

Analysis of Sales System Implementation in Primary Cooperative Tribuana II

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Abstract—Primer 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. Primer Koperasi Tribuana II was founded on September 14, 1968 under the name Primkopad H-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 (shops). 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 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. Context Diagram

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

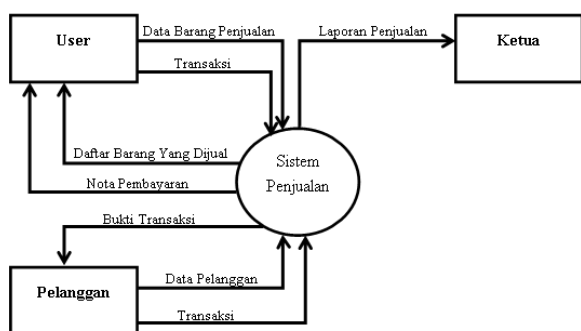


Figure 1. Context Diagram

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.

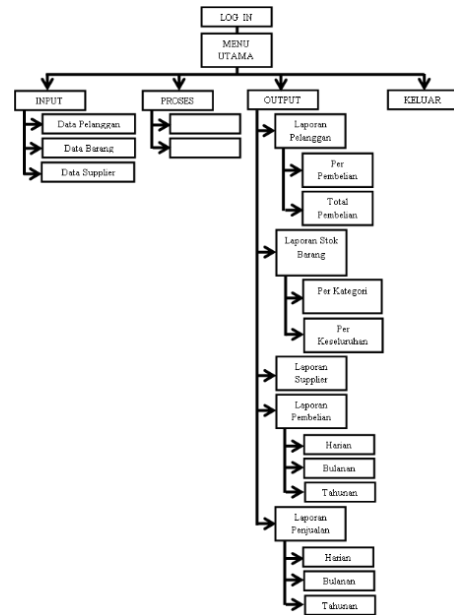


Figure2. HIPO

3.4. DAD (Data Flow Diagram)

DAD (Data Flow Diagram)

Data Flow Diagram (DAD) 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.

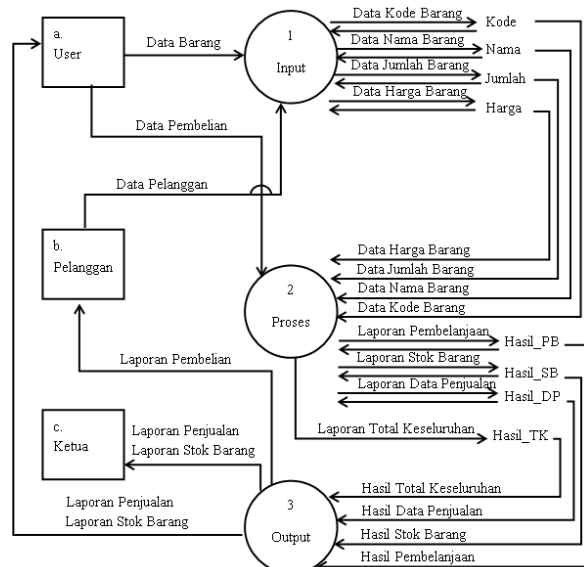


Figure3. Data Flow Diagram

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



Figure4. Login View

2. Initial Display Of The System



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 Display Used for Sales Transactions

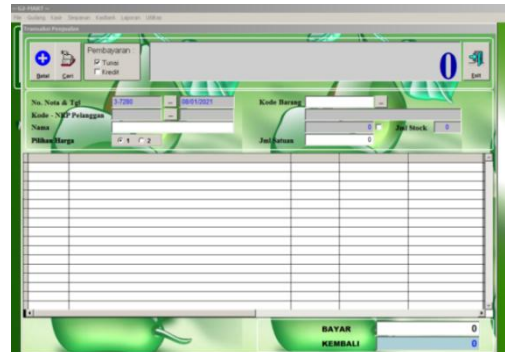


Figure 8. Display of Sales System Page

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)

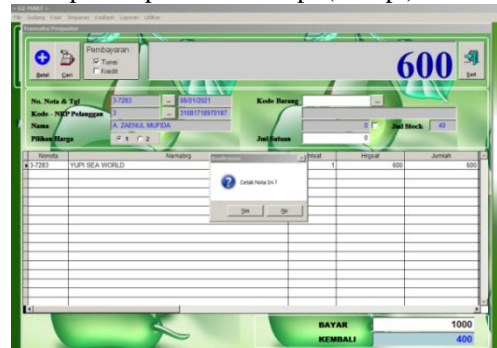


Figure 13. Display of The Nominal Input Menu and The Receipt Print Menu

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	Jenis Uji	Komponen Sistem Yang Diuji	Skenario Uji	Hasil Yang Diharapkan	Hasil Yang Diberikan	Status Uji	Hasil Pengujian
1	Uji Normal	Form Login Kasir	Masukkan username dan password dengan benar, lalu klik OK	Akses diterima dan dapat melanjutkan aktivitas selanjutnya	Muncul pesan "Login Diterima"	Normal	Diterima
	Uji Salah	Form Login Kasir	Masukkan username dan password dengan salah, lalu klik OK	Muncul pesan kesalahan	Muncul pesan "Username Password Salah"	Normal	Diterima
2	Uji Normal	Form Input Nama Pelanggan	Masukkan huruf awal dan atau diikuti huruf selanjutnya dengan benar	Muncul nama-nama pelanggan sesuai huruf awal masukan	Muncul nama-nama pelanggan sesuai huruf awal masukan	Normal	Diterima
	Uji Salah	Form Input Nama Pelanggan	Masukkan huruf awal dan atau diikuti huruf selanjutnya dengan salah	Tidak muncul nama-nama pelanggan	Tidak muncul atau muncul nama pelanggan yang tidak sesuai	Normal	Diterima
3	Uji Normal	Form Input Barcode / Kode Barang	Masukkan barcode / kode barang dengan benar	Muncul nama barang yang sesuai	Muncul nama barang yang sesuai	Normal	Diterima
	Uji Salah	Form Input Barcode / Kode Barang	Masukkan barcode / kode barang dengan salah	Tidak muncul nama barang	Muncul pesan "Nama Barang Belum Ada"	Normal	Diterima
4	Uji Normal	Form Input Jumlah Barang	Masukkan jumlah barang dibawah atau sama dengan jumlah di sistem (minimal 1)	Dapat terinput dan langsung masuk ke sora pembelian	Langsung masuk ke daftar pembelian	Normal	Diterima
	Uji Salah	Form Input Jumlah Barang	Masukkan nol (0) atau melebihi jumlah di sistem	Tidak dapat terinput secara otomatis	Muncul pesan "Jumlah Barang Tidak Tersedia"	Normal	Diterima
5	Uji Normal	Form Input Nominal Pembayaran	Masukkan nominal sama dengan atau lebih, lalu tekan enter	Muncul nominal yang kembalian	Muncul nominal sisa (uang kembalian)	Normal	Diterima
	Uji Salah	Form Input Nominal Pembayaran	Masukkan nominal dibawah jumlah, lalu tekan enter	Tidak muncul nominal yang kembalian	Muncul pesan "Uang Anda Kurang"	Normal	Diterima

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

Table 2. Respondent Data

No	Responden
1	Pengurus
2	Admin
3	Kasir

3. SWOT Analysis

S	W	O	T
STRENGTH	WEAKNESS	OPPORTUNIES	THREATS
STRENGTH	WEAKNESS	OPPORTUNITY	THREAT
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
Store 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 Tribuana 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.

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