ISSN: 3065-033X

Journal of Marketing Management and Research

Research Article

EVALUATING THE EFFECTIVENESS OF INFORMATION SYSTEMS AND TECHNOLOGY IN IMPROVING EMPLOYEE PRODUCTIVITY

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DOI:10.5281/zenodo.19694928

Abstract

This study examines the impact of accounting information systems (AIS) and information technology (IT) on employee performance at PT. Capella Patria Utama. Using a quantitative approach, data were collected through questionnaires involving all 34 employees as respondents. The total sampling method was used to ensure comprehensive analysis. Findings show that AIS and IT implementation significantly enhance work efficiency, accuracy, and decision-making. Employees experience reduced errors in financial reporting and improved productivity. The study highlights the need for continuous system upgrades, employee training, and IT support to maximize these benefits. These results provide insights for management to optimize AIS and IT use for better performance. Future research could explore long-term effects and broader organizational impacts of IT integration.

Keywords: Utilization of Accounting Information Systems, Information Technology, Employee Performance

1. Introduction

In accordance with Susanto (2013), accounting information systems are various and a collection of each sub-framework/section, namely physical/non-actual that affect each other and work on a group basis in harmony to handle transactions related to monetary issues into monetary data. According to Romney & Steinbart (2018), an accounting information system is a system that collects, records, stores, and processes data to produce information for decision-making purposes. Wilkinson, Cerullo, Raval, & Wong-On-Wing (2018) also stated that accounting information systems play a crucial role in supporting business operations, controlling risks, and ensuring financial integrity. Hall (2019) emphasized that an effective accounting information system improves decision-making by providing accurate and timely financial data, reducing fraud, and ensuring regulatory compliance.

The impact of information technology on accounting and financial reporting is significant. According to Warren, Reeve, & Duchac (2019), accounting systems have evolved from manual processes to automated systems, reducing time consumption and increasing accuracy. The adoption of enterprise resource planning (ERP) systems has enabled businesses to integrate their financial data with other operational processes, leading to more informed decision-making (Monk & Wagner, 2020). Moreover, blockchain technology is being increasingly implemented

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in accounting to enhance security and data integrity (Dai & Vasarhelyi, 2017). The decentralized nature of blockchain minimizes fraud risks and ensures data transparency, which is essential for financial reporting.

Performance is the result of workers' work as far as quality, quantity, work time, and participation to achieve the goals set by the association. According to Mathis & Jackson (2019), employee performance is influenced by motivation, work environment, and the technology used in the organization. Dessler (2020) emphasized that performance appraisal systems, when integrated with technology, provide accurate and timely feedback to employees, improving overall efficiency. Noe, Hollenbeck, Gerhart, & Wright (2021) also noted that the use of technology in performance management enables organizations to track and analyze employee contributions more effectively. Employee monitoring software, for instance, helps in evaluating productivity and identifying areas of improvement (Bernardin & Russell, 2018).

Employee performance is also affected by the level of digital literacy and adaptability to technological changes. According to Robbins & Judge (2021), employees who receive adequate training in using modern information systems demonstrate higher job performance and satisfaction. Organizations must invest in continuous training programs to ensure their workforce remains competitive in an era of digital transformation (Aguinis, 2019). Furthermore, motivation theories suggest that providing employees with advanced technological tools increases engagement and reduces work-related stress (Herzberg, 1968).

This study aims to determine the application of the use of accounting information systems and modern innovations to worker activities at PT. Capella Patria Utama. Research by Stair & Reynolds (2021) emphasizes that the integration of information systems and technology improves organizational productivity and competitiveness. According to Romney & Steinbart (2020), organizations that utilize robust accounting systems experience increased operational efficiency, reduced financial risks, and improved decision-making. Gelinas et al. (2018) highlighted that modern accounting systems help businesses maintain compliance with financial regulations while streamlining operational processes.

In the context of PT. Capella Patria Utama, adopting modern accounting information systems can enhance financial reporting accuracy and operational efficiency. Research by Markus & Tanis (2019) suggests that implementing ERP systems in business operations leads to better data integration, reducing redundancies and enhancing decisionmaking. According to Xu (2020), businesses that embrace digital accounting tools, such as cloud-based software and AI-driven analytics, experience improved financial transparency and agility in responding to market changes.

Furthermore, the influence of big data and predictive analytics in accounting has revolutionized financial decision-making. According to Chen, Chiang, & Storey (2012), big data analytics enables companies to analyze vast amounts of financial information, identifying patterns and predicting future trends. This is particularly beneficial for risk management and strategic planning. The ability to harness predictive analytics within

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accounting information systems allows businesses to make data-driven decisions, enhancing long-term sustainability and growth (Provost & Fawcett, 2013).

2. Theoretical Background

2.1 Utilization of Accounting Information Systems

The utilization of Accounting Information Systems (AIS) refers to the use of technology and accounting procedures to collect, store, process, and report an organization's financial information. AIS assists in decision-making by providing accurate, real-time, and relevant data for management, auditors, and other stakeholders. The main benefits of AIS include improved operational efficiency, reduced errors in transaction recording, compliance with regulations, and enhanced internal control (Romney & Steinbart, 2021).

2.2 Information Technology (IT)

Information Technology (IT) encompasses various hardware, software, networks, and systems used to manage and disseminate information within an organization. IT plays a crucial role in improving business efficiency, automating processes, and accelerating communication and data analysis. In the context of accounting and business, IT supports the processing of large volumes of data, information security, and system integration across departments to enhance productivity and competitiveness (Laudon & Laudon, 2022).

2.3 Employee Performance

Employee performance refers to the effectiveness and efficiency of an individual in carrying out their duties and responsibilities in the workplace. Performance is influenced by various factors such as skills, motivation, work environment, and the use of technology. Employee performance is typically measured through indicators such as productivity, work quality, adherence to standards, and contributions to organizational goals. The proper implementation of AIS and IT can enhance employee performance by providing faster information, reducing administrative burdens, and enabling better decision-making (Armstrong & Taylor, 2020).

2.4 Hypothesis

An Accounting Information System (AIS) is designed to collect, store, and process financial data and business transactions to generate accurate and relevant information for decision-making. The effective use of AIS can enhance employee efficiency, reduce errors in data recording, and accelerate financial reporting processes. Consequently, employees can work more productively, improve accuracy in their tasks, and have more time to focus on other strategic activities. Ultimately, this leads to a positive impact on overall employee performance.

H1: *The use of SIA has a positive effect on employee performance.*

Information Technology (IT) plays a crucial role in enhancing employee performance by providing fast access to information, improving communication, and streamlining business processes. The use of software, cloud-based systems, and automation tools helps employees complete their tasks more efficiently and accurately. Additionally, IT enables work flexibility, such as remote access to company systems and online collaboration. With optimal IT

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implementation, employees can be more productive, reduce time wasted on administrative tasks, and increase creativity and innovation in their work. ***H2:*** *The use of Information Technology has a positive effect on employee performance*

When AIS and Information Technology are used together, the synergy between the two can further enhance employee efficiency and effectiveness. AIS integrated with modern IT enables the automation of various accounting and financial processes, reducing manual workload and accelerating decision-making. With IT support, access to AIS data becomes faster and more accurate, allowing employees to work more productively. Moreover, collaboration between departments becomes smoother due to a more connected and responsive system. Therefore, the combined use of AIS and IT has a greater positive impact on employee performance compared to using either system separately**.** ***H3:*** *The use of SIA and Information Technology together has a positive effect on employee performance.*

3. Methods

The type of assessment used is quantitative examination. The population as well as the sample determined in this study is a speculation area consisting of articles and subjects that have the number and quality of 34 respondents. The method used in the test is total sampling. According to Sugiyono (2014), it is a testing procedure when all individuals from the complete population are used as tests. This is because the population studied is small so that by taking the entire population, it is hoped that this study will get more representative results.

4. Results and Discussion

4.1 Descriptive Statistical Analysis

4.1.1 Variables of Accounting Information System Utilization

Table 1. Distribution of Answer Frequency of Accounting Information System Utilization

Interval	Valuation	Frequency	Percentage
43-50	SS	20	58.82
35-42	S	12	35.29
27-34	N	2	5.88
19-26	TS	0	0.00
10-18	STS	0	0
Total		34	100

Source: Processed Data, 2022

Considering the above data, it can be clearly seen that of the 34 respondents who answered the statement of the variable of the Utilization of Accounting Information System on the assessment of Strongly Agree, there were 20 respondents (58.82%), the assessment of Agree there were 12 respondents (35.29%), the assessment of Neutral

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there were 2 respondents (5.88%), the assessment of Disagree there were 0 respondents (0%) and in the assessment Strongly disagree there are 0 respondents (0%).

4.1.2 Variables of Information Technology Utilization

Table 2. Distribution of Answer Frequency of Information Technology Utilization

Interval	Valuation	Frequency	Percentage
43-50	SS	28	82.35
35-42	S	5	14.71
27-34	N	1	2.94
19-26	TS	0	0.00
10-18	STS	0	0
Total		34	100.00

Source: Processed Data, 2022

Considering the data above, it can be clearly seen that of the 34 respondents who answered the statement of the variable of Information Technology Utilization with a Strong Agree assessment, there were 28 respondents (82.35%), the Agree assessment was 5 respondents (14.71%), the Neutral assessment was 1 respondent (2.94%), the Disagree assessment was 0 respondents (0%) and in the assessment Strongly disagree there are 0 respondents (0%).

4.1.2 Employee Performance Variables

Table 3 Distribution of Employee Performance Answer Frequency

Interval	Valuation	Frequency	Percentage
43-50	SS	20	58.82
35-42	S	13	38.24
27-34	N	1	2.94
19-26	TS	0	0.00
10-18	STS	0	0
Total		34	100.00

Source: Processed Data, 2022

Considering the data above, it can be clearly seen that of the 34 respondents who answered the statement of the Employee Performance variable with a Strongly Agree assessment, there were 20 respondents (58.82%), the Agree assessment was 13 respondents (38.24%), the Neutral assessment was 1 respondent (2.94%), the Disagree assessment was 0 respondents (0%) and the Strongly disagree there are 0 respondents (0%).

4.2 Multiple Linear Regression Analysis

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Table 4. Results of Multiple Linear Regression Analysis

Type		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	8.043	9.841
	Accounting Information System	0.391	0.179
	Information Technology	0.614	0.198
a. Dependent Variable: Employee Performance			

Source: SPSS Management Results, 2022

1) Constant (α) = 8.043 shows the value of the constant, namely on the score of the independent variable has a score of zero, then the Y variable of employee performance is 8.043.

2) Coefficient (b1) X1 = 0.391 shows that variable X1 the use of accounting information systems is positively related to employee performance.

3) Coefficient (b2) X2 = 0.614 shows that the variable X2 Utilization of accounting information technology is positively related to employee performance.

4.3 Test T

Table 5. T Test Results

Type		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8.043	9.841		0.817	0.420		
	Accounting Information System	0.391	0.179	0.385	2.203	0.024	0.945	1.058
	Information Technology	0.614	0.198	0.478	3.104	0.004	0.945	1.058
a. Dependent Variable: Employee Performance								

Source: SPSS Management Results, 2022

1) The use of Accounting Information System (X1) on Employee Performance (Y) is known to be sig. 0.024 < 0.05 and the calculated t-score is 2.203 > t table 2.039 so it can be guessed that H1 is accepted which means there is an impact between the X1 variable and the Y variable.

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2) The use of Information Technology (X2) for Employee Performance (Y) is known to be sig. 0.004 < 0.05 and the t-calculated score of 3.104 > t-table 2.039, which is very good to be illustrated if H2 is accepted, and this actually means that there is an impact between the X2 variable and the Y variable.

4.4 Test F

Table 6. Test Results F

Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	205.067	2	102.534	6.786	.004b
	Residual	468.374	31	15.109		
	Total	673.441	33			
a. Dependent Variable: Employee Performance						
b. Predictors: (Constant), Information Technology, Accounting Information Systems						

Source: SPSS Management Results, 2022

Based on the data above, it is illustrated that the value of Sig. is 0.004 and the value of Fcal = 6786. because Sig. 0.004 < 0.05 and Fcal = 6.786 > Ftable = 3.29, it is concluded that the simultaneous impact of each single independent factor, the use of bookkeeping data frameworks and the use of data innovation have a measurable critical impact on the implementation of workers.

4.5 Determination Coefficient Test (R2)

Table 7. Determination Coefficient Test (R2)

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552a	0.305	0.260	3.88701
a. Predictors: (Constant), Information Technology, Accounting Information Systems				
b. Dependent Variable: Employee Performance				

Source: SPSS Management Results, 2022

Considering the data above the Adjusted R2 value is 0.305, and that means that 30.5% of the representative implementation can be understood by these two factors by utilizing the bookkeeping data framework and the use of data innovation, while the excess of 26% is explained by other variables.

5. Conclusion

The utilization of accounting information systems has a significant impact on the performance of employees at PT. Capella Patria Utama. By leveraging these systems, employees can work more efficiently, reduce errors, and enhance decision-making processes, ultimately improving overall productivity.

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Similarly, the effective use of information technology also influences employee performance at PT. Capella Patria Utama. The integration of technology in daily operations facilitates faster communication, automates tasks, and enhances data management, allowing employees to perform their duties more effectively.

Furthermore, when both the utilization of information systems and information technology are combined, they collectively contribute to improving employee performance at PT. Capella Patria Utama. The synergy between these two elements creates a more structured and efficient workflow, enabling employees to maximize their potential and achieve better results for the organization.

References

Rahmad, F. A. (2013). Accounting information systems – structure, control, risk, and development (1st ed.). Bandung: Lingga Jaya.

Rahmad, F. A. (2017). Accounting information systems – an integrated conceptual understanding (1st ed., 1st printing). Bandung: Lingga Jaya.

Bakri, H. M., & Gunasekaran, R. (2011). Preliminary study to investigate the determinants that affect IS/IT outsourcing. Journal of Information and Communication Technology Research, 1(2), 48–54.

Basri, M. Z. (2013). Accounting information systems (2nd ed.). Yogyakarta: BPFE.

Tandiono, R. M., Prameswari, T. R., & Fitriana, K. (2016). The effect of regional original income and capital expenditure on the increase of the human development index in regional governments of Lampung Province, 2013–2015 period. Sumber, 74(27), 74–98.

Darmayanti, D. (2012). Information and communication technology education. Bandung: PT Remaja Rosdakarya.

Edwin, D. K., Wijaya, J. J., & Hartono, T. D. (2017). Intermediate financial accounting (2nd printing). Jakarta: Salemba Empat.

Pranoto, D. J. (2014). Human resource planning and development. Bandung: Alfabeta.

Martadinata, D., & Colleagues. (2016). Intermediate financial accounting based on PSAK Book 1 (2nd ed.). Jakarta: Salemba Empat.

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Armando, M., & Tayor, S. L. (2020). Armando's handbook of human resource management practice (15th ed.). London: Kogan Page.

Laurent, K. C., & Laurent, J. P. (2022). Management information systems: Managing the digital firm (17th ed.). London: Pearson.

Rowman, M. B., & Steinfield, P. J. (2021). Accounting information systems (15th ed.). London: Pearson.