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CAPABILITY TO MANAGE FINANCIAL REPORTS FOR MSMES UTILIZING ACCOUNTING INFORMATION SYSTEMS

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ABSTRACT

Accounting Information Systems (AIS) are gaining importance in the management of financial reports for micro, small, and medium-sized enterprises (MSMEs) in the current digital era. The ability to effectively utilize AIS can help SMBs manage their finances more efficiently and precisely, thereby enhancing their performance and long-term success. By utilizing the appropriate AIS, MSMEs can obtain advantages such as more efficient and accurate transaction recording, improved financial analysis, and the ability to generate comprehensive and simple-to-understand financial reports. Utilizing accounting information systems, this study seeks to facilitate the management of financial reports from micro, small, and medium-sized enterprises. AIS is a system used to manage financial data and provide business proprietors with accurate and up-to-date financial information. By utilizing AIS, MSMEs can save time and energy when managing financial reports and making structured business decisions regarding data input and processing, particularly financial reports. The research yields an accounting information system with system features suitable for assisting and supporting MSMEs in managing financial management, such as managing customer data, sales data, purchase data, account data, general journal data, user data, sales reports, purchase reports, general journal reports, balance sheet reports, income statements, and capital change reports.

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1. INTRODUCTION

The development of computer technology as a supporting tool has an effect on every aspect of people's existence, as almost every aspect of modern life is inextricably linked to technology. As a result of its increased efficiency and effectiveness, computer technology has permeated every industry today [1]–[4]. Utilizing information technology is one method for resolving problems, one of which is financial reporting that occurs within a company's operations. Accounting information systems (AIS) are gaining importance in the management of financial reports for micro, small, and medium-sized enterprises (MSMEs) in the current digital era. The ability to utilize AIS effectively can assist SMEs in managing their finances more effectively and precisely, thereby enhancing business performance and long-term success [5]–[7]. With the rapid development of technology, MSMEs have access to a variety of AIS, spanning from desktop applications to online platforms that are integrated with multiple applications. By utilizing the appropriate AIS, MSMEs can obtain advantages such as more efficient and accurate transaction recording[8]–[10], improved financial analysis, and the ability to generate comprehensive and easily-understandable financial reports.

In general, an accounting information system can produce a company's financial statements to provide information about the flow of money for interested parties in order to provide a financial picture of the company.[11]–[13]. Financial statements are one of the important assets in a company because the evidence and data of transactions that occur can become information regarding the condition and financial

performance of a company in making decisions.[14]–[16]. In business, financial reports have a very important role in helping business owners make the right decisions. For MSMEs, accurate and detailed financial reports are very important to ensure the continuity of their business and improve long-term financial performance[17]–[19]. However, in managing these financial reports, MSMEs often face various obstacles, especially managing and recording data related to financial reporting in accounting.

Judging from the process flow of making financial reports, most MSMEs are still classified as using conventional management techniques or still using the MS Excel application, so that due to several obstacles, such as the finance department having difficulty managing transaction data, because the finance department has to recap transaction data taken from a different Microsoft Excel sheet or file[20]. In addition, the manual process of preparing financial reports also takes time so that delays in preparing financial reports can occur due to errors when preparing financial reports[21], [22], so it is necessary to have an SIA that can assist organizations in reducing the risk of human error in processing financial data, so as to produce financial reports that are computerized and in accordance with the data owned by MSMEs.

To overcome these obstacles, this study aims to be able to help manage financial reports for MSMEs by utilizing the Accounting Information System (SIA). SIA is a system used to manage financial data and provide accurate and up-to-date financial information to business owners. By using SIA, MSMEs can save time and effort in managing financial reports and making structured business decisions in terms of data input and processing, especially financial reports.

2. METHOD

Accounting information system

The Accounting Information System (AIS) is an information system specifically designed to manage the financial information of an organization, be it large companies or SMEs. SIA combines accounting concepts with information technology to produce accurate and reliable financial information. SIA enables organizations to process, record, present and analyze financial data automatically using information technology. SIA includes several modules, including accounting module, inventory module, sales module, purchasing module, and payroll module. In SIA, financial data is inputted into the system electronically and then processed by the system to produce accurate and reliable financial reports. SIA can also help organizations to monitor and control their finances more effectively,[23]. By using SIA, organizations can save time and money in managing their finances. SIA can also assist organizations in reducing the risk of human error in processing financial data, resulting in more accurate and reliable financial reports. In general, SIA is an information system specifically designed to manage an organization's financial information using information technology and accounting concepts. SIA is very important for organizations to obtain accurate and reliable financial information, as well as to save time and costs in financial management[24].

Waterfall Method

This system was developed using the cascade methodology. The waterfall method is used because it takes a systematic and sequential approach to creating a system[25], [26]. The waterfall method's process is that the work on a system is performed sequentially. The waterfall technique has the following stages:

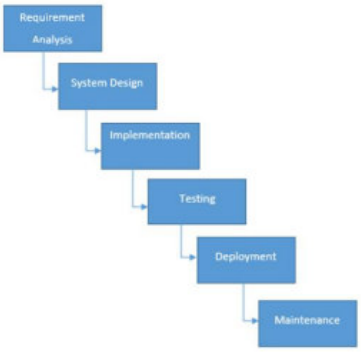

Figure 1. Waterfall Method Stages

Based on Figure 1, it can be explained that the waterfall method is a software development method that is carried out in a linear and structured manner. The stages in the waterfall method consist of:

1. Requirement Analysis: This stage involves identifying user or customer needs for the accounting information system. Requirements analysis is carried out by collecting information and user requirements, then producing requirements documents or functional specifications for accounting information systems.
2. Design: This stage involves designing an accounting information system based on the requirements documents that have been prepared during the needs analysis stage. At this stage, the design of an accounting information system consisting of a database structure is carried out[27], software architecture, and user interface. The purpose of this stage is to produce a detailed and structured design so that it can be implemented easily. The design of accounting information systems uses a structured approach, namely the design of Data Flow Diagrams (DFD) and User Interface Design.
3. Implementation: This stage involves developing an accounting information system based on the designs made in the previous stage. At this stage, implementation is carried out based on the accounting information system design that was prepared in the previous stage. Implementation can be done using a programming language that fits the system requirements.
4. Testing: This stage involves testing the accounting information system to ensure that the system conforms to predetermined specifications. At this stage, all functionality of the accounting information system is tested, both the main functionality and additional functionality. Testing is carried out using valid data and is carried out systematically[28].
5. Deployment: This stage involves the deployment of the accounting information system to users or customers. At this stage, the accounting information system is installed on the server and prepared for use by users or customers. This stage also involves training users to be able to use the accounting information system properly.
6. Maintenance: This stage involves maintaining the accounting information system after it has been implemented. At this stage, continuous maintenance of the accounting information system is carried out to ensure that the system continues to function properly and avoid damage. Maintenance includes bug fixes, feature updates, and technical support to users[29].

3. RESULT AND DISCUSSION

Requirements Analysis and System Design

The needs analysis stage is based on data analysis, the needs analysis built in this study focuses on analyzing the needs for the functionality of accounting information systems in facilitating MSMEs in digitizing sales, purchasing transactions, managing goods data, managing general journals, account data and generating financial reports.

The system design stage is adjusted to the needs analysis so that a list of processes that must exist in an accounting information system is obtained, the design of an accounting information system uses a data flow diagram which begins with designing a context diagram. Context diagram which describes the processes that occur in all systems to be designed, in the context diagram consists of three entities, namely: admin, MSME owner and the finance department. This system will also produce accounting and financial reports that will be received by the MSME owner or manager. The process context diagram is shown in Figure 2 Context Diagram.

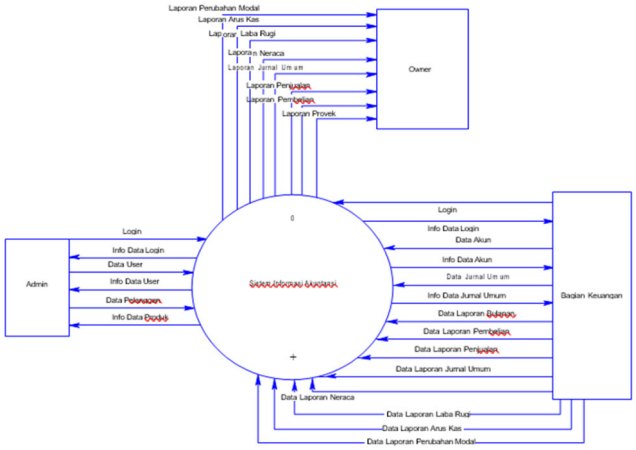

Figure 2. Context Diagram of Accounting Information Systems

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System Implementation

At the stage of system implementation, it is adjusted to the functional requirements analysis of accounting information system features. The following is the interface of the accounting information system for MSME financial management.

1. Dashboard Interface page

The dashboard page is intended to display information about total sales, total purchases and remaining cash as well as displaying sales and purchases graphs. The dashboard page can be seen in Figure 3 below.

Figure 3. Dashboard Interface Page

2. Customer Data Interface Page

The customer data page is the page used by the finance department. Where, on this page the finance section can add, change and search for customer data. The customer data page can be seen in Figure 4 below.

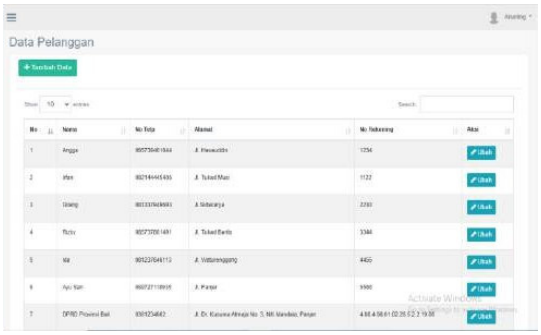

Figure 4. Customer Data Interface Page

3. Account Data Interface Page

The account data page is a page that displays account data used by the finance department to generate reports. On this page, the finance section can add, change and search for account data. The account data page can be seen in Figure 5 below.

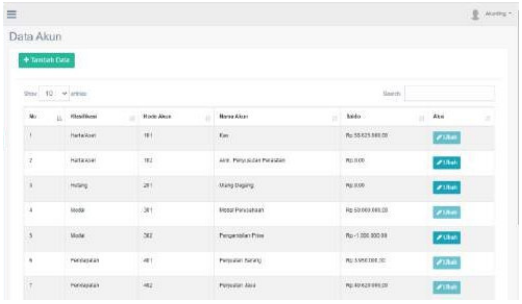

Figure 5. Account Data Interface Page

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4. General Journal Interface page

The general journal page is the page used by the finance section to display general journal data which will later be used by the finance section to make reports. On this page, the finance section can add, modify and search for general journal data. The general journal page can be seen in Figure 6 below.

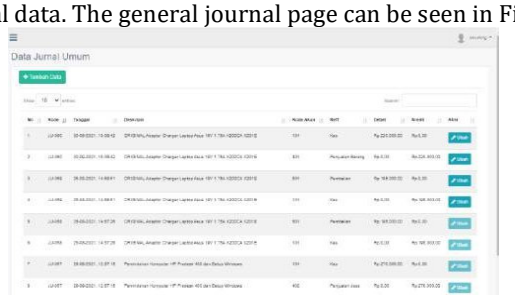

Figure 6. General Journal Interface Page

5. Purchase Data Interface Page

The purchase data page is the page used by the admin to display, add, change and search for purchase data. The purchase data page can be seen in Figure 7 below.

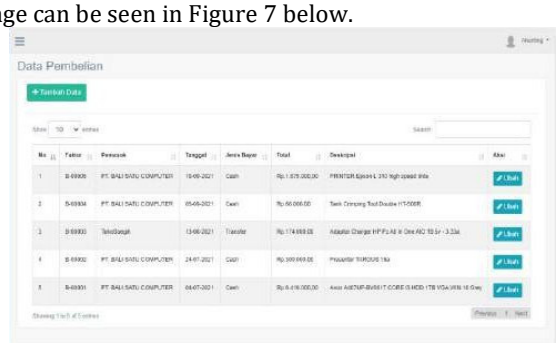

Figure 7. Purchase Data Interface Page

6. Sales Data Interface Page

The sales data page is the page used by the admin to display, add, change and search for sales data. The sales data page can be seen in Figure 8 below.

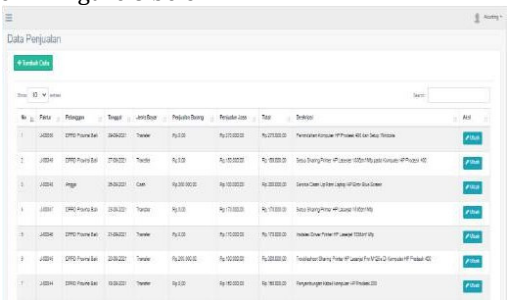

Figure 8. Sales Data Interface Page

7. Capital Change Report page

The capital change report page is the page used by the MSME owner or manager to view reports on capital changes per period according to the date entered by the user. The capital change report page can be seen in Figure 9 below.

Figure 9. Capital Change Report Page

8. Sales Report Page

The sales report page is the page used by the owner to view sales data that has been entered by the finance department per period. The sales report page can be seen in Figure 10 below.

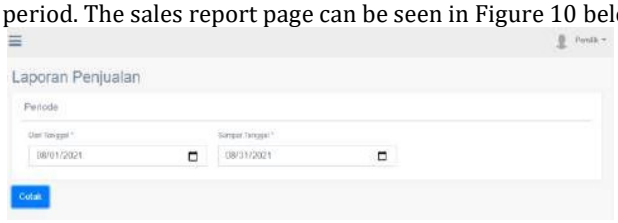

Figure 10. Sales Report Page

9. Purchase Report Page

The purchase report page is the page used by the owner to view purchase data that has been entered by the finance department per period. The purchase report page can be seen in Figure 11 below.

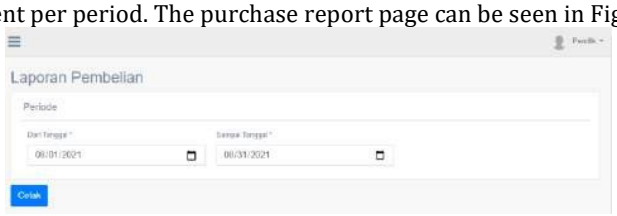

Figure 11. Purchase Report Page

10. General Journal Report page

The general journal report page is the page used to view general journal data that has been entered by the finance department per period according to the date entered by the user. The general journal report page can be seen in Figure 12 below.

Figure 12. General Journal Report Page

11. Profit and Loss Report page

The income statement page is the page used by the owner to view the income statement per period according to the date entered by the finance department. The income statement page can be seen in Figure 13 below.

Figure 13. Profit and Loss Report page

12. Balance Sheet Report page

The general journal report page is the page used by the owner to view the balance sheet report per period according to the date entered by the finance department. The balance sheet report page can be seen in Figure 14 below.

Figure 14. Balance Sheet Report Page

3.3 System Testing

The system testing phase uses blackbox testing, which is a testing technique to check the suitability of the system functionality whether it is running validly and in accordance with the scenario being run[30]on each feature page of the financial information system. The process of checking each feature and process on the menu button is made in a test scenario based on an analysis of user needs so that there is no error display on the system when accessed. Blackbox testing can be seen in Table 1 below.

Table 1. System Testing

No	System Features	Result Scenarios
1	Dashboard interface page	Valid and Success
2	Customer Interface page	Valid and Success
3	Account interface page	Valid and Success
4	General journal interface page	Valid and Success
5	Sales interface page	Valid and Success
6	Purchase interface page	Valid and Success
7	Report interface page	Valid and Success

Based on table 1 above, it can be explained that from the results of system functionality testing using blackbox testing, the results show that all system features have been running successfully and in accordance with the needs analysis and design.

4. CONCLUSION

The conclusion of the conducted research is that it has been successful in constructing a financial information system for MSMEs that is tailored to the requirements analysis to determine the appropriate system features for assisting and supporting MSMEs in financial management. System features include customer data management, supplier data management, sales data management, purchase data management, account data management, general journal data management, user data management, sales reports, purchase reports, general journal reports, balance sheet reports, income statements, and capital change reports. Seven system functionalities were tested using blackbox testing, and the results indicate that all system features ran successfully and in accordance with the requirements analysis and design. Suggestions for future research may include user experience trials with MSME users in order to evaluate the system's user experience and the addition of other system features that can improve the accuracy of accounting reporting in MSMEs.

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