

## Cash Receipt and Expenditure Application Based on a Website Using PHP at PT Indika Teknologi Perkasa

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### ABSTRACT

PT Indika Teknologi Perkasa still uses manual cash receipt and expenditure recording with Microsoft Excel, which is at risk of causing errors and data loss. This research aims to develop a web-based application using PHP and MySQL, in order to improve efficiency and security in the management of the company's cash. The research method used is qualitative with a case study approach through interviews, observations, and documentation. The research results show that the developed application successfully automated cash transaction recording, provided real-time reports, and enhanced the security of financial data. In conclusion, this application improves the efficiency of cash recording at PT Indika Teknologi Perkasa. Suggestions for further development include the addition of integration features and automatic backup.

## **INTRODUCTION**

Along with the development of technology, many companies are starting to switch to digital systems to improve operational efficiency and reduce the potential for human error. (human error) (Fitria et al., 2023; Heldalina et al., 2023). The digitization of accounting systems is one aspect that is now prioritized by many companies to improve the accuracy and security of recording and monitoring financial transactions. Web-based technology, especially those using PHP programming language and MySQL database, offers flexible, efficient, and affordable solutions for companies to manage real-time and computerized financial transaction recording. One application of this technology is in cash management, where every cash receipt and expenditure transaction can be recorded, monitored, and reported quickly and accurately (Fitria et al., 2024).

PT Indika Teknologi Perkasa is a company engaged in electrical and network services, including pole installation and network maintenance. As a company that conducts many cash receipt and expenditure transactions related to this service, PT Indika Teknologi Perkasa has a need to record every financial transaction accurately and efficiently. Currently, the process of recording cash receipts and expenditures at PT Indika Teknologi Perkasa is still done semi-manually using Microsoft Excel. This manual recording not only takes time but also carries a high risk in terms of recording errors, data security, and the possibility of data loss due to external factors or user errors.

Additionally, manual recording limits the company's ability to conduct real-time monitoring and makes it difficult for management to obtain a complete picture of the company's financial condition at all times. (Hakim et al., 2021; Hayat et al., 2019; Syaharman, 2021). This can hinder quick and accurate decision-making based on the latest financial conditions. On the other hand, data security is also an important concern, considering that sensitive financial data is vulnerable to manipulation or unauthorized access. Therefore, a system capable of addressing all these issues more effectively is needed.

Starting from that problem, this research aims to develop a web-based application using PHP that can record cash receipt and expenditure transactions at PT Indika Teknologi Perkasa more effectively and efficiently. This application will be equipped with features that enable real-time transaction recording, quick financial report generation, and secure data storage using a MySQL database. With this application, it is expected that the process of recording cash receipts and expenditures can be done in a more structured and computerized manner, thereby minimizing the risk of recording errors and enhancing data security.

## **THEORETICAL FRAMEWORK**

### **1. Accounting and Accounting Systems:**

Accounting is the process of recording, classifying, and presenting financial transactions systematically to produce financial statements that assist management in making decisions (Anggraeny et al., 2017). A good accounting system can help companies record and monitor financial transactions to reduce the risk of errors and increase efficiency.

2. Cash in Accounting:

Cash is the most liquid asset of a company, often involved in daily transactions such as payments and receipts. Cash receipts record the inflow of money from various sources, while cash disbursements record the outflow of money for operational expenses. It is important for the company to have accurate cash records to avoid errors in fund allocation (Salman & Noor, 2024).

3. Penerimaan dan Pengeluaran Kas:

Cash receipts refer to the recording of cash inflows from clients or customers after an agreement, while cash disbursements record cash outflows as the company's operational expenses. Supporting documents such as cash receipts (BKM) and cash disbursements (BKK) are very important in this transaction (Mulyadi, 2016).

4. MySQL Database and PHP Programming Language:

MySQL is a database management system used to manage the data of this application due to its stable, free, and compatible nature with the PHP programming language, which is also used in application development. PHP is a server-side programming language designed for web development and allows dynamic interaction between users and the application server (Rostiani, Juliana, et al., 2021).

## METHODS

This research uses a qualitative research method with a case study approach at PT Indika Teknologi Perkasa. This approach helps the researcher analyze the transaction recording issues in the company and the application needs that can solve these problems.

1. Type of Data:

There are 2 types of data used in this research, namely:

- a. Quantitative Data in the form of cash receipts and expenditure reports, invoices, receipts, and the Budget Plan (RAB).
- b. Qualitative Data in the form of company descriptions, organizational structure, and licensing documents.

2. Data Sources:

The data in this study were collected through interviews with employees involved in cash recording, observations of the existing recording system, and documentation of financial reports.

3. Data Collection Techniques:

The data collection techniques in this research are as follows:

- a. Interviews are conducted to obtain direct information related to application needs and business processes in the company.

- b. Observations are made on the existing cash receipt and expenditure recording processes to understand the workflow and the shortcomings of the current system.
- c. Documentation is used to collect historical data and documents related to cash receipts and expenditures.

In addition, in the stages of building an application using the waterfall method. The waterfall method is a software development model that works sequentially with linear and structured steps. Each stage must be completed before moving on to the next stage, so the process is similar to a waterfall flowing from one step to the next. The main stages in the waterfall method include:

- a. Requirement Analysis: Collecting and analyzing system requirements.
- b. System Design: Designing the architecture of the system to be developed.
- c. Implementation: Writing program code according to the prepared design.
- d. Integration and Testing: Integrating and testing the entire system to identify errors.
- e. Deployment: Implementing the system in the user environment.
- f. Maintenance: Maintaining the system after implementation to ensure functionality and fix bugs.

This method is most effective for projects with clear and rarely changing requirements. However, its limitation lies in the lack of flexibility to accommodate changes mid-process.(Fuggetta, 2000; Sommerville, 2011).

## RESULTS

The result of this research is the development of a web-based application that can record cash receipts and expenditures at PT Indika Teknologi Perkasa. The application is built by designing using context diagrams and data flow diagrams based on the existing system in the company.

This application successfully automates transaction recording that was previously done manually, making data entry and storage easier. Similar to previous research that states that the presence of an information system can provide convenience and efficiency for companies in financial record-keeping. (Fitria et al., 2024; Granlund, 2011; Rostiani, Gunawan, et al., 2021; Skyba et al., 2020). Here are some of the main features of the application:

### 1. Cash Receipt Recording:

Managing the recording of cash receipt transactions conducted after the client makes a payment. This feature includes inputting receipt data and managing client data, as well as displaying monthly cash receipt reports.

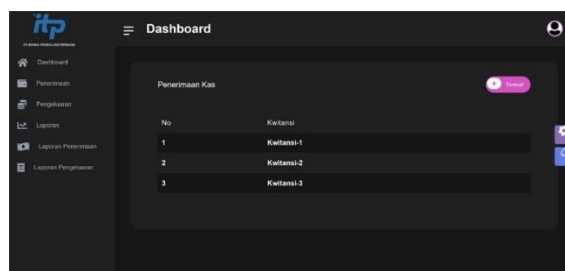


Figure 1. Cash Receipt Form

## 2. Cash Expenditure Recording:

Managing the recording of cash expenditure for operational needs, such as equipment purchases, through inputting RAB data and creating invoices approved by management.

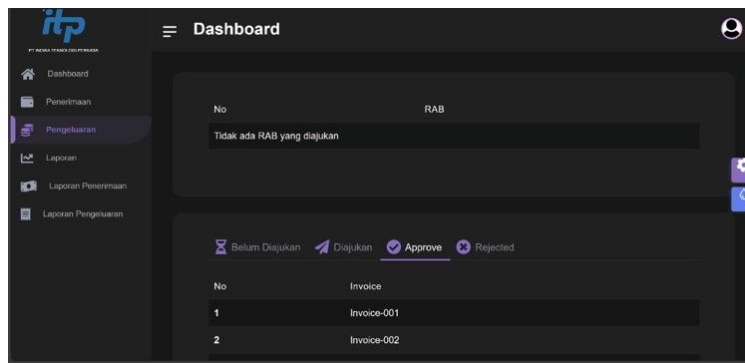
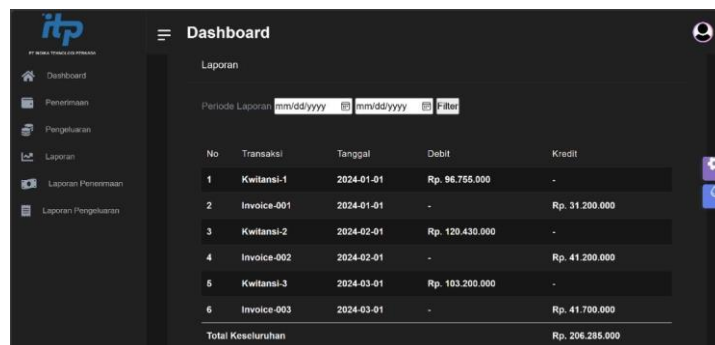


Figure 2. Cash Expenditure Form

## 3. Financial Report:

The application provides daily, weekly, and monthly cash inflow and outflow reports that can be accessed by management for real-time monitoring.

The screenshot shows a dashboard with a sidebar menu on the left containing 'Dashboard', 'Penerimaan', 'Pengeluaran', 'Laporan', 'Laporan Penerimaan', and 'Laporan Pengeluaran'. The main content area is titled 'Dashboard' and features a 'Laporan' section. It includes a 'Periode Laporan' filter with input fields for 'mm/dd/yyyy' and a 'Filter' button. Below is a table with columns 'No', 'Transaksi', 'Tanggal', 'Debit', and 'Kredit'. The table contains six rows of transaction data and a total row at the bottom.

No	Transaksi	Tanggal	Debit	Kredit
1	Kwitansi-1	2024-01-01	Rp. 98.755.000	-
2	Invoice-001	2024-01-01	-	Rp. 31.200.000
3	Kwitansi-2	2024-02-01	Rp. 129.430.000	-
4	Invoice-002	2024-02-01	-	Rp. 41.200.000
5	Kwitansi-3	2024-03-01	Rp. 103.200.000	-
6	Invoice-003	2024-03-01	-	Rp. 41.700.000
Total Keseluruhan				Rp. 206.285.000

Figure 3. Financial Report Form

## 4. Data Security:

Data security in this application is ensured by using MySQL as the database management system, which allows for structured data storage, and PHP, which handles data communication between the user interface (front-end) and the database. This combination ensures that all data related to cash receipts and expenditures can be stored securely, accessed efficiently, and allows audits to verify the accuracy and integrity of the stored data.

## **DISCUSSION**

This web-based application successfully addressed several issues in cash recording at PT Indika Teknologi Perkasa, particularly in the following aspects:

### **1. Efficiency and Accuracy of Recording:**

This new system allows for faster recording and reduces the risk of errors because all data is input directly into the computerized system. It also reduces the time required for manual report generation.

### **2. Data Security and Accessibility:**

This application utilizes MySQL security features to maintain the confidentiality of the company's financial data and prevent data manipulation. Cash reports can be accessed by management at any time through the available dashboard.

### **3. Cost Savings:**

With this application, PT Indika Teknologi Perkasa no longer requires the printing and physical storage of documents, saving space and storage costs.

However, this application still has some limitations. This application only supports the recording of cash receipts and expenditures without integrating other features that the accounting department might need, such as accounts receivable and payable management. In addition, this application does not yet have an automatic data backup feature, so there is a risk of data loss if there is a problem with the server.

## **CONCLUSIONS**

The web-based application for cash receipts and disbursements developed in this research has proven effective in improving the efficiency of cash transaction recording at PT Indika Teknologi Perkasa. This application allows the company to record and monitor transactions in real-time, reduce recording errors, and enhance data security.

## **RECOMMENDATIONS**

This application is recommended to continue being developed by adding more comprehensive features for accounting needs, such as integration of receivables and payables management and an automatic backup feature. Additionally, the company is also advised to enhance user proficiency in using this application through technical training for the relevant employees.

## **FURTHER STUDY**

Further research is expected to develop this application by adding a financial analysis module to assist management in decision-making. Integrating this application with cloud technology to enhance data accessibility and provide automatic backups. Applying machine learning techniques for cash flow prediction, which can help companies plan their budgets more effectively.

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