr> <tr><td>code</td></tr> <tr><td>name</td></tr> <tr><td>notes</td></tr> <tr><td>amount</td></tr> <tr><td>type</td></tr> <tr><td>created_at</td></tr> <tr><td>updated_at</td></tr> </table>	Stock	id	code	name	notes	amount	type	created_at	updated_at						
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Figure 11. First Normal Form (1NF)

Product	Category	Unit	Stock
id *	id *	id*	id*
code	Name	name	code**
name	Status	status	name
unit	created_at	created_at	notes
category	updated_at	updated_at	amount
price			type
stok			created_at
status			updated_at
created_at			
updated_at			

Customers	Transaction	Reports	Journal
id*	id*	id*	id*
kode	Receipts	receipts**	kode_jurnal
name	product_id**	total	akun_id**
tax id	Amount	discount	debit
phone	Total	customer_id**	credit
address	Type	payment status	created_at
created_at	created_at	due date	updated_at
updated_at	updated_at	paid	
		unpaid	
		created_at	
		updated_at	

Figure 12. Second Normal Form (2NF)

e. Display Design of the Suggested System Prototype

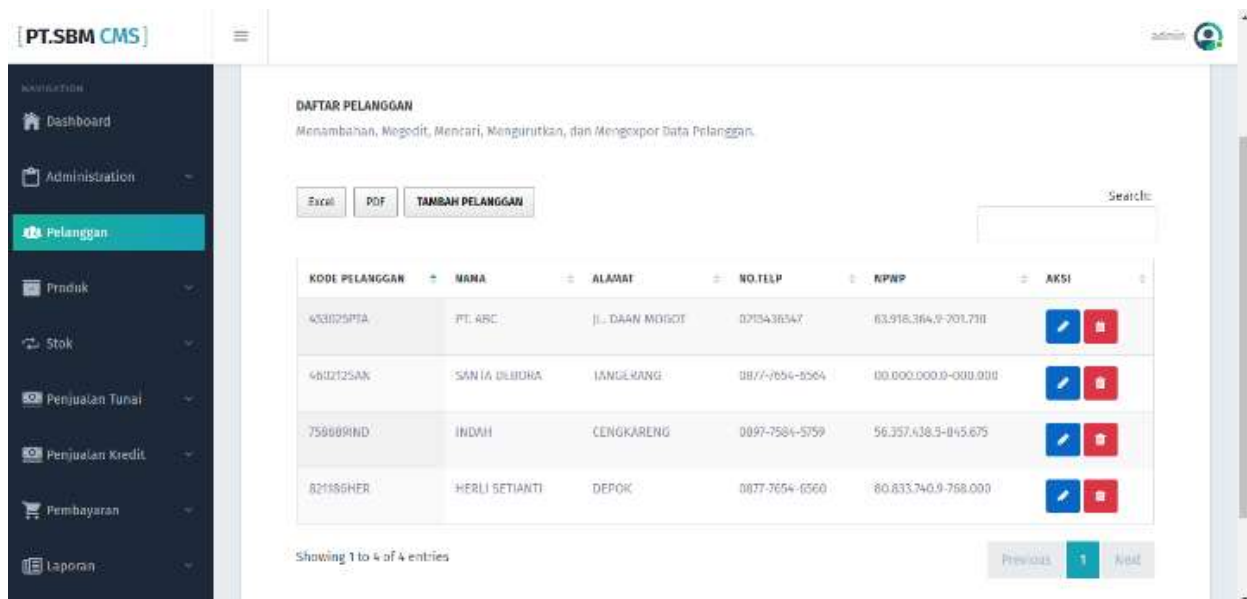


Figure 13. Customer Data Form

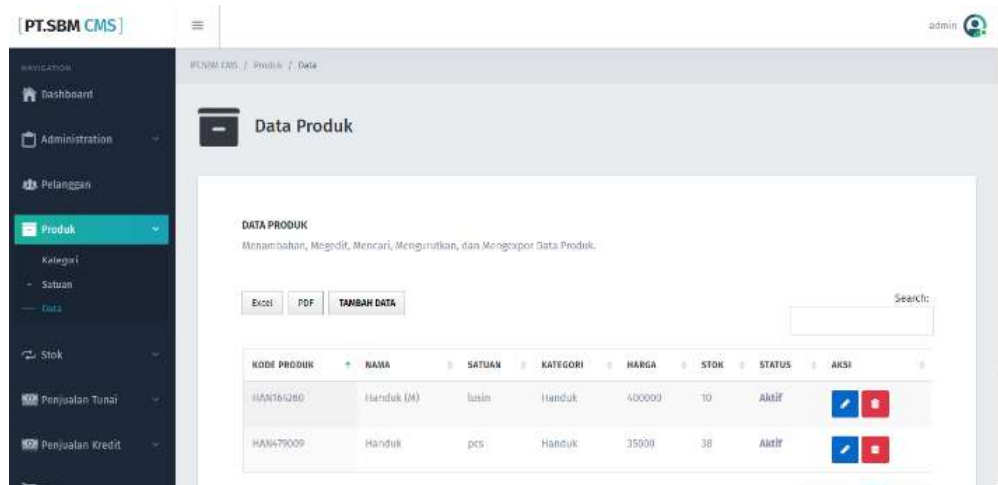


Figure 14. Product Data Form

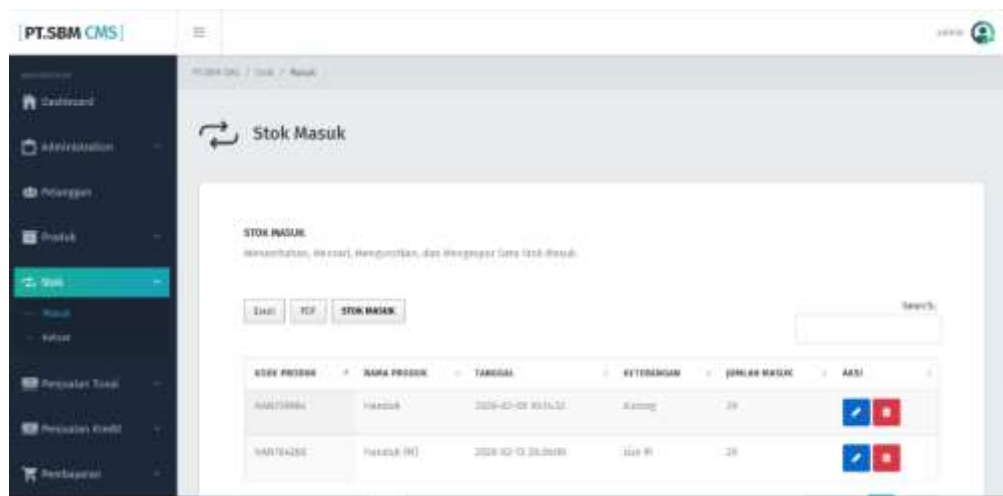


Figure 15. Stock Form

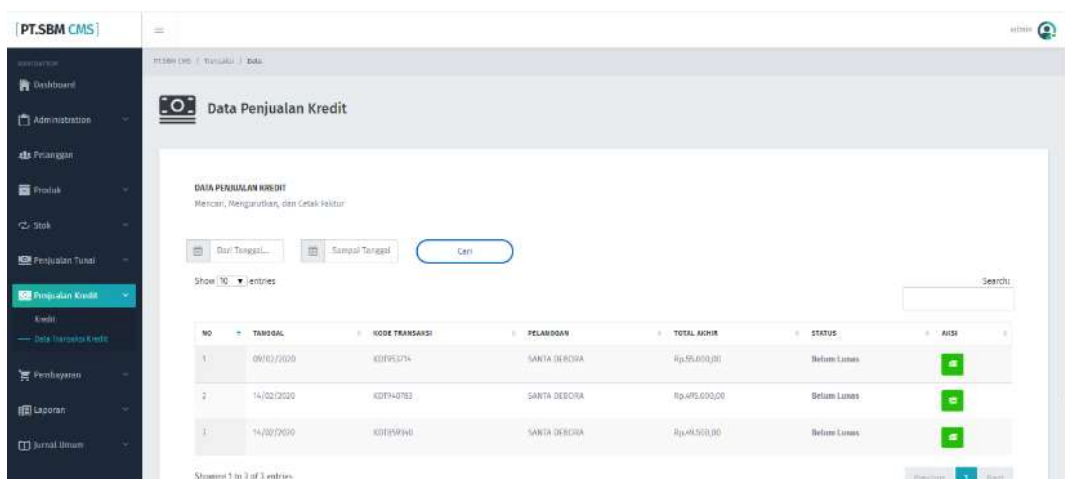


Figure 16. Credit Sales Form

PT. SURYA BARUTAMA MANDIRI Jl. Daan Mogot Km. 12.9 No 88 Cengkering Timur, Jakarta Barat Telp. (021) 5402028 Fax. (021) 6892543 sbj@suryabaru.com		Faktur Tanggal: 13 February 2020 20:53 Faktur #: 116485750 Pelanggan #: 7588894ND		
BELUNG TO INDAH CIMOKARANG Telp. 0897-7984-5758		PAYMENT INFO NPWP 50.3574335-845.075		
Items				
Tanggal	Jenis	Qty	Harga /Unit	Total
09-02-2020	Handuk	1	-Rp.50.000,00	Rp.50.000,00
			Total:	Rp.50.000,00
			Discount:	Rp.0,00
			Dasar Pengenaan Pajak:	Rp.50.000,00
			PPH 10%:	Rp.5.000,00
			Grand Total	Rp.55.000,00
* Jatuh Tempo : -				
PT. SURYA BARUTAMA MANDIRI				
* CIMB NIAGA BANK CAB TELUK GONGS AC No : 807-889886-900				
* BCA CAB DAM MODOO I AC No : 186-391-807-7				

Figure 17. Sales Tax Invoice Form

NO TRANSKID	NOMOR TRANSAKSI	PELAKSANA	TOTAL	GRAND	PPH 10%	GRAND TOTAL
34-02-0001	75840750	INDAH	Rp.50.000,00	Rp.500	Rp.5.000,00	Rp.55.000,00
34-02-0001	80795276	INDAH	Rp.50.000,00	Rp.500	Rp.5.000,00	Rp.55.000,00

Figure 18. Output Sales Report Form

CONCLUSION

Based on the results and discussion on the analysis and design of credit sales accounting information system at PT. Surya Barutama Mandiri, the following conclusions were drawn:

1. In this study the author found that the accounting information system for credit sales of PT. Surya Barutama Mandiri has multiple weaknesses. There are still multiple overlapping tasks and responsibilities, namely the cashier who is also a part of the sale and authorization of credit. As well as the employee responsible of the delivery of goods is also responsible for storage management of the goods and quality controls of the goods. In addition, the credit sales system at PT. Surya Barutama Mandiri is still

using a manual system or has not been computerized, thus the recording of sales transactions and reports requires a long time and causes some documents to be unrecorded or lost and errors as well as miscalculating the transactions which eventually will affect the company's funds and dangerous to the company's operation.

2. The alternative design of credit sales accounting information systems proposed in this study is designed to be able to overcome the weaknesses above, and be able to meet the needs of the information system. The design of the sales accounting information system consists of creating the DFD, ERD models, normality, several files or databases and producing a prototype system with customer menus, products, stock, sales, payments, general journals and reports. With the design of the system that also can be used to determine errors which should be corrected so that the credit sales accounting information system can run faster and accurately.

SUGGESTIONS

Based on the study, the authors suggest the following:

1. If possible the company should consider using a computerized sales system to reduce the weaknesses of the company's manual sales system. A computerized sales system can overcome these pre-existing weaknesses and issues.
2. The company should also improve the functions related to the separation of duties and responsibilities hence there are no double tasks between the sales activities and payment receiving activities from customers. As well as part that is responsible for storing goods, checking the quality of goods with ones that delivers the goods to the customer so that there are no over lapping of tasks to avoid fraud or data manipulation.
3. In the future, a system evaluation is expected to be held periodically both from the company and from the researchers, considering that the system is still new and can be developed even better.
4. Researchers hope that this research can be an additional reference for students and lecturers or for further research in the future and can be useful for companies in conducting business.

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