The Impact of Accounting Information Systems, Internal Audit, and Human Resource Quality on Employee Performance at PT. Bumi Berdikari Sentosa

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ABSTRACT

This study aims to examine the influence of accounting information systems, internal audit, and the quality of human resources on employee performance at PT. Bumi Berdikari Sentosa. The data collection method employed in this research is a questionnaire. The population consists of all 55 employees of PT. Bumi Berdikari Sentosa, with a sample of 45 employees selected through purposive sampling. The data analysis techniques used include descriptive analysis, data quality testing, classical assumption testing, multiple linear regression analysis, hypothesis testing, and the coefficient of determination test. The findings reveal that the accounting information system has a significant positive effect on employee performance. In contrast, internal audit does not show a significant effect on employee performance. Meanwhile, the quality of human resources significantly influences employee performance.

Keywords: Accounting Information System, Internal Audit, Human Resource Quality, Employee Performance

1. Introduction

Employee performance is a critical factor in achieving a company's objectives. According to Mangkunegara (2005), performance refers to job performance or actual performance, meaning the quality and quantity of work achieved by an employee in carrying out their duties in accordance with the responsibilities assigned to them. Optimal employee performance is demonstrated through their ability to think critically, act efficiently, and possess the necessary skills, all of which contribute significantly to enhancing organizational performance without deviating from the company's core values (Gunawan, Juniarti, & Nurcholisah, 2024; Kuo & Yang, 2023; Khan & Ali, 2023).

At PT. Bumi Berdikari Sentosa, several performance-related issues have been identified. These include delays in departmental reporting, low employee discipline as evidenced by frequent absenteeism, and the presence of fresh graduates with limited work experience, despite holding undergraduate degrees. For instance, monthly departmental reports are often submitted late, contrary to management's expectations. Moreover, employee absences were notably high throughout 2020.

A preliminary survey conducted during the company's 2019 financial report preparation revealed a significant discrepancy involving a stale-dated check returned by vendor CV. Golden Abadi Sentosa. Although payment was allegedly made in May 2020, the vendor claimed non-receipt and demanded payment again in September 2020. This incident exposed weaknesses in internal controls and accounting processes, which at the time were managed manually using Excel spreadsheets—a method prone to error and inefficiency (Junaidi, 2022; Al-Okaily, 2024; Lee & Kim, 2023).

An interview with the President Director of PT. Bumi Berdikari Sentosa further highlighted systemic issues: "In 2018 and 2019, the company hadn't implemented a proper system, which led to discrepancies in financial reporting and the discovery of a check fraud incident. The internal auditor, who was more focused on tax matters than auditing, failed to detect these issues despite regular monthly audits" (Personal Communication, January 7, 2021). This scenario illustrates the inadequacy of using spreadsheets for financial management and the critical need for a robust accounting information system (AIS) (Supraja & Barus, 2023; Wardhani et al., 2023; Vo Van, Abu Afifa, & Saleh, 2024).

An effective AIS helps companies generate accurate and timely information, thereby facilitating internal and external decision-making. By transitioning from manual to automated systems, employees can complete tasks more efficiently, which significantly enhances overall performance (Hartoko & Fitri, 2024; Khalid & Kot, 2021; Mithas & Lucas, 2023). Studies confirm that implementing AIS positively affects employee performance through improved data processing and workflow management (Alavi & Leidner, 2023; Rahmawati, 2018).

In addition to AIS, the role of internal audit is vital. Despite having an internal auditor, PT. Bumi Berdikari Sentosa still experienced fraud and unresolved discrepancies, suggesting that the existing audit function lacked competence. Internal audit should not only assess financial accuracy but also ensure compliance with management policies and detect potential fraud (Wazan, Suparmi, & Juniarto, 2023; Jahroni, Sinambela, & Mardikaningsih, 2022). Research shows that strong internal audit functions contribute significantly to enhancing employee performance by identifying inefficiencies and recommending improvements (Davenport, 2019; Kieso, Weygandt, & Warfield, 2016).

Another determining factor is the quality of human resources (HR). High-quality HR is characterized by employees' ability to effectively carry out their responsibilities with professionalism, leveraging their knowledge, skills, and time effectively (Khan & Ali, 2023; Wazan et al., 2023). Employees at PT. Bumi Berdikari Sentosa, though well-educated, often lack the practical experience required to perform optimally. Prior studies emphasize that HR quality is closely linked to employee productivity and organizational success (Vo Van et al., 2024; Khalid & Kot, 2021).

This study expands upon previous research on the effect of accounting information systems on employee performance at PT. Iron Bird Logistics, conducted by Politeknik Pos Indonesia. Unlike the previous study, this research includes two additional independent variables—internal audit and HR quality—which are critical to improving employee performance (Gunawan et al., 2024; Jahroni et al., 2022). The aim is to analyze whether improvements in these three areas can lead to better performance outcomes at PT. Bumi Berdikari Sentosa.

2. Literature Review

Employee Performance

Employee performance, often referred to as *job performance* or *actual performance*, represents the quality and quantity of work achieved by an individual in carrying out their responsibilities. Performance is not limited to outcomes but also includes the processes involved in accomplishing those outcomes, such as discipline, timeliness, responsibility, and cooperation (Mangkunegara, 2005; Gunawan, Juniarti, & Nurcholisah, 2024). A high-performing employee demonstrates the ability to think critically, act skillfully, and adhere to company values, thereby contributing to organizational objectives (Mithas & Lucas, 2023; Kuo & Yang, 2023).

Employee performance can be evaluated through several aspects, including:
- The quality and quantity of work outcomes,
- Discipline and punctuality in completing tasks,

- The ability to work independently or within teams, regardless of supervision.

These dimensions reflect the employee's contribution toward achieving the goals and standards set by the organization (Mangkunegara, 2005).

Accounting Information Systems

An Accounting Information System (AIS) is a structured system that processes data and transactions to produce information useful for business planning, control, and operations. AIS integrates both physical and non-physical components to convert financial transactions into actionable financial reports (Hartoko & Fitri, 2024; Supraja & Barus, 2023).

AIS is designed to simplify and accelerate employees' work processes, particularly in financial reporting, by minimizing manual inputs and increasing accuracy. The use of AIS has been proven to significantly enhance employee performance by enabling better access to data, quicker decision-making, and improved task management (Lee & Kim, 2023; Khalid & Kot, 2021). Moreover, the system's ease of use plays a critical role in determining its effectiveness in improving employee productivity (Vo Van, Abu Afifa, & Saleh, 2024).

Internal Audit

Internal audit is defined as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. Its role includes evaluating internal controls, ensuring compliance with company policies, and assessing financial reporting accuracy (IIA, in Messier, 2005; Wazan, Suparmi, & Juniarto, 2023).

Effective internal audit systems contribute to fraud prevention, operational efficiency, and risk mitigation. They support management by ensuring that the organization's procedures are implemented effectively and in accordance with policy (Davenport, 2019; Kieso, Weygandt, & Warfield, 2016). In contrast, the lack of a competent audit team can lead to undetected discrepancies, as demonstrated in PT. Bumi Berdikari Sentosa, where internal auditors failed to prevent or detect financial fraud due to a mismatch between the auditor's educational background and assigned responsibilities (Gunawan et al., 2024).

Human Resource Quality

The quality of human resources refers to the knowledge, skills, and abilities possessed by individuals, which enable them to carry out tasks efficiently and professionally (Khan & Ali, 2023; Alavi & Leidner, 2023). High-quality human resources not only fulfill organizational roles but also create competitive and innovative value through intelligence, creativity, and imagination.

According to Junaidi (2022), human resource quality encompasses:

- **Knowledge**: the employee's understanding and mastery of theoretical and practical information,
- **Skills**: technical and operational competencies relevant to their tasks,
- **Abilities**: including loyalty, discipline, teamwork, and accountability.

The alignment between these attributes and job requirements significantly enhances individual and organizational performance (Wazan et al., 2023; Vo Van et al., 2024).

Previous Research and Research Gap

Previous studies, such as the one by Hartoko and Fitri (2024), have analyzed the influence of Accounting Information Systems on employee performance in PT. Iron Bird Logistics. However, this study expands the model by introducing two additional variables—internal audit and human resource quality—as these have proven to be critical factors in ensuring effective employee performance. Jahroni, Sinambela, and Mardikaningsih (2022) highlighted the importance of internal audit in improving the efficiency of accounting staff, while research by Wardhani, Waluyo, and Agustina (2023) emphasized leadership and audit

roles in employee quality. Additionally, research by Rahmawati (2018) and Junaidi (2022) confirmed the significance of HR quality in improving productivity and organizational efficiency.

Thus, this study aims to fill the research gap by examining the simultaneous effects of AIS, internal audit, and HR quality on employee performance, particularly in PT. Bumi Berdikari Sentosa.

Hypotheses Development

Based on the literature above, the hypotheses proposed in this research are as follows:

H1: The implementation of Accounting Information Systems has a significant positive effect on employee performance.

H2: Internal Audit has a significant positive effect on employee performance.

H3: Human Resource Quality has a significant positive effect on employee performance.

3. Methodology

This study employs a quantitative descriptive method using a survey approach. The data sources used in this research consist of primary and secondary data. The research was conducted at PT. Bumi Berdikari Sentosa, located at Jalan Kaharuddin Nasution No. 01/988ABC, Simpang Tiga, Bukit Raya, Pekanbaru, Riau.

The population in this study comprises all employees of PT. Bumi Berdikari Sentosa, totaling 55 individuals, which includes the Board of Directors, Board of Managers, and other staff members (HRD, 2021). The sampling technique used is saturation sampling (also known as census sampling), where the entire population is used as the sample.

The data collection method employed in this research is the questionnaire technique.

To analyze the data, this study utilizes multiple linear regression analysis. This technique is used to examine the influence of independent variables—including accounting information systems, internal audit, and human resource quality—on the dependent variable, which is employee performance. Additional analysis methods include descriptive statistics, data quality tests, classical assumption tests, hypothesis testing, and the coefficient of determination (R^2).

4. Results and Discussion

Descriptive Statistics

Descriptive statistical analysis in this study refers to the minimum, maximum, mean, and standard deviation values of the research variables:

• Accounting Information Systems (X1)
• Internal Audit (X2)
• Human Resource Quality (X3)
• Employee Performance (Y)

Table 1. Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Deviation
Accounting Information System (X1)	45	27	65	54.56	7.668
Internal Audit (X2)	45	20	45	35.53	7.089
Human Resource Quality (X3)	45	18	40	32.58	4.859
Employee Performance (Y)	45	23	55	46.42	6.290

Source: SPSS v23 Output (2023)

Interpretation of each variable confirms that the mean values are greater than their respective standard deviations, indicating a good data distribution.

Validity Test

Validity testing compares r-calculated > r-table, where df = n − 2 = 43, so r-table = 0.2940. Each item in the questionnaire showed r-calculated values > 0.2940, confirming validity for all indicators across variables.

Reliability Test

A variable is deemed reliable if Cronbach's Alpha > 0.6. The results are as follows:

Table 2. Reliability Test

Variable	Cronbach's Alpha	Description
Accounting Information Systems (X1)	0.781	Reliable
Internal Audit (X2)	0.783	Reliable
Human Resource Quality (X3)	0.781	Reliable
Employee Performance (Y)	0.849	Reliable

Source: SPSS v23 Output (2023)

Based on the results of the reliability test presented in Table 2, all research variables—namely Accounting Information Systems (X1), Internal Audit (X2), Human Resource Quality (X3), and Employee Performance (Y)—have Cronbach's Alpha values above 0.6. Specifically, the Cronbach's Alpha values for X1 and X3 are both 0.781, X2 is 0.783, and Y is 0.849. These results indicate that each variable meets the minimum threshold for reliability, with all values falling within the acceptable to good range of internal consistency. This suggests that the questionnaire items used to measure each construct are consistent and reliable, meaning they adequately reflect the intended variables.

Normality Test

Using the Kolmogorov-Smirnov test, the Asymp. Sig. (2-tailed) value is 0.200 > 0.05, indicating that the residuals are normally distributed.

Heteroscedasticity Test

Conducted using the Glejser test. All significance values are greater than 0.05, indicating no heteroscedasticity issues.

Multicollinearity Test

Multicollinearity is assessed using Tolerance > 0.10 and VIF < 10:

Table 3. Multicollinearity Test

Variable	Tolerance	VIF	Description
X1	0.487	2.054	No multicollinearity
X2	0.351	2.852	No multicollinearity
X3	0.436	2.293	No multicollinearity

Source: SPSS v23 Output (2023)

The results of the multicollinearity test in Table 3 show that all independent variables—Accounting Information Systems (X1), Internal Audit (X2), and Human Resource Quality (X3)—meet the criteria for the absence of multicollinearity. This is indicated by Tolerance values greater than 0.10 and Variance Inflation Factor (VIF) values less than 10 for all variables. Specifically, X1 has a Tolerance of 0.487 and a VIF of 2.054, X2 has a Tolerance of 0.351 and a VIF of 2.852, while X3 has a Tolerance of 0.436 and a VIF of 2.293.

These values fall within the acceptable thresholds, indicating that there is no strong correlation among the independent variables. Therefore, it can be concluded that multicollinearity is not present in this regression model, and the independent variables can be used reliably in further analysis without the risk of distortion due to overlapping information.

Multiple Linear Regression Analysis

This study uses multiple linear regression to examine the effect of X1, X2, and X3 on Y. The regression equation is:

Y = 13.444 + 0.310X1 - 0.317X2 + 0.839X3 + e

Table 4. Multiple Linear Regression Analysis

Variable	B	Std. Error	Beta	t	Sig.
Constant	13.444	5.810	—	2.314	0.026
X1 (AIS)	0.310	0.135	0.378	2.291	0.027
X2 (Audit)	-0.317	0.173	-0.358	-1.840	0.073
X3 (HRQ)	0.839	0.226	0.648	3.719	0.001

Source: SPSS v23 Output (2023)

The results of the t-test (partial test) indicate the individual influence of each independent variable on employee performance. The t-table value used as a reference is 2.01954. For the Accounting Information Systems (X1) variable, the calculated t-value is 2.291 with a significance value (p) of 0.027, which is less than 0.05. This means that X1 has a significant positive effect on employee performance. In contrast, the Internal Audit (X2) variable has a t-value of -1.840 and a significance value of 0.073, which exceeds 0.05, indicating that X2 has a non-significant negative effect on employee performance. Meanwhile, the Human Resource Quality (X3) variable shows a t-value of 3.719 and a significance level of 0.001, which is well below 0.05, confirming that X3 has a significant positive effect on employee performance. Thus, variables X1 and X3 significantly contribute to improving employee performance, while X2 does not show a statistically significant influence in this model.

Coefficient of Determination (R^2)

Table 5. Multiple Linear Regression Analysis

R	R^2	Adjusted R^2	Std. Error
0.676	0.457	0.417	4.804

This means that 41.7% of the variance in employee performance can be explained by the variables AIS, Internal Audit, and HR Quality, while the remaining 58.3% is influenced by other factors not included in the model.

5. Discussion

The results of the multiple linear regression analysis in this study indicate that Accounting Information Systems (AIS), Internal Audit, and Human Resource Quality (HRQ) have varying effects on employee performance at PT. Bumi Berdikari Sentosa. Based on the t-test results, Accounting Information Systems (AIS) and Human Resource Quality (HRQ) have a significant positive effect on employee performance, while Internal Audit does not show a significant effect. These findings are consistent with previous studies that found a positive impact of accounting information systems and human resource quality on both individual and organizational performance.

Research by Alavi and Leidner (2023) revealed that effective information systems can enhance organizational performance by providing accurate and timely information for decision-making. This aligns with the finding that AIS in this study has a significant positive effect on employee performance. Additionally, Gunawan et al. (2024) found that a good

quality accounting information system can improve employee performance through accurate and efficient information support. In this context, AIS plays a critical role in supporting employee performance at the company.

On the other hand, the finding that Internal Audit does not have a significant effect contrasts with the results of Hartoko and Fitri (2024), who showed that an effective internal audit function can improve performance through better internal control and supervision. This discrepancy may be due to the current condition at PT. Bumi Berdikari Sentosa, where internal audit processes might not be optimized or may not directly impact employee performance. Other factors, such as work motivation or managerial policies, might have influenced these results.

Meanwhile, Human Resource Quality (HRQ) has a significant positive effect on employee performance. This finding aligns with research conducted by Wazan et al. (2023), which showed that the quality of human resources, including competencies, training, and professional skills, significantly contributes to performance improvement. Employees with higher quality human resources tend to have better skills, which ultimately improves their performance in the workplace. Other studies, such as Khan and Ali (2023), also emphasize the importance of human resource quality in achieving organizational goals, which is consistent with the findings in this study.

Although these three variables can explain a portion of the variation in employee performance, the coefficient of determination (R^2) of 0.457 indicates that only about 41.7% of the variation in employee performance can be explained by these three variables, while the remaining 58.3% is influenced by factors not included in the model. Research by Davenport (2019) and Mithas & Lucas (2023) highlights that other external and internal factors, such as work motivation, organizational culture, and company policies, also play a crucial role in determining employee performance, which can account for the remaining variation.

Overall, the findings of this study provide evidence supporting the importance of accounting information systems and human resource quality in improving employee performance. However, the lack of significance for internal audit in this context suggests that the company may need to focus more on enhancing the management of accounting information systems and the development of human resources to support better performance in the future.

6. Conclusion

Based on the results of the study, it can be concluded that the Accounting Information System (AIS) and Human Resource Quality (HRQ) have a significant positive effect on employee performance at PT. Bumi Berdikari Sentosa, while Internal Audit does not show a significant effect. The analysis revealed that AIS positively impacts employee performance, as indicated by a significant t-value and a p-value below 0.05, confirming the importance of AIS in improving performance. Similarly, HRQ also demonstrated a significant positive effect on employee performance, which highlights the role of competent and skilled employees in enhancing organizational outcomes. On the other hand, Internal Audit did not significantly affect employee performance, suggesting that its influence might be less direct or not effectively implemented in the current context. Despite these findings, the study has some limitations. It is based solely on responses from a questionnaire without supplementary interviews or qualitative data, which could provide a more comprehensive understanding. Additionally, the study only focused on AIS, Internal Audit, and HRQ, while other factors, such as work motivation or organizational culture, could also influence performance but were not tested. Lastly, the research was limited to a single company, PT. Bumi Berdikari Sentosa, with a relatively small sample size, which may limit the generalizability of the results to other organizations. For future research, it is recommended to consider additional variables that

may affect employee performance, expand the sample size to include multiple companies or industries, and utilize qualitative methods, such as interviews or case studies, to gain deeper insights into the mechanisms through which these factors influence performance. This would contribute to a more holistic understanding of the factors that drive employee performance and help organizations develop more effective strategies for improvement.

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