Analysis of Sales System Implementation in Primary Cooperative Tribuana II

1st Tino Feri Efendi, 2nd Muhammad Sidiq
1st Institut Teknologi Bisnis AAS Indonesia Surakarta
1st Jl. Slamet Riyadi No. 361 Windan, Makamhaji, Kartasura, Sukoharjo, Indonesia
2nd tinoferi8@gmail.com, 2nd muhammadshidiq1101@gmail.com

Abstract—Primary Koperasi Tribuana II is a business entity (cooperative) under the auspices of Group 2 Kopassus, Kartasura, Sukoharjo. This cooperative was established to meet the needs of members, both from an economic, social and cultural perspective. Primary Koperasi Tribuana II was founded on September 14, 1968 under the name Primkopad II-09. This cooperative has changed its name several times, and the last name uses the Primary Koperasi Tribuana II. In an effort to meet the needs of the members, the Tribuana II Primary Cooperative carries out several activities, including savings and loans and sales of daily necessities. In fulfilling the needs, especially for stores, the Tribuana II Primary Cooperative sells goods which in its activities are still using the old method (manual). This is considered very ineffective and efficient and can not increase sales profit in a relatively fast time. For that reason, we need a system that can help smooth the sale of goods. In solving this problem, the authors designed a sales information system. In this design, the author uses the Visual FoxPro programming language. The method in this research is waterfall method. The method in this research is through interviews, observation and literature study. The system design is made with context diagrams, HIPO, input output design and Data Flow Design. The system is created in a program with the Visual FoxPro programming language with a database format using MySQL. The result of this design is to produce an application program that will be used for the web-based sales process at the Tribuana II Primary Cooperative and it is hoped that it will facilitate daily transaction activities and compile reports to be faster and more efficient.

Keywords—Information Systems, Sales, Stores, Visual FoxPro, MySQL

I. INTRODUCTION

The sales system is an important part of the operation of a company, both manufacturing and trading companies. The creation or arrangement of the sales system affects the level of company revenue acceptance. Therefore the company must really supervise and control these activities by implementing an adequate system, so that sales targets can be achieved. So far, the Tribuana II Primary Cooperative has carried out the transaction process and data recording manually, namely recording it in notes and books. This takes a long time, resulting in slower customer service. The data reporting process is very long and prone to errors. This will greatly affect the difficulty for agencies to increase revenue. Due to these problems, we need a sales system that can help process transactions quickly and precisely and report accurate data. Thus the authors conducted research with the title "Analysis of the Implementation of the Primary Sales System in the Tribuana II Cooperative"[1].

II. RESEARCH METHODS

2.1 Management Information Systems

Information technology brings many changes in organizations and business processes. Information technology is a necessity for organizations that can help organizational and individual performance. Information systems will help companies to present financial reports in the form of accurate and reliable information, so that many parties use accounting information systems to achieve excellence for the company. Information systems are the components and elements of an organization that provide information to users with the processing of financial events.[2]

2.2 Sales SPK

The system of selling goods in a business must have a related system so that it is structured in such a way, and one concrete step is taken to move a product, whether in the form of goods or services, from the producer to the consumer as the target. The main purpose of sales is to bring profit or profit from the product or goods produced by the producer with good management. In its implementation, sales alone will not be possible without the actors working in it, such as agents, traders and marketing personnel. [3]

2.3 Warehouse SPK

The warehouse system is an integrated goods storage system to achieve a goal in decision making by accepting input and producing output using organized transformation. This system usually consists of a system for receiving goods, a system for purchasing goods and a system for warehouses. This system must be able to provide information such as information on releasing goods, purchasing goods, moving or moving goods and other information quickly and accurately. In addition, this system can also facilitate user performance in their activities[4].

2.4 Application Model

The analysis conducted by the author found that the sales system used by the shop is an online web application system model. This system is run by using one computer device as a server and several computers to run / access this system. In accessing the system, it is divided into several types of use (access) according to the work part of each user. In other words, there are access restrictions for each work computer. This system in use also uses a private network (intranet) or local to be able to connect one computer to another in terms of data / information.[5]
2.5 Visual FoxPro Programming Language

The sales system uses the Visual FoxPro programming language. Visual FoxPro is a programming language that people are starting to abandon, but for some it is still used, for several other reasons. Until now, the software is still being used to make daily work easier. From starting to manage a database, to carrying out a reporting process, for example, is financial reporting.

Visual Fox Pro (hereinafter referred to as: VFP) is a programming language with the specific purpose of creating databases. The important difference between Visual Fox Pro and general purpose programming languages such as Visual Basic lies in "task specialization". This program is more aimed at dealing with the creation of an integrated database application because it already has its own DBMS with the .dbc extension in it[6].

2.6 MySQL Databases

After the analysis is carried out, the database on the sales system in the store is MySQL. MySQL is a database management system (database management) using the basic command of SQL (Structured Query Language) which is quite well known. This multi-user and multi-flow MySQL database management system (DBMS) has been used by more than 6 million users worldwide.

MySQL is an open source DBMS with two license forms, namely Free Software (free software) and Shareware (proprietary software with limited use). So MySQL is a free database server with the GNU General Public License (GPL) so you can use it for personal or commercial purposes without having to pay for an existing license.[7]

III. RESULT AND ANALYSIS

In the discussion, discussing the results of research in the form of system design as a whole are as follows:

3.1 Computerized System Analysis

System analysis is a process that must be carried out to determine the problems that must be faced. So for this process it must be really in accordance with the use so that the results can satisfy the user and have the right benefits.

Primer KoperasiTribuana II requires a system that can simplify the sales process. For this reason, a computer-based decision support system is needed so that it can make it easier to make sales transactions.[5].

3.2 System Design

1. Contex Diagram

Context Diagram (CD) for the sales system is as follows.

![Contex Diagram](image)

3.3 HIPO

HIPO (Input Process Output Hierarchy) is a system development tool and system documentation technique in programs. The most important goal of HIPO is to produce correct output and meet user requirements.

![HIPO Diagram](image)

3.4. DAD (Data Flow Diagram)

DAD (Data Flow Diagram) is a flow diagram that describes the flow from data to the system, DAD helps to understand the system in a logical, structured and clear way. The following is DAD level 0 for Sales SPK.

![Data Flow Diagram](image)

3.5 System Implementation

System implementation is the process of making a system in the form of designing a Sales DSS application:

1. Display Icon on the Desktop
2. Initial Display Of The System

Figure 4. Login View

Figure 5. The main page display of the sales system

3. User login.
Used to log in (administrator, warehouse or cashier).
In this case the cashier.

Figure 6. Display the Login Menu

4. Initial Display Of The System

Figure 7. Display of the Cashier Selection Menu

4. Sales DisplayUsed for Sales Transactions

5. Payment Menu and Print Receipt
Used to input the nominal amount of money to be paid and
the number of change will automatically appear and an
order to print a purchase receipt (receipt)

Figure 8. Display of Sales System Page

Figure 13. Display of The Nominal Input Menu and The
Receipt Print Menu

3.6 System Testing
Testing is a system test process at the end which is also
useful for testing the system. There are two system tests,
namely the functionality test and the validity test. following
the test:
1. Functionality Testing

Functionality testing uses the Black Box, which is useful
for knowing the output results in each form in the program
system. Following are the results of the recapitulation.

| No | Name | Description | Expected Output |
|----|------|-------------|-----------------|
| 1  | Login | Successful login | User logged in successfully |
| 2  | Payment | Payment successful | Receipt printed |
| 3  | Transaction | Transaction successful | Sale completed |
| 4  | Stock | Stock update successful | Stock levels updated |

Following the test:
1. Functionality Testing

Functionality testing uses the Black Box, which is useful
for knowing the output results in each form in the program
system. Following are the results of the recapitulation.
2. Questionnaire Testing

In the process of determining the questionnaire test for this system, several respondents were involved. This can be seen in the table below. Table 2. Testing Interface and System Access

| No | Respondent |
|----|-------------|
| 1  | Pengurus    |
| 2  | Admin       |
| 3  | Kasir       |

3. SWOT Analysis

| S STRENGTH | W WEAKNESS | O OPPORTUNITIES | T THREATS |
|------------|------------|-----------------|-----------|
| Generate information and reports quickly | The system must be in accordance with technological developments in order for the system to be valid and up to date | Minimizing operational costs | Technological developments require the system to always be up to date |
| Income has increased even more | The increasing number of business competitors in the same field | The development of technology, with sufficient training can improve employee capabilities | Price competition, competitors offer a lower price with a quality that is not much different |
| There is a special price for customers (members only) with a certain purchase amount | Weaknesses in the system can be fixed so that their use can be maximized | Knowing the development of trends that support the sale and purchase of goods | Limited employees make customers less well served |

In the analysis using the SWOT method, it is found that the Tribuna II Primary Cooperative can increase income by combining strengths and opportunities to overcome weaknesses and threats. Among them are increasing the number of employees accompanied by efforts to improve the quality of employees' abilities to face existing competitors. Improved system performance and search for goods at a more affordable price in order to attract new and permanent customers.

IV. CONCLUSION

At the end of this pentup is made in the form of conclusions and suggestions, namely as follows:

4.1 Conclusion

Based on the results of research and discussion in the previous chapter, the authors can conclude:

a) The existence of a new system in a computerized sales system can help speed up the transaction process that previously used the old system (manual).
b) The process of searching for data and processing data becomes faster.
c) Sales data reporting becomes more accurate.
d) Functionality testing carried out on the system uses the Black Box testing method. This produces normal results or is in accordance with the function of the system itself.

4.2 Suggestions

Suggestions that can be given for the development and Suggestions that can be given for the development and performance improvement of this sales information system are:

a) There is a need for additional storage capacity (hard disk) so that system performance is faster.
b) For security in storing employee payroll data against viruses or hardware damage, periodic backups should be performed.
c) Data entered into the program is expected to use the correct data.

Finally, with all the limitations and shortcomings of this system, the authors hope this sales system provides new views for readers to develop further.

REFERENCES

[1] S. Chugh and Kamal, “Securing Data Transmission Over Wireless LAN (802.11) by Redesigning RC4 Algorithm,” Int. Conf. Green Comput. Internet Things, pp. 1436–1441, 2015.
[2] M. Wang, Z. H. Ning, C. Xiao, and T. Li, “Sentiment classification based on information geometry and deep belief networks,” IEEE Access, vol. 6, pp. 35206–35213, 2018, doi: 10.1109/ACCESS.2018.2848298.
[3] A. Bari and Kasmawi, “Sistem Informasi Manajemen Inventory Secara Online menggunakan Framework EasyUL,” J. Inovtek Polbeng Seri Inform., vol. 1, no. 1, pp. 78–86, 2016.
[4] S. T. Bhosale, M. T. Patil, and M. P. Patil, “SQLite: Light Database System,” Int. J. Comput. Sci. Mob. Comput., vol. 44, no. 4, pp. 882–885, 2015.
[5] L. Sikos, Web Standards: Mastering HTML5, CSS3, and XML. New York: Apress, 2011.
[6] T. F. Efendi, “Pengembangan Website Smk Negeri 3 Sukoharjo,” Semin. Nas. Sist. Inf., vol. 1, no. 1, pp. 957–964, 2017.
[7] T. F. Efendi, R. Rahmadi, and Y. Prayudi, “Rancang Bangun Sistem Untuk Manajemen Barang Bukti Fisik dan Chain of Custody (CoC) pada Penyimpanan Laboratorium Forensika Digital,” J. Teknol. dan Manaj. Inform., vol. 6, no. 2, pp. 53–63, 2020, doi: 10.26905/jtm.v6i2.4177.
[8] T. F. Efendi and M. Sidiq, “Analysis of Sales System Implementation in Primary Koperasi Tribuna II,” vol. 01, no. 03, pp. 3–6, 2020.
[9] D. Multasari, “TYPES OF READING QUESTION ANALYSIS IN ELECTRONIC SCHOOL BOOK ‘BAHASA INGGIRIS’ FOR THE TWELVE GRADE OF SENIOR HIGH SCHOOL,” vol. 01, no. 04, pp. 450–463, 2018.
[10] Nastura, S. A., & Muqorobin, M. Transaction Processing System Analysis Using the Distribution Management System (DMS) Nexsoft Distribution 6 (ND6). International Journal of Computer and Information System, 1(2), 341461.