Financial Information System in Increasing Organizational Stability (Case Study on Ar-Ruhama Organized Foundation)

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1. INTRODUCTION

The development of information technology in the current era varies greatly, the need for effective and efficient recording of financial transactions is increasing in line with the increasing volume of transactions that occur. With the need and suitability of technology, the use of Information Technology is one way to solve the problems faced in financial reporting that occur in organizations. According to Munawir (2014: 2). Financial reports are the result of an accounting process that can be used as a tool to communicate with interested parties with the data or activities of the company/organization.

The Ar-Ruhama Orphanage Foundation records all income received from donors. Every financial transaction that occurs is recorded in a ledger. This ledger should be properly organized and updated regularly for six months. Financial bookkeeping which is still done manually at the Ar-ruhama Foundation faces various problems, including delays, irregularities, and the level of errors in recording financial transactions. In addition, data accessibility and analysis is hampered, and data security risks increase. Therefore, it is necessary to implement a web-based financial information system to overcome this problem. A web-based financial information system will increase the efficiency, accuracy and visibility of financial foundations. Access to real-time data and team collaboration online will facilitate quick and informed decision making. In addition, this system

provides more secure data security with additional security measures. By implementing a web-based financial information system, the Ar-ruhama Foundation can be more effective in carrying out its social and humanitarian missions and achieve organizational goals better.

This research was also strengthened by research (Yulisa geni et al., 2022) Which resulted in the design of an information system for Archive Data Submission of Regent Decrees based visual basic.Net with database storage using Microsoft Access 2023 can already be used and has been used and a system evaluation has been carried out.

As explained by (Geni, Kurnia and Rizal, 2021) Current technological advances require humans to increase their effectiveness and efficiency in various ways. Basically the purpose of making a tool is to help human work to be more effective and efficient.

Therefore, the Ar-Ruhama Orphanage Foundation must use a web-based information system to help facilitate the recording and processing of financial data. By using a web-based information system, foundations can easily make accurate and up-to-date financial reports. Based on the description of the background above, it is appropriate for researchers to conduct research on "Financial Information Systems in Improving Organizational Stability (Case Study on the Ar-ruhama Orphanage Foundation)".

2. RESEARCH METHODS

2.1 Software Requirements Analysis

Software, also known as software, is a collection of instructions or computer programs designed to perform specific tasks on a computer or other electronic device. In simple terms, software is the "brain" that controls hardware and provides users with various functionalities. As explained by previous researchers (Ferdiansyah et al., 2023) Software programs are a bridge between users and computers which will later be run through a program..

Some software requirements for the Financial Information System in Improving Organizational Stability of the Ar-ruhama Foundation:

1. Budget Management

    According to previous researchers (Kuntadi and Yuslina, 2023) in a journal entitled "Factors Influencing Goods/Services Procurement Budgets: Budget Planning, Management Commitment and Human Resources" Budget Management is the process of defining goals, determining strategies to achieve these goals, and development of a comprehensive set of plans to combine and coordinate activities.

    a. Software should be able to assist foundations in preparing budgets and managing their finances efficiently.
    b. The software should provide the ability to organize budgets based on different sources of income and expenses.

2. Recording of Financial Transactions

    a. The software must have an adequate module for recording financial transactions, such as receipts and disbursements of money.
    b. The software must enable the user to record transactions with full details, such as date, description, amount, and associated accounts.

3. Finance report

    According to (Arista et al., 2021) financial reports are a form of accountability which consists of at least containing annual calculations consisting of a report on the financial position at the end of the financial year that has just ended and the calculation of profit and loss for the relevant financial year along with an explanation, as well as a report on financial position along with the calculations for the consolidated profit and loss statements of the Business Units..

a. The software must be able to generate accurate and detailed financial reports, such as balance sheets, income statements, and cash flow reports.
b. The software must provide the ability to generate financial reports based on a specific time period, such as monthly, quarterly, or annually.

4. Donation Management

a. The software must enable the foundation to manage the donations received, including recording donations and managing a database of donors.
b. The software must be able to generate reports on donations received and used.

5. Data Security

According to (Haris Hrp et al., 2020) Data Security is a procedure with the support of regulations and technology to protect data from tampering with data modification. , as well as spreading data both intentionally and unintentionally.

a. Software must provide a high level of security to protect sensitive financial information.
b. The software must have access controls that allow setting access levels based on user roles, so that only authorized persons can access sensitive financial data.

2.2 Software Development Methods

The method used by the Financial Information System in Improving Organizational Stability at the Ar-Ruhama Jakarta Orphanage Foundation that can be used is the Waterfall Method.

According to (Aceng Abdul Wahid, 2020) The Waterfall model is one of the System Development Life Cycle (SDLC) models that is often used in the development of information systems or software. This model uses a systematic and sequential approach. The stages in this model start from the planning stage to the maintenance stage and are carried out in stages. Developers need to know more about how the system development process is if using the waterfall model and also the characteristics of the waterfall model.

As explained (Rizki, Rayuwati and Gemasih, 2022) SDLC is a classic methodology used to develop, maintain and use information systems. This method uses a multiple-stage approach in the system.

The following are the stages used in research using the waterfall method:

1. Data collection

According to (Effendy and Sunarsi, 2020) Suggests that Data Collection Techniques are the main technique in a research, starting from obtaining data is the main purpose From the existence of a study, without knowing the data collection technique, it is certain that the researcher cannot obtain data that can complement the standards of the data that has been set.

a. *Interview:* At this stage a question and answer activity was carried out with resource persons or management of the Ar-ruhama Foundation to dig up accurate information about the financial management system at the Ar-ruhama Foundation. The results of the interview yielded information on the problems that are currently occurring at the Ar-ruhama Foundation.
b. *Observation:* At this stage direct observations of ongoing activities at the Ar-ruhama Foundation are carried out, such as the process of incoming and outgoing money transactions which is carried out every 6 months.
c. *Literature Study:* At this stage, data is obtained by reading some literature such as journals and books, browsing the internet, previous studies and various other sources that are in accordance with the problems in the research.

    d. *Documentation:* At this stage various documents are obtained in the form of writing and pictures such as activity reports and several photos of the Ar-ruhama Foundation. This documentation is useful for obtaining additional data from the intended research location.

2. Needs Analysis

    According to (Amikom Purwokerto et al., 2021) Starting from the stages of describing a system which will then be designed according to what the system design requires, such as the needs of the analysis of hardware, software, as well as process interests, input and output and analysis of data interests and the process of collecting data.

    At this stage is the analysis stage of the system design to be built. This is the stage after the previous stage has been completed, so the next step is to conceptualize the results of the previous stage by designing the current running system and the system to be built.

3. System Design

    As explained in previous researchers (Jamaluddin et al., 2022) explained that in this phase a system design will be designed based on the results of the data from the first phase, including Flowchart design, DFD, Interface, database, and others.

    a. Data Flow Diagram (DFD)

    Data flow diagram (DFD) describes the use of the system and the processes that can occur in the information system used. Data flow diagram (DFD) is shown in Figure 1.
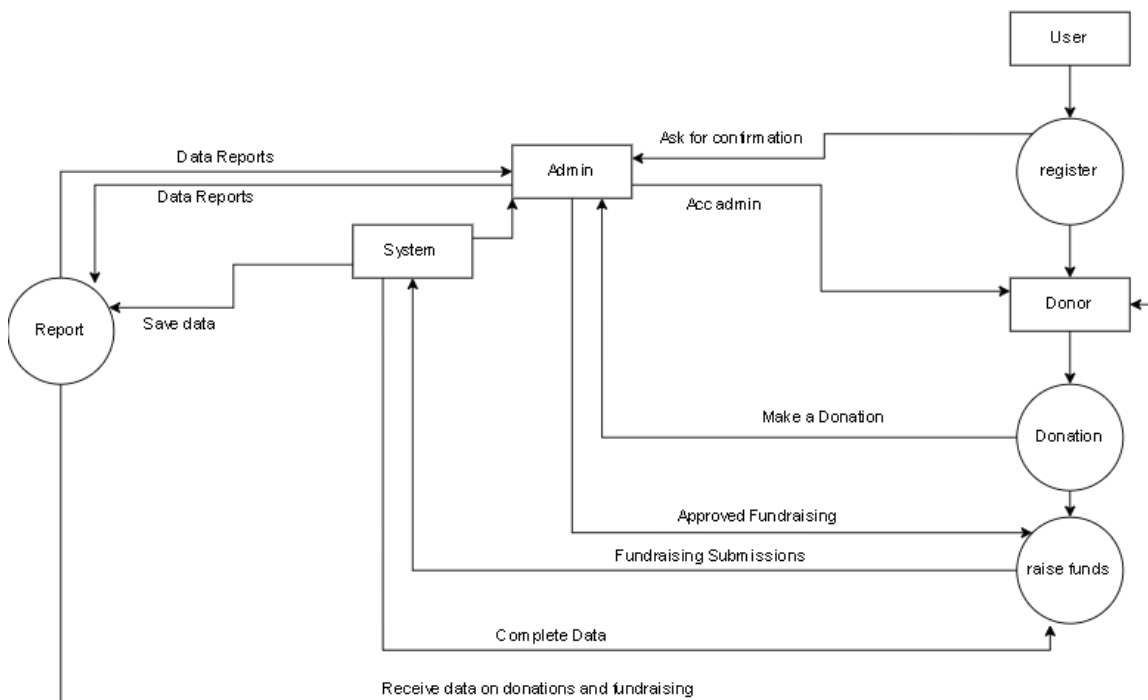

Figure 1. Data Flow Diagrams (DFD)

    b. Flowchart

    Web-Based Ar-Ruhama Foundation Financial information system design through the user flowchart is presented in Figure 3. and the administrator flowchart is presented in Figure 2.
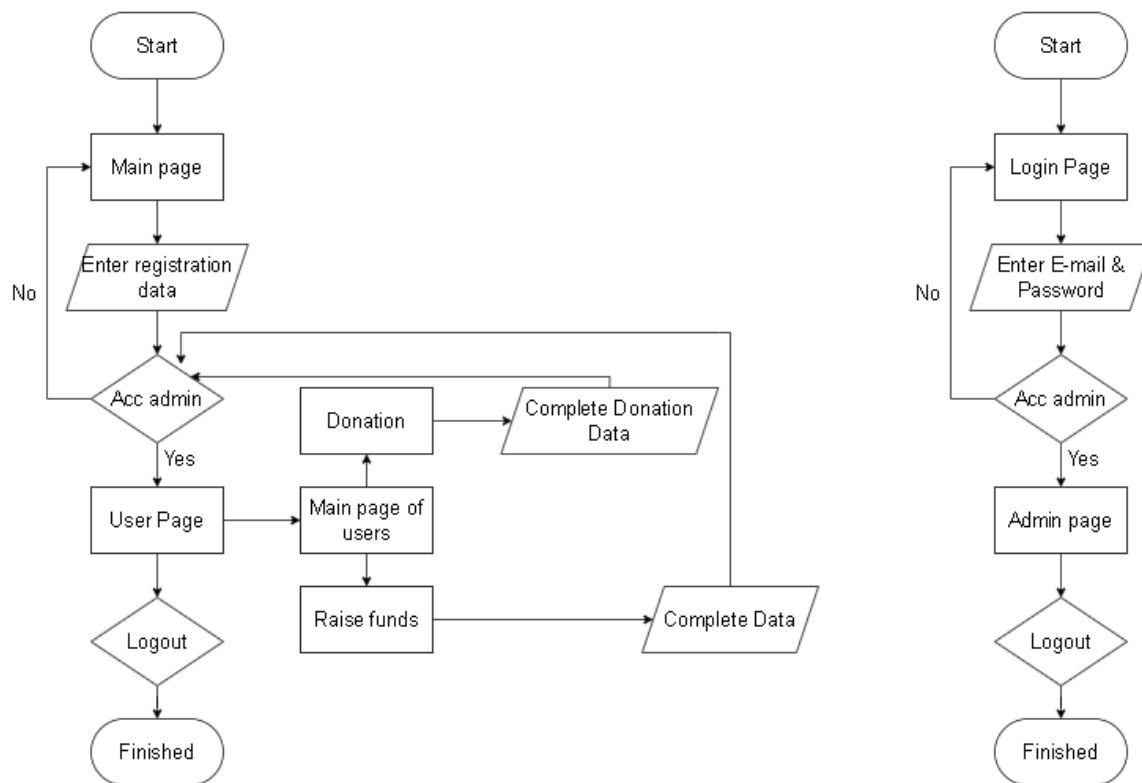
Figure 2. User Page dan Admin Page Flowchart

Based on figure User Page Flowchart shows that the user accesses the main page of the Foundation. Then the user must register or log into the system if he wants to donate and raise funds. Then the user waits for Admin confirmation to do so. After he has an admin account, users can make donations by filling in the donation data. If the user wants to raise funds the user is required to complete the required data and then wait for admin confirmation to raise funds. When finished the user can logout to exit the user page..

Based on Figure Admin Page Flowchart, it shows that the admin accesses the login page first and then inputs the email and password to log into the system. Then the system checks whether the email and password are valid. If not the admin will receive a notification that the email and password are wrong, but if it is valid then the display will change to the admin page and the admin can manage it. Admins can also logout and exit the admin page and return to the login page..

The stages in making the system (coding) after carrying out the previous design stages. At this stage it will refer to making system applications using the programming language PHP, CSS, Java script and using the Apache web server with MySQL database.

4. System Implementation

According to (Handayani et al., 2023) Preparation of menus for customers which resulted from the design of a new system that was approved in a programming language. In this step, coding and web design were carried out. .

After carrying out the previous stage, the next step is the implementation of the system that has been created. At this stage the authors implement and test the applications that have been made previously on functional requirements whether they are in accordance with the required system or not. So at this stage a trial system will be carried out that has been built and hosted directly to the server.

Table 1. System Testing Results for Users

Test Name	Form of Testing	Expected Results	Testing Results
Registration Testing	Enter full name, email, phone, password and confirm password.	Access Registration is successful and the system displays a login barrier	Succeed
Login Test	Enter the email and password that was previously confirmed by the admin	Login access is successful and displays the user dashboard page	Succeed
Profile Testing	Go to profile page	Access is successful, will display the name, email phone, profile photo, address and password confirmation	Succeed
Donation Testing	Go to the donation page and choose who you want to donate to	Access is successful, displays the full view of the selected donation and displays the amount you want to donate	Succeed
Fundraising Test	Open the Fundraising page, after completing the documents needed to raise funds	Access is successful, after filling in what has been required for fundraising, and waiting for confirmation by the admin for approval	Succeed
Document Upload Test	Upload a profile photo or required documents for the profile	Successfully upload a photo or document and appear in the profile photo	Succeed
Test Viewing Data	Opens the donations, my donations, and fundraising menus to view user data	Access is successful and the user can see how many donations have been made,	Succeed
Logout Test	Pressing logout on the profile page	Access is successful and the system returns to the main page	Succeed

Based on the test results table above, it can be seen that each page menu that has been tested and the output results from each menu are in accordance with the design of the Ar-ruhama Foundation's Financial Information System. In total, there are eight functions that have been tested.

In this test no errors were found, or the application ran properly. Apart from testing on users, tests were also carried out on the admin system which can be seen in Table 2.

Table 2. System Testing Results on Admin

Test Name	Form of Testing	Expected Results	Testing Results
Login Test	Enter Email and Password on the login page	Access is successful, the system displays the Admin Dashboard page	Succeed
Profile Testing	Enter profile data on the login page	Access is successful and the system displays the data entered	Succeed
Data Access Test	Access user data, donations, fundraising, posts and more	Access is successful, admin can access it and print it	Succeed
User Confirmation Testing	Users who register will be confirmed by the admin	Access is successful, after confirming the user can use the system	Succeed
Fundraising Confirmation Test	The user submits a fundraiser and needs admin confirmation	After the admin approves the fundraising successfully appears in the system	Succeed
Test Uploading Posts	Enter a photo and description for the post	Access is successful, the post appears successfully in the system	Succeed
Test Print Report	Choose what reports to print	Access was successful and the system managed to print the desired report	Succeed
Logout Test	Access the logout button on the profile	The system exits successfully and displays the main page	Succeed

5. Maintenance

According to (Rosmawanti, 2021) Evaluation and maintenance of the system This stage is the final stage, at this stage an evaluation of the results obtained by implementing an information-

based system is carried out. web. During that time maintenance of the web that has been made is also carried out.

This stage is the last stage of all the steps after the previous stage has been completed. At this stage the application of the financial system for the Ar-ruhama Foundation, which has been tested and repaired, then the next step is to run the system by providing and explaining the procedures for using the system to the operator in charge of managing incoming and outgoing financial data on the Ar-ruhama Foundation's financial data. After that, perform maintenance and improve the application that has been made.

3. IMPLEMENTATION

This chapter introduces the design objectives of the proposed web-based Ar-Ruhama Foundation financial information system. the goals could include increasing the efficiency of financial processes, accuracy of financial reporting, real-time monitoring, or increasing user accessibility.

1. User Dashboard Page

This page is intended if the user has been confirmed by the admin to be able to raise funds or donate in the Foundation system. If the user wants to raise funds, the user is required to complete personal data in the user profile. After that, each user fundraising must wait for admin confirmation whether the fundraising is approved or not. If approved by the admin, the fundraising will appear in the Foundation system.

Figure 3. User Dashboard Page

2. Fundraising Page

This page is a user page for submitting fundraising, after filling in data for fundraising, the user waits for confirmation from the admin whether the proposed fundraising is approved by the admin for publication or not.

Figure 4. Fundraising Page

3. Fund Withdrawal Page

This page is for withdrawing funds for raising funds that have been collected, the user is required to fill in correct data such as account number and account name, after sending a request for withdrawing funds, the user waits for the admin to send funds to the user's account.

Figure 5. Fund Withdrawal Page

4. Admin Dashboard page

This page displays menus that admins can use to manage the system, such as viewing and managing data on donations, users, top donors, disbursements, reports, incoming messages and posts. Admins can also confirm users and fundraisers to be approved to use this system or to raise funds in the Foundation system.

Figure 7. Admin Dashboard page

4. CONCLUSION

Based on the research results, it can be concluded that:

1. The development of a web-based financial information system will help the Ar-ruhama Foundation improve efficiency and accuracy in financial recording and monitoring.
2. The integration of this system with the reporting system will strengthen the transparency of foundation funds, giving donors and sponsors better access to ensure accountability.
3. Challenges in system development include a deep understanding of the foundation's needs and data security aspects to protect financial information.

Nonetheless, it is hoped that a web-based financial information system will help foundations achieve social and humanitarian goals more effectively and efficiently.

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