

## Design Information System Sales of Nuts and Bolts at PT. Catur Naga Steelindo

Eri Mardiani<sup>1</sup>, Ferdan Akbar Ramadhan<sup>2</sup>

<sup>1,2</sup> Universitas Nasional

Jl. Sawo Manila No.61, RW.7, Pejaten Barat., Ps. Minggu, Kota Jakarta Selatan, 12520

Email: erimardiani1@gmail.com

### ABSTRACT

*The company is expected to be able to compete with other companies that market the same product and be able to manage the company well. Companies that are just developing need to develop service regulations to sustain companies that can compete in quality and quality. Because looking at a sale will be good if a business or concrete steps taken can reach the target and can be seen from how to move a product, whether in the form of goods or services, from producers to consumers as the target can be said that sales are one of the activities in the process of fulfilling the needs of sellers and buyers, both in cash and on credit, which companies can carry out to maintain their business so that they develop and to get the desired profit or profit. The primary purpose of sales is to bring profit or profit from the products or goods produced by the producers with good management. Conducting sales is an activity aimed at finding buyers, influencing and giving buyers so that purchases can adapt their needs to the products offered and enter into agreements offered and enter into agreements regarding prices that benefit both parties. In general, sellers or entrepreneurs aim to get a sure profit and maintain or even try to increase it for a long time. This goal can be realized if sales can be carried out as planned.*

**Keywords:** *Information System Sales, sales force automation, SQL, pieces method*

### Introduction

Economic growth and technological developments in the business world have experienced rapid development, marked by the emergence of companies trying to create products and services to meet consumer needs. Business development illustrates that people's welfare is increasing, thus causing an increase in people's purchasing power. On the other hand, actions have resulted in increasingly fierce competition. Companies that initially had quite a significant market share and a broad marketing area are now required to work more efficiently and effectively at that time and in the future. Due to the fluctuating development of the Indonesian market, companies are increasingly demanding to be able to make the right and fast decisions. Timeliness in making decisions and the quality of the resulting choices are essential. Good decisions require reasonable consideration and analysis to ensure the chosen decision is correct. These decisions must also be implemented quickly to produce a practical decision.

PT. Catur Naga Steelindo is a company that sells various types of nuts and bolts data processing PT. Steelindo's Catur Naga still uses a manual system that often causes problems within the company, including duplicating data. The same data can be entered repeatedly; obtaining purchasing, sales, and other data is challenging. In addition, delays in preparing reports often occur due to difficulties in searching and processing data. The problems arise because the company has not optimized the use of computers so that the resulting information is more accurate. Based on the existing description PT. Catur Naga Steelindo requires an information system for selling goods. It is hoped that the existence of this information system can reduce the problems that arise in the company.

System Information Management is a system that can store and provide the information users need. [1][2]. In management information systems, the term Sales Force Automation (SFA) is known as a category of information system management. SFA is an automation program for business activities, including inventory control, transaction processing, customer data search, and sales performance analysis [3]. Sales are the total amount charged to customers for merchandise sold, including cash and credit. Increasing company sales is very important for the sustainability of a business. The progress and decline of a business can be seen from the increase in online or offline sales [4]. The sales information system is part of the business information system in which there are implementation, recording, document creation, and sales information. [5][6][7].

Meanwhile, according to Pratama, the information system combines four main parts. The four main sections include software (software), hardware (hardware), infrastructure, and trained HR (Human Resources). These four interrelated parts create a system to process data into useful information. [8] Currently, consumer

behavior during a pandemic can be seen by consumers making purchasing decisions, which must also be based on purchase intention. Purchase intention is influenced by perceived benefits, risks, and trust in the store [9]. Service quality affects sales volume. The service quality of a company is tested on every competitor's service. If consumers feel bored and unable to answer straightforward questions while consumers are waiting, they will think twice about doing business again with the seller [10]. Refers to a company database based on a complete operational data set/collection of an organization/company that is organized/managed and stored in an integrated manner using specific methods, using a computer, to provide the optimal information required by the user [11][12]. Increasing company sales is very important for the sustainability of a business. The progress and decline of a business can be seen from the increase in sales online or offline [13][14]. The rapid growth of technology makes technology inseparable from human life. In keeping pace with technological developments, many activities in a conventional way are transitioning to using the system. Using computers as tools, we can develop business for companies and small and medium enterprises. [15][16]. In its use, the system facilitates human activity with a small error risk. However, many activities that are easier to use the system are still found to be carried out manually [17].

The application is the implementation of the results of system design and programming using a specific programming language by the provisions and rules. A database is an organized collection of data a company or other is stored in a media with a particular method [18]. SQL stands for Structured Query Language, a database programming language capable of storing large amounts of data. UML (Unified Modeling Language) is a graphical notation used for designing object-oriented systems and explaining the design of software systems [19]. The programming language used is Java, programming language and uses MySQL database. Java is a programming language that is general/non-specific (general purpose), is designed to take advantage of minimal implementation dependencies, and can be run on various computers using the Netbeans application, which is one of the most powerful IDE today [20][21].

## Research Methods

The methods used in data collection are as follows: Observation Method, Interview Method, Documentation Method, and Library Study Method. For the development of a software system, it refers to the Pieces model. PIECES Method (Performance, Information, Economics, Control, Efficiency, and Services)[22]–[25]:

### 1. Performance

The system used now has several problems in terms of performance, namely:

- a. Response Time, the time needed to make reports is too long because it is still manual, so it slows down the work process.
- b. Throughput or the amount of information or reports produced is insufficient, incomplete, and late.

### 2. Information

A sound information system will produce accurate, relevant, and timely information.

- a. On time, finding information on the data of the goods that prospective buyers want is still challenging. This increases service time so that the process takes longer.
- b. Inaccurate, because this can be seen from the recording process, the search for goods and prices is often inaccurate, and the decision-making is not precise.
- c. Relevant, the information needed by consumers is less than expected.

### 3. Economics

- a. Minimize data storage space.
- b. The use of paper and stationery costs a lot.
- c. If there is an error in writing, the data cannot be edited because it is stored as a document. Although it can be forced to be edited, it can reduce tidiness, and the report seems invalid.

### 4. Control

The sales information system is not optimal because there are still recording errors, whether intentional or not. Because control over system security does not yet exist, employees can access those not in their field.

### 5. Efficiency

More resources are used because they are still doing manual documentation. That is, there is a waste of time, personnel, and equipment in the form of paper, mainly if an error occurs in making a report.

### 6. Services

The process of selling goods uses a manual system, thus allowing queues to make sales transactions.

## Results and Discussion

The system model design used to make this application is a UML Diagram, and an Activity Diagram is a flowchart that explains how the system works. In this study, the activity diagram starts from the owner or admin as a single user who can control the system if there is an order from a customer, while we can see the flow in Figure 1-5.

### Login Process

The login activity diagram Figure 1 describes the activities carried out by the user by entering their account before entering the system

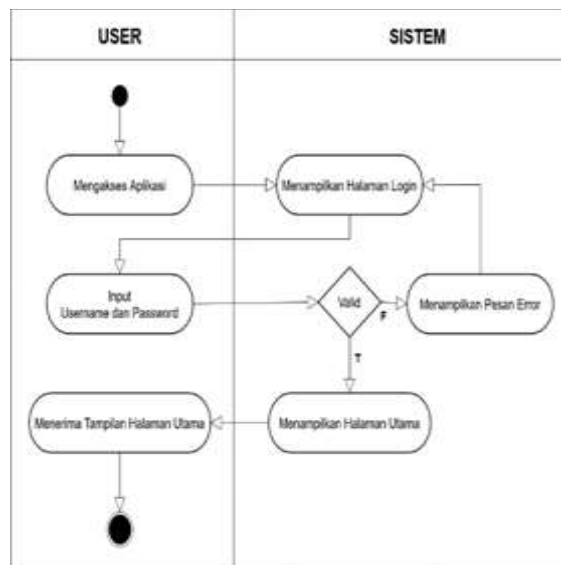


Figure 1 Activity Diagram Login Process

### Customer Data Input Process

In the data input activity diagram, Figure 2 describes the activities carried out by the user by entering data regarding customer identity.

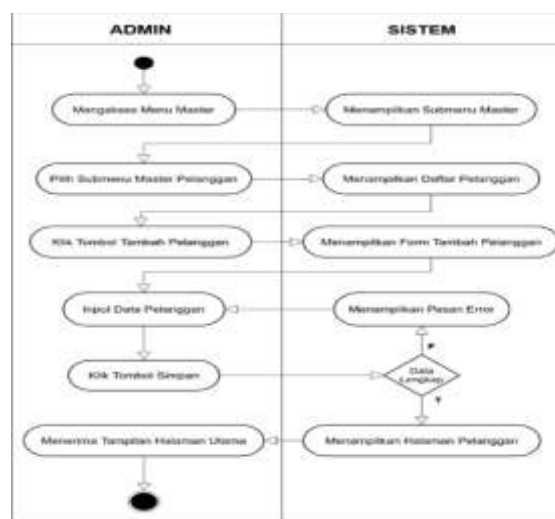


Figure 2 Activity Diagram of Customer Data Input

### Goods Data Input Process

In the activity diagram, Input goods data Figure 3 activities carried out by the user by entering data regarding the identity of goods in the company

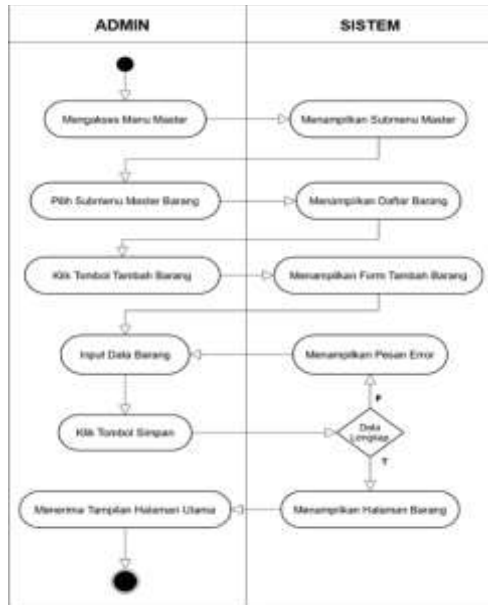


Figure 3 Activity Diagram of Goods Data Input

### Sales Process

In the sales activity diagram Figure 4, the activities carried out by the user by entering data regarding sales made at that time

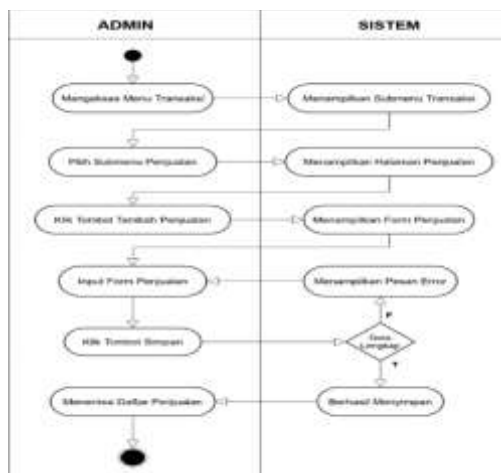
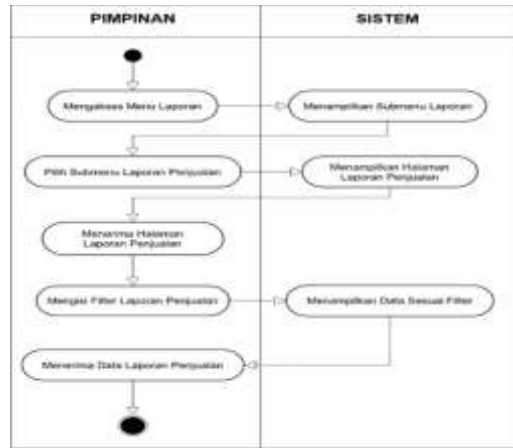


Figure 4 Sales Activity Diagram

### Sales Report Process

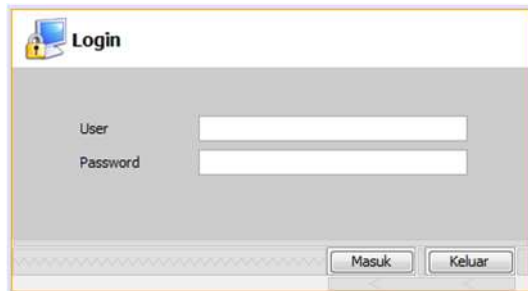
In the Report activity diagram Figure 5, the activities carried out by the user to create the company need reports.



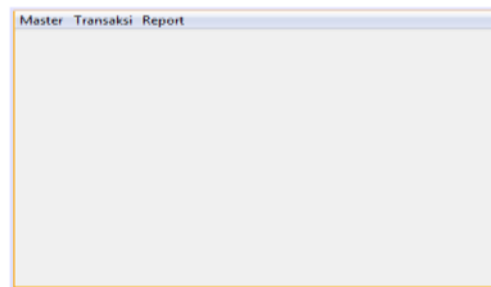
**Figure 5** Sales Report Activity Diagram

**System Implementation**

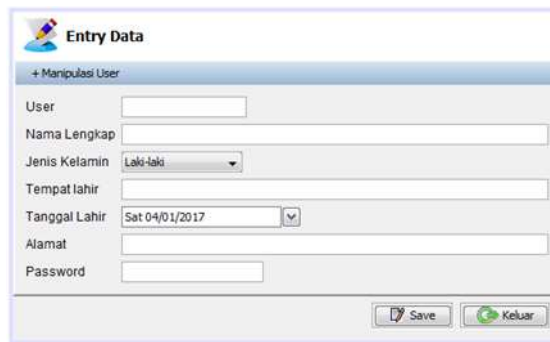
System implementation in this study is a display of the system that has been built. The results of the system design are shown in Figures 6 to 11



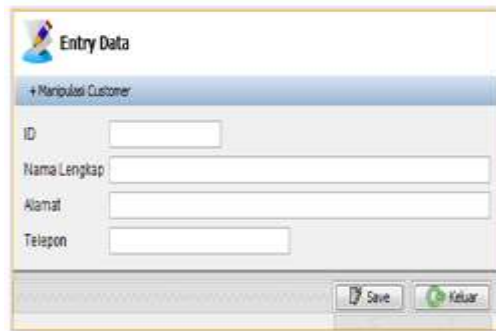
**Figure 6** Login Display



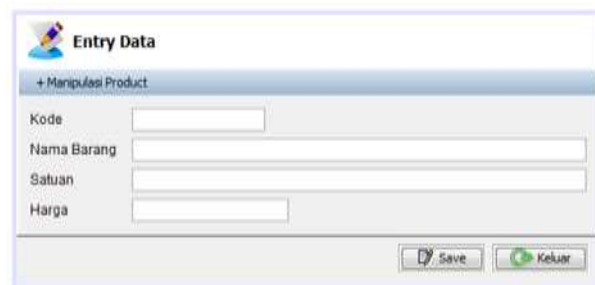
**Figure 7** Display Main Menu



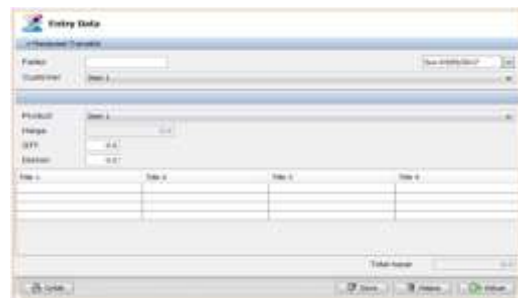
**Figure 8.** User Display



**Figure 9** Customer Display



**Figure 10.** Display of Goods



**Figure 11.** Display Transactions



No	Kode	Tanggal	Customer	Total
1	1001	2023-06-01	Customer 1	100000
Grand Total				100000

Summary

Figure 12 Display of Sales Report

## Conclusion

The sales system process that is currently running is still being recorded manually, causing delays in the process of making reports. Using a sales information system can facilitate the management of goods and sales data to help users overcome obstacles in processing goods and sales data. Write down the conclusions of your paper and further research suggestions in the form of narratives and not in *bullet* or *numeral form*.

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