

The Impact of Implementing SIA and Internal Controls on the Quality of Financial Statements at the PDAM Bireuen Office

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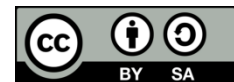
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ABSTRACT

This study aims to determine the effect of accounting information systems and internal control on the quality of financial statements at PDAM Krueng Peusangan, Bireuen Regency. The research uses a quantitative approach with an associative method. The population consists of 104 employees, while 73 respondents were selected using purposive sampling based on criteria of employees directly involved in the preparation, recording, and reporting of financial statements. Data were collected through questionnaires and analyzed using multiple linear regression with the assistance of SPSS version 25. The regression analysis results indicate that the accounting information system (X_1) has a positive and significant effect on the quality of financial statements, with a significance value of $0.000 < 0.05$. The internal control variable (X_2) also has a positive and significant effect with a significance value of $0.000 < 0.05$. Simultaneously, both variables significantly influence the quality of financial statements with a determination coefficient (R^2) of 0.569. Thus, the better the implementation of the accounting information system and internal control, the higher the quality of financial statements produced by PDAM Krueng Peusangan.

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1. Introduction

The development of information technology in the current era of globalization has brought major changes in the world of accounting and financial reporting. Organizations, both public and private sectors, are required to be able to utilize technology in managing financial data so that the reporting process becomes more effective, efficient, and accurate. One form of utilizing technology in the field of accounting is the implementation of the Accounting Information System (SIA). This system functions to collect, record, store, and process financial transaction data so as to produce information that is useful for internal and external parties of the organization. According to Mulyadi (2016), an accounting information system

is a component of a management information system that is used to produce financial information for managerial decision-making and control of organizational activities.

The implementation of a good accounting information system can improve the quality of the financial information produced, because the recording and reporting processes are carried out in an integrated and automated manner. This can reduce the occurrence of human error and speed up the process of preparing financial statements. However, the successful implementation of an accounting information system depends not only on the software and technology used, but also on the effectiveness of internal controls within the organization. Internal controls have an important role in maintaining data reliability, preventing fraud, and ensuring that every financial transaction is in accordance with applicable procedures and policies.

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), internal control is a process designed to provide adequate confidence in the achievement of an organization's objectives, including the effectiveness and efficiency of operations, the reliability of financial reporting, and compliance with regulations and legislation. Thus, good internal control will create an orderly and directed work environment, as well as provide a basis for the preparation of quality financial statements.

The quality of financial statements is one of the main indicators in assessing the performance and accountability of an organization. Quality financial statements must have relevant, reliable, comparable, and easy-to-understand characteristics. In the context of public organizations or regional companies, the quality of financial statements also reflects the level of transparency and accountability of public financial management. Therefore, organizations such as PDAM are required to produce financial reports that are not only in accordance with accounting standards, but also can be trusted and used as a basis for strategic policy making.

PDAM Krueng Peusangan Bireuen Regency is one of the regionally owned enterprises (BUMD) that has an important role in providing clean water for the people of Bireuen Regency and its surroundings. As a public institution, PDAM is required to have a good accounting information system so that the financial statements produced are accurate and accountable. Based on initial observations, there are still several obstacles in the management of the PDAM financial system, such as transaction recording that is not fully computerized, lack of optimal integration between parts, and weak internal supervision system. This condition can cause the financial statements produced to not fully reflect the actual financial condition and have the potential to reduce the quality of the information presented.

This phenomenon shows that the effectiveness of the accounting information system and the strength of internal control greatly determine the quality of the financial statements produced by PDAM Krueng Peusangan. In other words, the better the accounting information system is implemented and the stronger the internal controls are carried out, the higher the level of reliability and quality of the financial statements produced. Therefore, it is important to conduct research that aims to empirically test the extent to which these two factors affect the quality of financial statements at PDAM Krueng Peusangan, Bireuen Regency.

This research refers to signaling theory which explains that quality financial reports provide positive signals to stakeholders about the performance and credibility of the organization. Financial information presented honestly and accurately will increase public trust and strengthen the organization's image in the eyes of the public. The results of previous research also support the relationship between accounting information systems, internal controls, and the quality of financial statements. Research by Anas, Nilawati, and Ayu (2023) found that the implementation of accounting information systems and internal control has a significant effect on the quality of financial statements in public sector organizations. Meanwhile, Apriani and Henni (2021) concluded that effective internal control can minimize errors and improve the reliability of financial statements.

Based on this description, this study was conducted to find out: (1) the influence of accounting information systems on the quality of financial statements; (2) the effect of internal control on the quality of financial statements; and (3) the effect of simultaneous accounting and internal control information systems on the quality of financial statements at PDAM Krueng Peusangan, Bireuen Regency. The results of this research are expected to contribute to the development of accounting science, as well as become a consideration for PDAM management in increasing the effectiveness of accounting information systems and strengthening internal control systems to realize more quality, transparent, and trustworthy financial reporting.

2. Research Methods

This study uses a quantitative approach with the type of associative research, which aims to determine the relationship and influence between independent variables and empirically bound variables. This approach was chosen because it is able to explain the influence of accounting information systems and internal control on the quality of financial statements through measurable statistical analysis.

The population in this study is all employees of PDAM Krueng Peusangan, Bireuen Regency, which totals 104 people. The population includes employees of finance, accounting, administration, and other work units related to financial preparation and reporting. Due to time constraints and effectiveness considerations, not all members of the population were made respondents. Therefore, this study uses the purposive sampling technique, which is a sampling method based on certain considerations or criteria that are relevant to the research objectives.

The criteria used in determining the sample include:

- a. Employees who are directly involved in the process of compiling, recording, and reporting finances; and
- b. Employees who understand the accounting information system and internal control within PDAM Krueng Peusangan.

Based on these criteria and referring to the Isaac & Michael table with an error rate of 5%, a sample of 73 respondents was obtained from a total population of 104 people. This number is considered representative to describe the condition of the population and adequate for statistical analysis.

The data used in this study is primary data, which was obtained through the distribution of questionnaires to respondents. The questionnaire was compiled based on the indicators of each research variable and was measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Before deployment, validity and reliability tests are carried out to ensure the reliability of the research instrument.

The data analysis technique includes several stages, namely validity test, reliability test, and classical assumption test (which includes normality, multicollinearity, and heteroskedasticity tests). After the data is declared to meet the classical assumptions, multiple linear regression analysis is carried out to test the influence of the accounting information system (X_1) and internal control (X_2) on the quality of financial statements (Y).

The regression model used in this study is:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Description:

Y = Quality of Financial Statements

X_1 = Accounting Information System

X_2 = Internal Control

a = Constanta

b_1, b_2 = Coeficin Regression

e = Error

To test the significance of the relationship between variables, the t-test (partial) and the F-test (simultaneous) were used, while the determination coefficient (R^2) was used to measure the extent to which independent variables explained variations in dependent variables. The entire data processing process is carried out with the help of the Statistical Package for the Social Sciences (SPSS) version 25 program.

3. Result and Discussion

Results of the Instrument Validity and Reality Test

The research instruments in this study were analyzed using the Pearson correlation technique (Product Moment) to test the validity of the statement items and the reliability test with Cronbach's Alpha to measure the level of internal consistency between the question items in the questionnaire. The results of the validity test showed that all statement items in the three research variables, namely Accounting Information System (X_1), Internal Control (X_2), and Financial Statement Quality (Y) had a value of r calculated $> r$ table (0.235) with a significance value of < 0.05 . Thus, all question items are declared valid and suitable for use as a measuring tool in this study.

Furthermore, the results of the reliability test showed that each variable had a Cronbach's Alpha value of > 0.60 , which indicates that all research instruments were reliable and reliable. In detail, the results of the reliability test showed: Accounting Information System (X_1) = 0.922, Internal Control (X_2) = 0.923, Financial Statement Quality (Y) = 0.927. These values are far above the minimum reliability limit of 0.60, so the questionnaire in this study is stated to have an excellent level of reliability and can be used for further analysis.

Classic Assumption Test

Normality Test

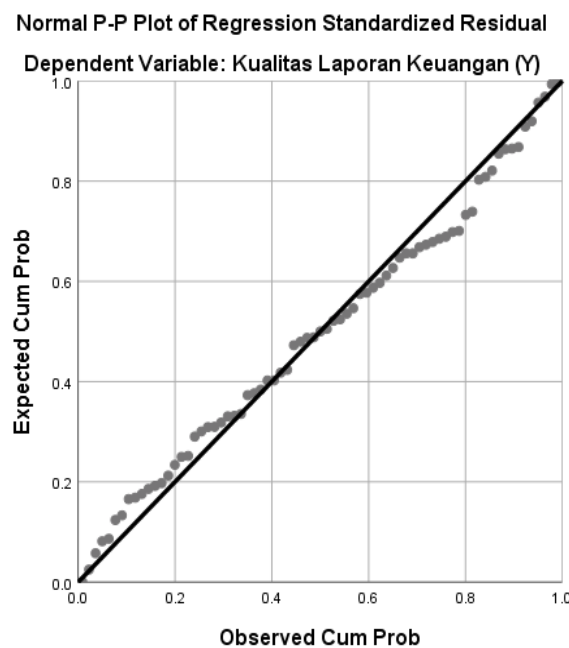


Figure 1. P-Plot Normality Chart

Based on the Normal P-P Plot graph above, it can be seen that the residual points are spread along a diagonal line. This shows that the residual data is distributed normally, so that the normality assumption in the regression model has been met.

Multicollinearity Test

Table 1. Multicollinearity Test

Variabel	Collinearity Statistics	
	Tolerance	VIF
Accounting Information System	0.944	1.060
Internal Control	0.944	1.060

Source: Results of Data Research in SPSS 25 (2025)

The results of the collinearity statistics test, showing a Tolerance value of 0.944 (> 0.10) and VIF of 1.060 (< 10), it can be concluded that the regression model in this study is free from the symptoms of multicollinearity. This means that independent variables (Accounting Information System and Internal Control) do not overlap with each other, so the regression model is valid and suitable for future analysis.

Heteroskeativity Test

Table 2. Uji Glejser

Variabel	Sig. (p-value)	Information
Accounting Information System	0.157	Heteroscedasticity does not occur
Internal Control	0.669	Heteroscedasticity does not occur

Source: Results of Data Research in SPSS 25 (2025)

The results of the Glejser test obtained a significance value (Sig.) for the Accounting Information System variable of 0.157 and Internal Control of 0.669. Since both are greater than 0.05, it can be concluded that the regression model does not contain symptoms of heteroscedasticity.

Multiple Linear Regression Analysis

Table 3. Multiple Linear Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	0.912	2.778	
Accounting Information System	0.554	0.081	0.554
Internal Control	0.409	0.083	0.397

Source: Results of Data Research in SPSS 25 (2025)

The results of multiple linear regression analysis show similarities:

$$Y = 0.912 + 0.554X_1 + 0.409X_2 + e$$

Thus, the results of the regression analysis show that the constant of 0.912 is not significant. The Accounting Information System variable (X_1) has a regression coefficient of 0.554 with a t-value of 6.83 (Sig. < 0.05), while the Internal Control variable (X_2) has a regression coefficient of 0.409 with a t-value of 4.92 (Sig. < 0.05). So, the two independent variables have a positive and significant effect on the Quality of Financial Statements.

Correlation and Determination Coefficient (R^2)

Table 4. Correlation Coefficient and Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.754a	0.569	0.557	3.255

Source: Results of Data Research in SPSS 25 (2025)

Based on the table above, the results of the correlation and determination test showed an R value of 0.754 which means that there is a strong relationship between independent and dependent variables. The Adjusted R Square value of 0.557 indicates that 55.7% of the variation in Financial Statement Quality can be explained by the variables of the Accounting and Internal Control Information System, while the remaining 44.3% is influenced by other factors outside the study.

Partial Hypothesis Testing (t-test)

Table 5. Test Results t

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.912	2.778		0.328	0.744
	Accounting Information System	0.554	0.081	0.554	6.856	0.000
	Internal Control	0.409	0.083	0.397	4.914	0.000

Source: Results of Data Research in SPSS 25 (2025)

The results of the regression calculation show that the Ha1 hypothesis is accepted, this means that the accounting information system has a partial effect on the quality of financial statements with a significant value of $0.000 < 0.05$. The results of the regression calculation show that the Ha2 hypothesis is accepted, this means that internal control has a partial effect on the quality of financial statements. The Ha2 is shown with a significant value of $0.000 < 0.05$.

Simultaneous Hypothesis Testing (f-test)

Table 6. Test Results f

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	978.565	2	489.283	46.173	0.000b
	Residual	741.763	70	10.597		
	Total	1720.329	72			

Source: Results of Data Research in SPSS 25 (2025)

Based on the table above, the results of the F test show that the F value is calculated as 46.173 with a significance of $0.000 (< 0.05)$. The results of the regression calculation show that the Ha3 hypothesis is accepted. This means that the variables of the accounting information system and internal control simultaneously have a significant effect on the quality of financial statements.

The Influence of Accounting Information Systems on the Quality of Financial Statements

The results of the t-test showed that the Accounting Information System variable had a positive and significant effect on the Quality of Financial Statements with a coefficient value of 0.554 and Sig. = $0.000 (< 0.05)$. This indicates that the better the implementation of the accounting information system, the better the quality of the financial statements produced.

The results of this study are in line with the findings of Malik, et al. (2023) who stated that the accounting information system has a significant effect on the quality of financial

statements at PT. Gorontalo Prima Installation Certificate. In addition, this research is also supported by Gusherinsya & Samukri (2020) and Engko & Djamaluddin (2022) who found that the application of accounting information systems has a positive and significant effect on the quality of financial statements. Thus, it can be concluded that an integrated and reliable accounting information system is able to improve the accuracy, timeliness, and reliability of financial statements.

The Effect of Internal Control on the Quality of Financial Statements

The results of the t-test showed that Internal Control had a positive and significant effect on the Quality of Financial Statements with a coefficient value of 0.409 and Sig. 0.000 (< 0.05). This means that the better the internal control system implemented by PDAM Krueng Peusangan, the better the quality of the financial reports produced.

The results of this study support the findings of Apriani & Henni (2021) who found that internal control has a significant effect on the quality of financial statements in the North Sumatra Police Financial Task Force. In addition, Malik, et al.'s (2023) research also states that internal control has a significant effect on the quality of financial statements. Thus, these results confirm the importance of implementing an effective internal control system to minimize errors and fraud, so that the financial statements produced can be more reliable and accurate.

The Simultaneous Effect of Accounting and Internal Control Information Systems on the Quality of Financial Statements

The results of the F test show that the variables of the Accounting and Internal Control Information System simultaneously have a significant effect on the Quality of Financial Statements with a value of F calculated as 46.173 and Sig. 0.000 (< 0.05). The determination coefficient (Adjusted R^2) of 0.557 indicates that 55.7% of the variation in the quality of financial statements can be explained by the two variables together.

The results of this study are in line with the research of Malik, et al. (2023) which found that accounting information systems and internal control simultaneously have a significant effect on the quality of financial statements. This finding is also supported by Hari Purnama (2020) who states that the application of an accounting information system together with other factors is able to improve the quality of financial statements partially or simultaneously. Thus, the results of this study strengthen the empirical evidence that the existence of a good accounting information system, supported by adequate internal controls, will create better quality financial reports.

4. Conclusion and Suggestions

Conclusion

Based on the results of research that has been conducted on the influence of accounting information systems and internal control on the quality of financial statements at PDAM Krueng Peusangan, Bireuen Regency, it can be concluded that these two variables have a positive and significant effect on the quality of financial statements. This shows that the

better the implementation of the accounting information system and the stronger the internal control that is carried out, the higher the quality of the financial statements produced. An effective accounting information system is able to provide accurate, timely, and relevant financial information, making it easier for management to make decisions. Meanwhile, good internal controls play an important role in maintaining data reliability, preventing errors, and ensuring compliance with the company's financial policies. Simultaneously, these two variables play an important role in increasing accountability and transparency of financial reporting, so as to strengthen public confidence in the performance of PDAM Krueng Peusangan Bireuen Regency.

Suggestion

Based on the results of the research obtained, it is suggested that the management of PDAM Krueng Peusangan Bireuen Regency can continue to strengthen the implementation of the accounting information system, both through improving the quality of human resources, updating accounting software, and optimizing system integration between departments. In addition, it is necessary to strengthen the internal control function by emphasizing the division of tasks, improving the internal audit function, and ensuring that every financial transaction is in accordance with applicable procedures. For the next researcher, it is recommended to add other variables such as employee competence, corporate governance, or the use of information technology so that research on factors that affect the quality of financial statements becomes broader and more comprehensive.

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