Indonesian Journal of Business Analytics (IJBA)
Vol. 5, No. 3 (June) 2025: 2466-2477

Design of Accounting Information System Based on VBA Excel at Islamic Boarding School X Based on Non-Profit Organization Standards

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ARTICLEINFO
Keywords: Accounting Information Systems, VBA Excel, ISAK 335, Islamic Boarding Schools, Non-Profit Organizations

Received : 20, April
Revised : 15, May
Accepted: 09, June

ABSTRACT
As a non-profit institution, Islamic boarding schools have an important role in education and character building of the community, but still face major challenges in financial management, especially in terms of transparency, accountability, and recording financial reports according to standards. This study aims to design and implement an Accounting Information System (AIS) based on VBA Excel that is adjusted to the ISAK 335 standard at Islamic Boarding School X. This study uses the Waterfall system development method which includes the stages of needs analysis, system design, implementation, verification, and maintenance.Data collection was conducted through observation, interviews, and literature studies on the financial management of Islamic boarding schools. The results of the study indicate that VBA Excel-based AIS can improve efficiency, accuracy, and speed in the process of recording and reporting finances. This system also facilitates the preparation of financial reports such as financial position reports, activity reports, and cash flow reports in accordance with non-profit organization standards. With the implementation of this system, Islamic boarding schools are expected to be able to improve accountability and transparency in fund management, so as to strengthen stakeholder trust and support the sustainability of the institution.

DOI: https://doi.org/10.55927/ijba.v5i3.14782
ISSN: 2808-0718
https://journal.formosapublisher.org/index.php/ijba

INTRODUCTION

A non-profit organization is a business entity established with the primary purpose of providing social, humanitarian, religious, or educational benefits, without seeking financial gain for its owners. These organizations typically focus on a social mission or community service, with all revenues earned being used to support the organization's core activities, rather than for distribution of profits to members or owners. In Indonesia, Islamic boarding schools, social foundations, and non-governmental organizations (NGOs) are increasingly growing and becoming one of the main pillars in helping the government achieve sustainable development goals.

According to Zimmerman (2015), a non-profit organization is an organization that has a social mission and aims to provide a positive impact on society without the aim of gaining personal profit. They often rely on public participation, donations, and government assistance to run their programs. Zimmerman emphasizes the importance of public participation and the role of government in supporting the sustainability and success of non-profit organizations.

The financial reporting of non-profit organizations aims to present and show all activities including its units, as well as the financial resources of the institution. In order to comply with applicable laws and regulations, non-profit organizations must increase accountability and transparency. This is very important because it helps them in the process of financial planning and management, as well as facilitating effective control. The standards of non-profit organizations refer to organizations that are not oriented towards profit or gain, but focus on achieving social, cultural, educational, Islamic boarding school, and other humanitarian goals.

The Indonesian Institute of Accountants (IAI) has issued guidelines for accounting records and financial statements for non-profit organizations known as ISAK 335 which will be effective on January 1, 2024. Interpretation of Financial Accounting Standards 335 provides guidelines for the preparation of financial statements for social institutions, including Islamic boarding schools. ISAK 335 regulates how non-profit financial statements should be prepared, covering aspects such as income statements, balance sheets, and cash flows, which must be prepared using generally accepted accounting standards. The issuance of ISAK 335 on the presentation of non-profit financial statements, there are still other obstacles in its application to non-profit financial statements, namely the lack of socialization regarding these applicable guidelines to the public, especially parties interested in non-profit organizations, where ISAK 335 is only socialized to practitioners and students through webinars held by the Indonesian Institute of Accountants, where not all people know this information. Therefore, it is necessary to hold wider socialization so that the guidelines governing the finances of non-profit organizations can be applied.

The implementation of ISAK 335 as a standard for non-profit organization financial reports has not been fully realized in all foundations including Islamic boarding schools. This can be seen from previous studies that also analyzed the implementation of ISAK 335. Fitria Agus Diningsih, Norita Citra Yuliarti and

Astrid Maharani (2023) conducted a study entitled Implementation of ISAK 335 to the Presentation of Financial Reports of Non-Profit Entities at the RA Amal Shaleh Foundation, and obtained the results that the RA Amal Shaleh Foundation has not implemented ISAK 335 in its financial reports, where the Foundation's financial reports only consist of cash receipts and expenditures obtained from BOP funds and SPP contributions. There are still many other Islamic boarding school foundations that have not been exposed, where their financial reports are still very simple and have not implemented ISAK 335 in their financial reports. One of them is an Islamic boarding school.

Islamic boarding schools as religious educational institutions have a very important role in shaping the character and personality of the young generation in Indonesia. In addition to being a center for religious education, Islamic boarding schools also function as social institutions that provide various facilities and programs for students, such as religious education, life skills, and self-development. Islamic boarding schools are Islamic educational institutions with a dormitory or pondok system, and a kiyai as a central figure, a mosque as a center of activities that inspires him and Islamic teachings under the guidance of a kiyai followed by students as their main activity. Fathoni et al. (2018). As an educational institution, Islamic boarding schools certainly have goals to be achieved. To find out the educational goals of Islamic boarding schools, it is necessary to first know about Islamic boarding schools themselves. An Islamic boarding school is considered to have credibility if it contains elements of a pondok, mosque, teaching of classical Islamic books, students and kiyai.

The problem currently faced by Islamic boarding schools is the limited human resources trained in accounting, this is an obstacle in structured financial reporting. Funding for Islamic boarding schools generally comes from various sources, such as donations, zakat, donations, and waqf. Funding from various sources is often not properly recorded in the accounting information system in accordance with accounting guidelines. The preparation of financial reports in Islamic boarding schools faces a number of quite complex problems, both in terms of technical and managerial. Many Islamic boarding school administrators, including foundation administrators and administrative staff do not have an accounting education background. As a result, the financial reports produced often do not comply with accounting standards, and do not reflect an accurate financial picture.

LITERATURE REVIEW

The literature review in this study provides a comprehensive understanding of the importance of implementing a simple technology-based Accounting Information System (AIS), especially VBA Excel, in supporting the financial management of non-profit institutions such as Islamic boarding schools. Previous studies such as those conducted by Ulil Zuhaidi (2019), Anisa Rahmatika (2021), and Angga Kusuma et al. (2024) show that a VBA Excel-based system is able to overcome the limitations of Islamic boarding schools in terms of cost, technology access, and ease of use, and is very helpful in the process of recording financial transactions automatically and in a structured manner. In the context of financial reporting standards, the study also shows that the implementation of ISAK 335 still faces various challenges, as expressed by Suhaini et al. (2024), Salsabila Audzah et al. (2024), and Nikmatul Aliyah (2019) who found that most Islamic boarding schools still use manual recording and do not understand the structure of financial reports such as financial position reports, cash flow, or changes in net assets according to standards. Obstacles that often arise include limited human resources who understand accounting, minimal training in the use of software, and low awareness of the importance of financial transparency in Islamic boarding schools. This study seeks to bridge this gap by designing an accounting information system that is in accordance with the characteristics of Islamic boarding schools through a simple but effective technological approach. By integrating the principles of ISAK 335 into the design of a VBA Excel-based system, it is hoped that this study can be a strategic solution that not only increases the efficiency of recording and reporting, but also strengthens accountability and public trust in the management of funds in religious-based educational institutions.

METHODOLOGY

The research method used is research and development. The research method also uses Qualitative Descriptive which aims to create a systematic, factual and accurate picture of the facts and characteristics of the population in a particular area. The qualitative data produced will be able to provide answers to the research conducted. This research was conducted on the waterfall model as an information system development methodology, with the Waterfall model this research is used to develop new products or improve existing products. The product is in the form of software such as a data processing program. The initial step in data collection uses literature studies. Literature studies are data collection methods that are directed at finding data and information through written documents, photos, images, or electronic documents that support the writing process.

This research method also uses the Project Based Research approach. This research approach focuses on solving real problems or developing a product through a specific project, namely a learning and research approach that combines accounting principles with real projects that are carried out systematically and based on research, which are relevant to the needs of financial management in the Islamic boarding school environment. Data were obtained directly from the financial managers of the Al-Muammiroh Cianjur Islamic Boarding School through interviews, observations, and discussions with the boarding school administrators regarding financial management, as well as the latest financial report documents. This research method combines an in-depth understanding of qualitative research with a structured system development process (waterfall), and is directed to produce real products (project based).

RESEARCH RESULT AND DISCUSSION

Implementation of Research Stages

The development of information technology provides a great opportunity for educational institutions, including Islamic boarding schools, to improve the efficiency and effectiveness of administrative and financial management. However, many Islamic boarding schools still use manual recording methods in their financial management, which are prone to recording errors, data duplication, and delays in the preparation of financial reports. This causes the need to design an Accounting Information System (AIS) that is in accordance with the needs and capabilities of Islamic boarding schools, one of which is by utilizing Microsoft Excel and Visual Basic for Applications (VBA) as a simple but functional system development platform. The stages of the research carried out have been implemented using the Waterfall system development model. With the waterfall approach, the research stages are carried out in stages, starting from needs analysis, system design, implementation, testing, evaluation, to final documentation. This model was chosen because it is in accordance with the conditions of the system development project where user needs have been known from the beginning and system changes that occur are very minimal.

Requirement Analysis

At this stage, information is collected related to the needs of the Islamic boarding school accounting system. The process of finding needs aims to find out the desires of users and the limitations of the software to be created. The interview process with several Islamic boarding school administrators to find out the problems in recording Islamic boarding school financial reports.

Design

After planning with the flowchart tool that has been created, the next step is to design the system using Microsoft Excel and Visual Basic Application software. This stage is used to design the structure and appearance of the system based on the needs that have been analyzed at the recruitment stage, becoming a representation in a program before the coding stage begins. Here are some plans in the design stage:

1) System Database Design
   a. Table Design

The table design in this system is the main foundation of the financial recording, reporting, and analysis process. With the right table structure, the transaction recording process becomes more consistent, data is easier to track, and financial reports can be generated automatically.

   b. Account List Table

This table is used to store information about accounts and balances, and includes the total opening balance. This table contains the account code, account name, position, normal balance, and opening balance (debit and credit).

c. General journal table

This table is used to record various types of transactions in general, including cash and cash equivalents, purchases, sales, etc. This table contains information about the date, reference, description, account code, account name, debit, credit, and balance amount. (balance)

d. Ledger Table

This table is used to organize data or transactions taken from the journal based on accounts. Each account has a ledger that stores its grouping. Determine the account code and account name. Entering transactions includes the transaction date, transaction name taken from the general journal according to the account code and account name.

e. Trial Balance Table

This table is used to show the ending balance of each account in the ledger. This table contains the account code, account name, and the total ending debit and credit balances.

f. Financial Position Report Table

This table is intended to convey information about the impact of transactions and other events that affect the amount and character of net assets and how resources are used in implementing programs or services. This table contains account codes and their descriptions.

g. Activity Report Table

This table is intended to provide information about the effects of transactions and other events that change the amount and nature of net assets and how resources are used in implementing programs or services. The table contains account codes, descriptions, and comparisons, as well as total balances for two periods.

h. Cash Flow Statement Table

This table aims to provide information about cash receipts and disbursements during a certain reporting period. Cash and cash equivalents are classified into operating, investing, and financing cash flows. This table contains information and a comparison of the amount of cash flow balances in two periods.

2) Creating a Design Program Using *Visual Basic for Application*

a. Displays the Developer Tab

First, you have to enable the developer tab in the excel menu. Then, go to the file menu and select options, then select Customize Ribbon. Then, the Main Tabs dialog box will appear on the right and make sure to check the Developer menu to enable it, then click OK.

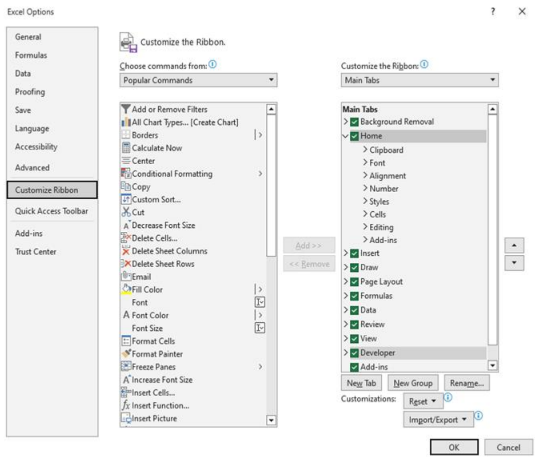

Figure 1. Tab Developer

b. Enable System Macros

This macro system aims to ensure that the VBA codes that will be entered can function properly and can run smoothly. The steps used to activate the macro system are to see the developer tab then click the macro system, after the Trust Center window appears, then select "Disable all macros with notification" in the macro setting column and check "Trust access to the VBA Project object model" then click OK.

Form Login

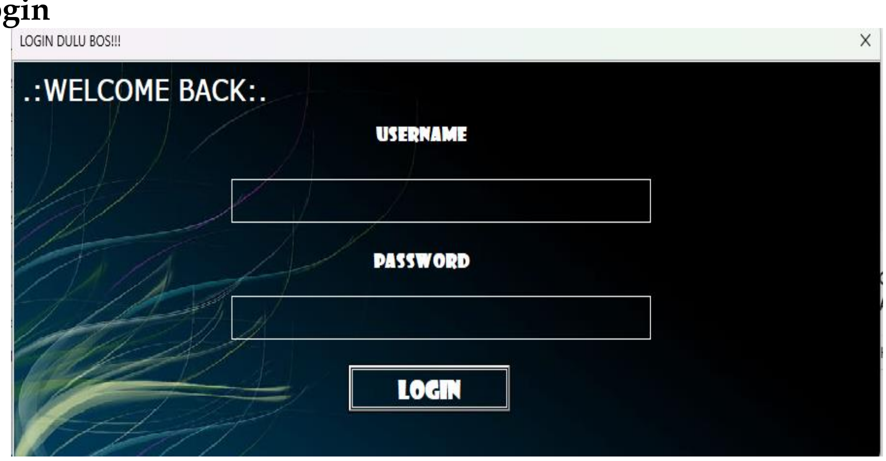

Figure 2. Login Form Page

Implemention

This stage is the process of developing the system according to the design that has been made. The system is developed using Microsoft Excel with additional VBA programming to create transaction input forms, automatic validation, and instant financial report preparation. Modules such as journal entries, activity report creation, and balance sheet recapitulation are developed and integrated into one main working file. The use of VBA speeds up the reporting process and minimizes data input errors.

1. Preparing The Worksheet

There are several sheets that will be used to create worksheets in this application.

2. Create an Application Menu

   The menu is the first working document that appears and is the main page that contains elements that contain a list of commands for the application to display a list of available tasks.

3. Create a Pesantren Profile

   This worksheet contains a brief profile of the Islamic boarding school, consisting of the name of the Islamic boarding school, the address of the Islamic boarding school, the management period, the head of the Islamic boarding school, the secretary of the Islamic boarding school and the treasurer of the Islamic boarding school.

4. Account Names

   Account names in Islamic boarding school accounting include accounts in the categories of current assets, non-current assets, short-term debt, long-term debt, unrestricted net assets, temporarily restricted net assets, permanently restricted net assets, restricted income, free income, and free expenses. The list of accounts used is compiled based on Islamic boarding school accounting guidelines.

5. Create a Transaction Partner

The partner account list itself consists of a transaction form with account code, partner name, type, opening balance, addition, reduction and ending balance. The data that has been entered will be automatically saved in the partner master worksheet, and integrated with other transaction modules, such as general journal input or activity reports. Thus, each transaction can be linked to a specific partner, making reporting and auditing easier.

6. Create a General Journal

The list of accounts in the journal is used in the accounting process to record all financial transactions that occur in a period. This is the initial step before transactions are transferred to the ledger. The name of this account includes the date, description, type, weight account, credit and amount.

7. Make a Ledger

The General Ledger is a collection of accounts used to record, group, and summarize transactions from the general journal systematically. The general ledger is the second stage after recording in the general journal in the accounting process.

8. Balance Sheet Worksheet

   Balance Sheet Worksheet (often called worksheet or accounting work paper) is a format or table used to compile and analyze financial data from general ledger accounts before financial reports such as balance sheets and income statements are prepared. This worksheet helps ensure that all accounts and balances are correct, and helps the process of preparing financial reports more easily and systematically.

9. Financial Position Statement Worksheet

   Financial Position Worksheet is part of the financial statement preparation process that is specifically used to prepare the Financial Position Report (Balance Sheet). This worksheet summarizes accounts related to assets, liabilities, receivables, inventory and equity based on the ending balance after adjustment.

10. Comprhensive Income Statement Sheet

Comprehensive Income Statement or Comprehensive Income Statement is a financial report that presents the financial performance of an entity during a certain period. This sheet includes revenue, expenses, profit and loss, and other components of comprehensive income that are not recorded in ordinary income. This worksheet is used to prepare a report that shows how much net profit or loss the company has earned, including the effects of unrealized transactions.

11. Cash Flow Statement Worksheet

Cash Flow Statement Worksheet is a worksheet used to prepare a Cash Flow Statement, which is a report that shows cash inflows and outflows during a period. This report helps understand how an entity generates and uses cash from operating, investing, and financing activities. This worksheet is usually created based on data from the income statement, balance sheet, and changes in cash accounts, and non-cash adjustments are made if the indirect method is used.

Verification

This stage is the system testing stage where the system is used by the treasurer of the Al-Muammiroh Cianjur Islamic boarding school. After the system is implemented, the system testing stage is carried out using the financial data of the Islamic boarding school. The verification stage aims to ensure that the accounting information system developed has been running according to functional needs, and meets the accounting standards of non-profit organizations. Verification is also carried out to ensure that the system can be used reliably and accurately by users, namely the financial or administrative staff of the Islamic boarding school. The test results are also used to improve the system, especially in terms of efficiency and ease of use.

Maintenance

The maintenance phase is the final part of the system design process based on the Waterfall method. Although the system has been designed, implemented, and tested, maintenance is needed to ensure that the system continues to run optimally, relevantly, and in accordance with the development of user needs.

Organizational Involvement

This study directly involves the Al-Muammiroh Cianjur Islamic Boarding School in providing permission and suggestions to conduct a more in-depth analysis related to the problems faced by the Islamic boarding school. In addition, the Al-Muammiroh Cianjur Islamic Boarding School also provides information on current conditions that are the main focus of the study. Another role that is owned also functions as a liaison to conduct research in the Islamic boarding school environment. With this role, research can develop data and analysis based on information obtained from within the Islamic boarding school, as a basis for creating an accounting information system which is the result of this study.

Research Output

The output of this study is information related to research activities, which is the result of a needs assessment obtained from the boarding school administrators who act as treasurers. Facts and data are collected through interviews, and the findings are used as the basis for designing an accounting information system.

The results of this study are in the form of an accounting information system that uses the "VBA Excel" application which includes financial reports, so that the boarding school administrators can be more transparent in understanding the boarding school's financial information system.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion Based on the results of the research and design of the VBA Excel-based accounting information system at Pesantren X, several things can be concluded as follows:

1. Needs of Accounting Information System Pesantren X as a non-profit organization has a need for transparent, accountable financial records that are in accordance with the principles of non-profit organization financial reporting. However, the manual system used previously was inefficient and had the potential to cause errors in recording and reporting.
2. Implementation of VBA Excel The design of an accounting information system using VBA (Visual Basic for Applications) in Microsoft Excel has proven effective in supporting automatic, fast, and structured recording of financial transactions. VBA Excel was also chosen because it is easy to access, cost-effective, and does not require expensive additional software.
3. Compliance with Non-Profit Organization Standards The designed system has been adjusted to financial reporting standards for non-profit organizations, such as classification between restricted and unrestricted funds, activity reporting, financial position, and cash flow. This makes it easier for the management of the pesantren to prepare financial reports in accordance with generally accepted accounting principles.
4. Increased Efficiency and Transparency The implementation of this accounting information system has a positive impact on the efficiency of transaction recording and increased transparency and accountability in fund management. This also supports the creation of better financial governance that can be accounted for to internal and external parties, including donors.

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