Cash Receipt Information System at Regional Drinking Water Companies Using PHP and MySQL

Fitria¹, Anhar Khalid²*, Emy Iryanie³, Heldalina⁴
¹³⁴ Computerized Accounting Study Program, Politeknik Negeri Banjarmasin
² Mechanical Engineering Study Program, Politeknik Negeri Banjarmasin

Corresponding Author: Anhar Khalid anhar.khalid@poliban.ac.id

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Manual accounting records have shortcomings in terms of accuracy of recording and slow reporting, as manually entered data has to be recapitulated. In some large companies that have branches of business, the users of technology are no longer strangers, but there are often difficulties in recording temporary cash receipts on their branches. From this background, the author carried out research by designing and building a web-based cash receipt application with PHP and MySQL. The author focused on the cash recording application because this application is allocated to branches of companies that have not implemented the system of financial recording, in this case cash receipts that will later be deposited with the central company because the funds received are temporary. This research helps companies record cash receipts and cash deposits and provide final results in the form of a report of each transaction carried out by the company. Like previous research on cash flow information systems, it suggests that the existence of information systems can help in carrying out financial recording, as well as other research that states that computerized recording is much more effective and efficient and facilitates...
INTRODUCTION

Fast-growing technology is demanding that the wider public keep up with the advances of technology, both in terms of its development and use. It also affects the business and business sectors, especially in the area of financial records that can be presented quickly and accurately in a short time (Heldalina et al., 2022; Otinur et al., 2017). The increasing presence of technology has made the company previously perform transaction recording manually as part of the implementation of technological advances in its business activities. Manual accounting records have shortcomings in terms of accuracy of recording and slow reporting, as manually entered data has to be recapitulated. In some large companies that have branches of business, the users of technology are no longer strangers, but there are often difficulties in recording temporary cash receipts on their branches. Because the branch of the company only receives temporary cash to cover payments that have to be deposited at its headquarters without the presence of a direct integrated system or application or a dedicated independent application to record cash receipts at the branch, Cash Receipt Information System at Regional Drinking Water Companies Using PHP and MySQL.

From that background, the author conducted research by designing and building a web-based cash receipt application with MySQL and PHP. The author focuses on the cash recording application because this application is intended for branches of companies that have not implemented the system of financial recording. In this case, cash receipts will be deposited with the central company because the funds received are temporary. In previous research, this cash receipt and expenditure application was found to be very useful, as it can help carry out cash recordings (Alista et al., 2021; Amrullah et al., 2021) as well as facilitate work in data management (Ari Indraswati, 2021; Kristeria et al., 2020). Even information systems can help companies with decision-making (Hayat et al., 2019; Misran, 2020).

LITERATURE REVIEW

A. Cash Receipt

Cash receipts are cash additions or cash equivalents that increase due to financial transactions. Cash receivables can be grouped and obtained from cash sales, credit, or other sources, whereas what is called cash receipt accounting is the recording performed based on the activity of receiving funds from the results of the sale of goods or services, both cash and credit. (Haqiqi et al., 2020).

B. PHP (Personal Home Page) and MySQL

PHP is a programming language specifically for the development of a website and can be embedded in open-source HTML scripts, which can describe some easy-to-learn programming languages such as C, Perl, and Java. (Firman et al., 2016). PHP is a server-based language used to create web pages that merge with HTML and function to receive, process, and display data on a site so that the processed data will be displayed on the site's screen after it is received and processed. PHP makes it easy to integrate with the database and can directly support several databases, which is one of the advantages of PHP. Some
advantages of using PHP are that it has fast access, is cheap because it is open source, easy to use, etc. (Ichsan & Fitria, 2021; Kadarsih & Andrianto, 2022)

MySQL is a type of database used to create a web-based application that is dynamic and supports the PHP programming language. Users are free to use MySQL, but it cannot be used as a commercial product. MySQL has become very popular because it is open source, has complete features, can be used on a variety of operating systems, supports many databases, etc. (Kadarsih & Andrianto, 2022).

**METHODOLOGY**

**A. Types Of Research**

This research is a case study, so researchers study deeper into the information about the activities that exist in the company. The author conducted research activities in Tabalong district by using the object of a drinking water company with branch status.

**B. System Development Method**

The research method used in the application design process uses several stages. Software development in this study uses the SDLC (System Development Life Cycle) system development model (Fitria & Nisa, 2017). The waterfall model can be seen in figure 1.

![Figure 1. Model Waterfall](image)

The stages in Figure 1 above can be illustrated as follows:

1. **Analysis**, is the process of analyzing the needs of the user as the basis for the planning and development of the system to be built.
2. **Design**, is a process that gives an overview of the encoding as a picture of what is to be built or done up to the appearance to be designed.
3. **Coding**, is the phase of encoding a system using a programming language.
4. **Testing**, is the phase of testing a system that has been built to see if it has been constructed in accordance with the plan or not.
5. **Maintenance**, is the stage of development, improvement, and maintenance of a system that has been built (Amrullah et al., 2021).
C. Data Collection Methods
Data collection methods in this study include:
1. interviews, conducted informally, so that the interviewer does not have a list of questions that are genuine.
2. Literature studies, i.e., collecting and reading several sources that come from journals and the Internet.

RESULTS
A. Analysis of System Needs
1) Functional Needs
A functional need is a type of need that contains the processes performed by a system as well as the information presented by the system to be built. (Fitria & Liana, 2013). As to the functional needs in this study can be seen in table 1 below:

<table>
<thead>
<tr>
<th>No</th>
<th>User</th>
<th>System Functional Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cashier</td>
<td>a. Can login as a cashier;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Can enter cash receipt transactions;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Can do a recapitulation of cash receipts;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Can make deposits to the branch.</td>
</tr>
<tr>
<td>2</td>
<td>Head of Branch</td>
<td>a. Can login as Head of Branch;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Can conduct a record check conducted by the cashier.</td>
</tr>
</tbody>
</table>

2) Non-Functional Needs
Non-functional needs are needs that relate to properties owned by systems (Fitria & Liana, 2013). The non-functional needs identified in the research can be found in table 2 below:

<table>
<thead>
<tr>
<th>No</th>
<th>Perangkat Keras</th>
<th>No</th>
<th>Perangkat Lunak</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Processor AMD</td>
<td>1</td>
<td>Windows 7</td>
</tr>
<tr>
<td>2</td>
<td>Memory (RAM) 2.00 GB</td>
<td>2</td>
<td>XAMPP</td>
</tr>
<tr>
<td>3</td>
<td>Harddisk 500 GB</td>
<td>3</td>
<td>Browser</td>
</tr>
<tr>
<td>4</td>
<td>Printer</td>
<td>4</td>
<td>PHPMyAdmin</td>
</tr>
<tr>
<td>5</td>
<td>Keyboard</td>
<td>5</td>
<td>Visual Studio Code</td>
</tr>
</tbody>
</table>

B. System Design
1) Diagram Context
A context diagram is a diagram consisting of processes that describe the scope of a system. This is the highest level of DFD because it describes the entire activity that exists in a system. (Ummah et al., 2019). The context diagram can be seen in figure 2 below:
2) **DFD (Data Flow Diagram)**

DFD is a modeling tool for the process of device analysis. DFD was used to model a system that describes the functional processes of each data stream so that it can be connected (Ummah et al., 2019). Here’s the DFD level 0 cash receipt application on figure 3 below:
For DFD Level 1 cash receipt application can be seen in figure 4 below:

![DFD Level 1](image)

**Figure 4. DFD Level 1**

3) **Design Appearance**

a) **Home Page View**

The main page view is a view that contains entries such as username and password as access to the application program view. Figure 5 shows the login page view:

![Home Page View](image)

**Figure 5. Home Page View**

b) **Add Data Page**

On the page for adding cash receipt data, the cashier can record the cash transaction data shown in figure 6 below.
c) Cash Receipts Data Page

On the cash receipt data page, there are transaction data in the form of dates and a number of other data displayed in the cash transaction record, and there is an option to edit and delete the transaction data shown in figure 7 below:

![Add Data Page](image)

Figure 6. Add Data Page

![Cash Receipts Data Page](image)

Figure 7. Cash Receipts Data Page

d) Report Page

A report page is a page that displays a data record of each record performed. There are three pages of the report, namely the cash receipt report in figure 8, the bank sector report in figure 9, and the summary report in figure 10, which can be seen below:
Figure 8. The Cash Receipt Report

Figure 9. The Bank Sector Report
DISCUSSION

The author focuses on the cash recording application because the application is allocated to branches of companies that have not yet implemented the system of financial recording. In this case, cash receipts will be deposited with the central company because the funds received are temporary. In previous research, this cash receipt and expenditure application was found to be very useful, as it can help carry out cash recording as well as facilitate work in data management. Even information systems can help companies with decision-making. From the research that has been carried out, it can be concluded that the increasing presence of technology makes companies that previously performed transaction recording manually participate in the application of technological advances in their business activities. Manual accounting records have shortcomings in terms of accuracy of recording and slow reporting because the data entered manually has to be recapitulated again. Because of these problems, the author conducted research by building a cash receipt application for a web-based company with PHP and MySQL.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research helps companies record cash receipts and cash deposits and provide final results in the form of a report of each transaction carried out by the company. Like previous research on cash flow information systems, it shows that the existence of information systems can help in carrying out financial recordings (Hakim et al., 2021; Heldalina et al., 2023; Rostiani et al., 2021; wasiyanti, 2017).
Recommendations

The author suggests that the company can implement applications that have been built into its business activities because applying technology within the company will make every transaction more efficient.

FURTHER STUDY

Further research is expected to add other features in the development of applications according to the needs of the company, as the more advanced technology, the more the company needs in the field of technology.

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REFERENCES


