Information system of sales accounting on non-profit organization in LPIT Al-Furqan Yogyakarta

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ABSTRACT

There are still many non-profit organizations that use manual information system of sales accounting compared to computerized ones. This study aims to design a non-profit organization information system of sales accounting in case study of LPIT Al-Furqan Yogyakarta. Unlike previous studies that use the subject of a trading company, this research uses non-profit organizations engaged in education. Data collection techniques are carried out with methods of observation, interviews, and documentation. The proposed design uses the SDLC method. Sales Transaction Analysis uses PIECES analysis. The results of system analysis show that the sales accounting information system in LPIT Al-Furqan consists of a credit sales system and cash receipt system. The sales procedure includes the invoice making procedure, cash receipt procedures, and sales recording procedures. The design results provide recommendations that also need the development of accounting information systems on LPIT Al-Furqan such as Point of Sale (POS) and Payroll purchase systems so that the system becomes more integrated. It also needs to be developed to produce open-source software on the market so that it can be used by a wider non-profit organization.

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Introduction

The development of information technology has resulted in changes in the industrial structure and management practices of business organizations (Taufiq, 2008). One of the important information systems for organizations is the sales information system. Romney and Steinbart (2011) explain if an organization do not implement a sales information system, risk of loss of sales data would increase, there would be uncollectible receivables, errors in recording accounts receivable, cash theft, and sales data will be less accurate and valid. This makes it difficult for organizations to obtain information efficiently and quickly.

Based on data from the Central Bureau of Statistics (hereinafter will be referred to as BPS, which stands for Badan Pusat Statistik) in 2014, the number of primary schools in Yogyakarta was 1,843 primary schools and 168 Islamic elementary schools. The BPS data shows that competition in educational institutions is very tight. LPIT Al-Furqan Yogyakarta is a non-profit organization engaged in education. In the initial interview in the finance section, it was known that the organization do not implement a sales information system, risk of loss of sales data would increase, there would be uncollectible receivables, errors in recording accounts receivable, cash theft, and sales data will be less accurate and valid. This makes it difficult for organizations to obtain information efficiently and quickly.

Unlike previous studies that use the subject of a trading company, this research uses non-profit organizations engaged in education. Data collection techniques are carried out with methods of observation, interviews and documentation. The proposed design uses the SDLC method. Sales Transaction Analysis uses PIECES analysis. This study aims to design a non-profit organization information system of sales accounting in case study of LPIT Al-Furqan Yogyakarta.
Conceptual Background

Accounting information system

The system is a series of two or more interconnected components that interact to achieve a goal (Romney, 2011). The system can be defined as a set of components that aim to achieve a certain goal. Anthony and Dearden in Jogiyanto (2005) explain that information is data that is processed into a form that is more useful and meaningful for those who receive it. Information is the result of processing data so that it can produce useful conclusions for its users. Thus the accounting information system is an organizational component that collects, classifies, processes applies, communicates decision-making information with a financial orientation that is relevant to outsiders and parties within the company.

Sales accounting

Sales are the activities of delivering goods or services to buyers or customers to obtain profits. There are two types of sales: (a) cash sales, namely goods or services delivered by the company to the buyer if the company has received cash from the buyer (b) credit sales, i.e. if the order from the customer has been fulfilled by delivery of goods or service delivery, for a certain period the company has receivables from its customers (Mulyadi, 2016).

System development

The process of developing information systems begins with a concept. This concept is then manifested in the development process. After the development process, the information system is then implemented and operated. Jogiyanto (2005) explains that system development is the process of compiling a new system to replace the old system as a whole or to improve the existing system. The stages of the system development cycle (System Development Life Cycle) are (a) system analysis (b) system design (c) system implementation (Mulyadi, 2016)

Several relevant studies related to the design of accounting information systems sales include Septiadi (2010), Sirait, Sutarman, and Rahim (2015), Anderson and Lulu (2015), Riskiwati (2016), and Santoso & Wiradinata (2016). Unlike previous studies that use the subject of a trading company, this research uses non-profit organizations engaged in education, namely LPIT Al-Furqan Yogyakarta.

Implementation of System

The types of research are research and development. Data collection techniques use observation method, interview, and documentation. Data analysis techniques use SDLC (System Development Life Cycle) with phases: system analysis, system design, system implementation, system operation, and maintenance. The system analysis phase consists of PIECES analysis (Performance, Information, Economy, Control, Efficiency, and Services), system requirements analysis, and system feasibility analysis. The system design phase consists of database modeling, process modeling, and interface design. The last phases are the implementation of a new system, namely planning and implementation of the system. In this study using modular conversion is the implementation of the system in a gradual or partial manner.

The sales accounting information system in the LPIT Al-Furqan relates to the cash receipt system and credit sales system. The intended customer is a student guardian. Documents and records made from sales activities to reporting include bills, receipts, accounts receivable, sales reports (payments).

The data input procedure is done manually. Starting from making bills, receipts, sales records to the preparation of sales reports. The internal control system in the LPIT Al-Furqan has not gone well. Where the division of functions such as recording functions and sales functions have not been separated.

The system analysis phase

The proposed design uses the SDLC method (System Development Life Cycle). Sales Transaction Analysis uses PIECES analysis.
Table 1: PIECES Analysis

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<th>Old System</th>
<th>Upcoming System</th>
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<tr>
<td><strong>Performance</strong></td>
<td>Making sales reports, receivables and cash receipts takes an additional workday.</td>
<td>Sales reports, receivables and cash receipts can automatically be generated when recording sales.</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>The resulting sales report is not accurate because there are still manual calculation errors.</td>
<td>The sales report is produced accurately because of the computerized operation.</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>Employees often work overtime to prepare sales reports and accounts receivable recapitalization, resulting in additional overtime wages.</td>
<td>Employees do not need to work overtime to prepare reports so that employee overtime costs can be eliminated.</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>The process of recording and reporting sales is done manually and one by one, which is a very time-consuming operation.</td>
<td>Recording and reporting sales can be done simultaneously when data entry. Making it more efficient than ever.</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>There are still human errors, especially in manual calculation.</td>
<td>Computerized calculation</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>Manual operation resulting in slow service.</td>
<td>Faster data presentation, in which has already computerized.</td>
</tr>
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The need for a new system is expected to record bills, record accounts receivable, display student names and perform student entries, display information about services sold and perform service entries, and can display sales reports and accounts receivable reports. To support the operational, a PC is required with Windows Vista as its minimum operating system, Microsoft Office 2007, and printer as the hardware.

The new system is expected to accelerate all processes related to manual sales systems. Access the new system using a password and can only be accessed by the finance and administration departments. The information generated in the form of information is sales reports, receipt reports, and accounts receivable reports.

LPIT Al-Furqan has a complete set of computers whose specifications can run the designed sales accounting information system. Employees in the administration and finance section of LPIT Al-Furqan have the technical ability to operate computer operating systems. Thus, it is technically feasible.

The designed sales accounting information systems to optimize the sales process, preparation of accounts receivable reports, and sales reports, so that the time and energy needed is more efficient. This system also minimizes human error, the required sales information becomes faster and more accurate.

The results of the Payback Period (PP) calculation show that the investment of the new system is less than 3 years, namely 1 year 3 days, so that the investment is feasible. NPV shows greater than zero, which is Rp. 4,493,524 so that investment is feasible. In the ROI calculation results show the return on investment of 26.73% which means that investment is worth running for. The software owned by Al-Furqan LPIT is legal and does not violate copyright, therefore the upcoming new system is considered legal.

**The system design phase**

The designed system design includes database design, input design and output design. The database design contains several tables, namely student tables, bill tables, bill detail tables, service tables, receipt tables for detailed acceptance tables. The input design contains the login form, student form, student detail subform, student preview subform, service form, service detail subform, bill form, bill detail subform, bill preview subform, receipt form, subform receipt details, subform preview receipt, accounts receivable form, account preview form. For output design includes reports on sales of accounts receivable, cash receipt reports, and student data reports. Relations between databases is shown below:
Interface design makes it easy for users to understand commands, information and data input. Interface design consists of dashboard interface design, reception interface design, reception input interface, bill interface, bill input interface, accounts receivable interface, student interface, student input interface, service interface, service input interface.

**Figure 1:** Relation between database

The implementation of a new system phase consists of (1) Implementation Plan; At the system implementation phase, which needs to be prepared in advance is the procurement of equipment and equipment supporting the system. So that the system can run effectively and efficiently human resources or users also need to be trained to use the system. (2) System Testing and Implementation; There are 14 processes in testing and implementing a new system. 14 this process is done simultaneously when in the implementation process there is a bug, the system will be fixed immediately. 14 The process includes Login, Input Services, Change Services, Erase Services, Student Input, Change Students, Delete Students, Bill Input, Change Bills, Delete Bills, Input Receipts, Change Receipts, Change Receipts, Delete Receipts, Print Receivables.

**Figure 2:** Interface design
Functions related to the sales accounting information system in LPIT Al-Furqan, namely the credit sales function and cash receipt function. In the new system it is not necessary to prepare accounts receivable. When inputting cash receipts, it will automatically save and process data, which results in accounts receivable report information.

Sales accounting information system in LPIT Al-Furqan consists of three procedures. First, the bill input procedure is to enter the bill number, the date of making the bill, the name of the student, the service received and the amount, and the printing of the bill. Second, the cash receipt procedure is input to the receipt by filling in the receipt number, date of receipt of receipts, student names, bills paid and number of bills. Third, procedures for reporting sales and cash receipts. After the bill is made and cash has been received, the system can automatically display and print sales and cash receipt reports.

From the results of the study it can be seen that there is no internal control system related to the sales system in the LPIT Al-Furqan. This is not possible because there is no separation of functions in the sales system.

The implementation method used is modular conversion. In the initial stage, procurement needs are used to run the new system. Then the next step is testing the system. Users who test this system are the administration and finance. Administrative and financial employees can easily use a new system because no special skills are needed.

Conclusion

Sales accounting information system in Al-Furqan LPIT includes credit sales system and cash receipt system. The existence of a new system makes all bills of invoices and receipts recorded and can be immediately displayed.

Sales procedures for Al-Furqan LPIT, namely bill-making procedures, cash receipt procedures and sales recording procedures. Based on PIECES analysis, it is known that the new system is better than all aspects. In a system feasibility analysis that includes technical, economic, legal, operational and social feasibility, the new system will assist organizations in decision making. The implementation is carried out using the Modular conversion method. The need for new system implementations includes the procurement of hardware, software, and system support equipment.

In the Al-Furqan LPIT, it is necessary to develop an accounting information system other than the sales system such as the Point of Sale (POS) and Payroll purchase system so that the system becomes more integrated. The need for further development of the sales accounting information system to produce open source software marketed so that it can be used by non-profit organizations, especially those with the broader education sector.

References


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