ACCOUNTING INFORMATION SYSTEM (AIS) INTEGRATION OF ARTIFICIAL INTELLIGENCE AND MANAGEMENT IN FARM TOURISM KELOMPOK TANI ELOK MEKAR SARI

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Received: January, 2024; Accepted: January, 2024; Published: March, 2024

ABSTRACT

Artificial Intelligence (AI) and management have many benefits and relevance that are very important to be applied in various entities both large, medium, to small including Eduwisata Kelompok Tani Elok Mekar Sari Surabaya. By implementing AI and management within entities, these organizations can harness the potential of technology to improve their performance, innovation, and competitiveness in an increasingly competitive market. The purpose of this study is to examine the impact of several factors, such as AI and management on the effectiveness of accounting systems in Lestari educational tours located in Surabaya. Researchers use a mix method, namely primary data and secondary data for data collection methods. The results of the analysis show that the effectiveness of accounting information systems is positively influenced by artificial intelligence and management. This is evidenced by the results of the F test, where the calculated F value (139.983) is greater than the table F value (3.940), with a significance level of 0.000 which is less than 0.05. In addition, a qualitative approach is also needed to understand the phenomena that occur in the field. Therefore, it can be concluded that artificial intelligence and management variables have a positive effect on the effectiveness of accounting information systems. The conclusions of this study are consistent with previous findings that have been done by other researchers in the past. The difference is that this study uses qualitative and quantitative approaches

Keywords: Accounting Information System (AIS), Artificial Intelligence, Management, Eduwisata
JEL Classification:

INTRODUCTION

Agriculture is synonymous with rural land that tends to be large, clean, and productive. But agriculture is now starting to develop also in urban areas. This is no different from the problem of urban poverty. The increasing urbanization of the population to urban areas without proper preparation has led to an increase in urban poverty, especially in suburban areas. Therefore, people also face constraints on food availability and access due to inequality of income distribution, increasing poverty, reduced productive land in urban areas, and inequality of food distribution.

Surabaya is the capital of East Java province and the second largest city in Indonesia. Of course, this title cannot separate Surabaya from the problems of urbanization and social inequality. Many people in Surabaya are trying to find happiness in this city. As a result, the number of people living in Surabaya tends to increase from year to year, and there are many urban problems such as unemployment, poverty, malnutrition, crime, population growth, overcrowding, the emergence of illegal construction, lack of job opportunities and increasing food needs.

Based on BPS data, the proportion of poor people in Surabaya City is known to have fluctuated from 2010 to 2019, decreasing by around 0.17% every year. This trend shows good progress as the proportion of poor people reached 4.51% in 2019, or equivalent to a total of 1.3055 million people living in poverty.

This entity of industries in various fields, including in accounting have been significantly impacted by advances in information technology, as have many other aspects of society. For any company to succeed, an effective information system and competent management are essential. The use of artificial intelligence and management technology has become an important component in improving the quality and effectiveness of accounting information systems in the current era. While information technology refers to the use of accounting software and supporting technology infrastructure, management actively participates in the development, implementation, and utilization of accounting information systems.

The ability of an accounting information system to succeed also depends on management involvement. Management's active participation in the creation, implementation, and utilization of accounting information systems is referred to as management involvement. By involving management at a high level, the effectiveness of accounting information systems can be enhanced by ensuring that the system is designed to meet the needs of the business and its users.

The purpose of this research is to examine the impact of artificial intelligence technology and management involvement on the effectiveness of the accounting information system at Eduwisata Kelompok Tani Elok Mekar Sari Surabaya. This research is expected to help other similar organizations in better managing and implementing artificial intelligence and information systems by identifying elements that affect the effectiveness of accounting information systems. The use of artificial intelligence information technology and management involvement are just two examples of variables that affect the success of an accounting information system. Future research can test the importance of other aspects, which include personnel competence, organizational structure, and policies within the company

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LITERATURE REVIEW

Pratama (2014) states that an information system is a group of components of several devices, infrastructure, and trained human resources. Irda (2023) defines an information system as a combination of either software, hardware or data bases that collect, modify, and disseminate or send information within certain companies or organizations. In addition, according to Mulyanto (2017) an information system is a system made of various components, such as hardware or software and brainware that can process information into useful outputs to achieve certain goals.

Information System (IS) is a series of interconnected components that work together to collect, store, manage, and process data into information that is useful for an organization or entity. Information systems not only consist of technologies such as hardware and software, but also include people, procedures, data, and communications related to business processes. The main components of an information system include:

1. Hardware
   Is a physical part of an information system, such as computers, servers, communication networks, and data storage devices.
2. Software
   Are computer programs used to manage data and perform necessary operations. These can be specialized business applications, database management systems (DBMS), operating systems, and so on.

3. Data
   Is raw information generated or collected by information systems. Data can be text, images, sounds, or other forms that can be processed by the system.
4. Procedures
   Are steps or rules followed in the management and use of information systems. This includes procedures for entering data, accessing information, and performing other system operations.
5. People
   Are users of information systems, including end users who enter or access data, as well as IT professionals who manage and operate systems.
6. Networks
   Is a communication infrastructure that connects all components of an information system, enabling the exchange of data and information between them.

The main purpose of information systems is to provide timely, accurate, and relevant information to users to support effective and efficient decision making. Information systems can be used in various areas and levels of an organization, ranging from the operational level to the strategic level, to assist in business management, decision making, and achieving organizational goals.

Bodnar and William (2000: 1) define an accounting information system as an element of resources used to process data so that it can produce useful information, while Jogiyanto (2000: 49) views it as a collection or combination of several resources, such as human resources, tools, and others that are tasked with providing various kinds of information obtained through the process of collecting and processing transaction data. According to Irda (2024), an accounting information system is an accounting data processing system with a number of elements that work together and complement each other harmoniously, such as methods, humans, and equipment that function as an integrated unit in an agency or organization to produce useful information related to financial and management accounting.

AIS consists of various components that work together to record, process, and report on an entity's financial transactions. The main components of AIS include:

1. Input Data
   Involves collecting financial transaction data from various sources, such as sales, purchases, payments, and receipts. This data is usually fed into the system through various means, ranging from manual input to automatic integration with other systems.
2. Processing
   This process involves processing the entered data to produce useful information. This includes processing transactions, calculating totals, and making financial statements.
3. Data Storage
   Data that has been processed is stored in a secure database or storage system for future retrieval and use.
4. Output Information
   The accounting information generated by the system, including financial statements, management reports, and other reports, is provided to users, such as management, shareholders, external parties, and governments.
5. Controls
   Internal controls and security mechanisms are implemented in AIS to ensure the reliability, accuracy, and security of data and information generated by the system.

AIS plays a key role in supporting the accounting function of an organization. It

helps in recording financial transactions, processing information quickly and accurately, providing relevant and reliable financial statements, as well as complying with applicable accounting standards and regulations.

In addition, AIS can also assist management in performance analysis, budget planning, cost control, investment decision making, and business strategy evaluation. Thus, AIS is an important tool for companies to achieve their financial goals and manage their finances effectively.

Information technology is a technology that helps to improve the processing and storage of information so that it can be used by the party who will take the decision, while according to Williams and Saywer in Seesar (2010:6), information technology is any technology that helps store, communicate, produce and/or convey information. Artificial Intelligence

(AI) refers to the use of computer techniques and algorithms to create systems that can perform tasks that normally require human intelligence. AI aims to make computers capable of thinking, learning, and acting like humans, with the ability to process big data and extract patterns or knowledge from that data.

Artificial Intelligence Information Technology has a great impact in various industries and fields, helping to improve efficiency, innovation, and user experience. With the continued development of AI technology, it is expected that new applications will continue to emerge that can help overcome various challenges and improve the overall quality of human life.

According to Igbaria (1996), management involvement refers to participation or executive, manager, or management involvement in the information technology industry or information systems. According to Ann Mooney (2008), management involvement. In support serves as a guideline on commitment to all Resources required by a business entity or organization. Management participation refers to the process by which managers or leaders of an organization involve employees or team members in decision making, planning, and strategy implementation. It can also include employee involvement in formulating goals, setting policies, and evaluating performance and goal achievement.

Management participation is considered a positive practice in managing the organization because it can bring various benefits, including:

1. Increase Employee Engagement:
   Management participation allows employees to feel more involved in the decision-making and planning process, which can increase a sense of belonging to the organization and motivation to achieve common goals.
2. Increased Creativity and Innovation:
   By involving employees in the decision-making process, organizations can leverage diverse views and creative ideas from different levels and departments, which can enrich the resulting strategies and solutions.
3. Improving Decision Quality:
   Involving various stakeholders in decision making can help improve decision quality by considering various viewpoints and relevant information.
4. Improved Organizational Performance:
   Employee involvement in planning and implementing organizational strategy can help improve overall performance as employees feel more engaged and accountable for the achievement of goals.
5. Building a Team-Oriented Organizational Culture:
   Management participation strengthens a work culture based on cooperation, mutual trust, and open communication between management and employees.

While it has many benefits, management participation can also pose some challenges, such as slowing down the decision-making process, facing resistance to change, and requiring effective communication to ensure that all parties involved feel heard and valued.

Overall, management participation is an important practice in building inclusive, adaptive, and effective organizations, where employees feel a sense of responsibility and involvement in achieving common goals. Many researchers have conducted diverse forms of investigation to ascertain the variables that impact the efficacy of the system.

The framework used in accounting information system research with the influence of two variables, namely artificial intelligence and management, can be described below:

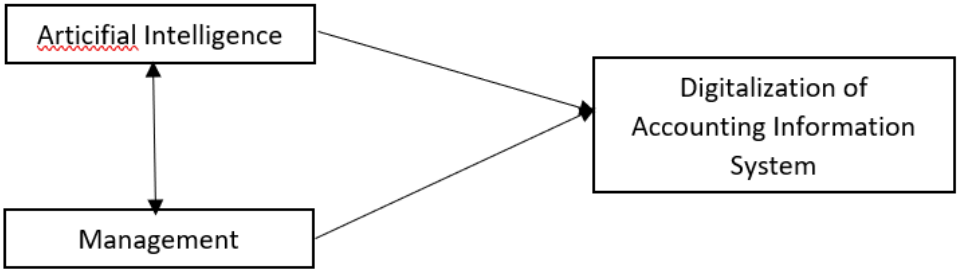

FIGURE 1. THE FRAMEWORK

In addition, Handayani (2010) research revealed that the effectiveness of the accounting information system is positively influenced by management support. According to Ratnaningsih research (2014), accounting managers' knowledge, management involvement, and information technology sophistication all have a positive and significant effect on the success of the accounting information system. Similarly, Susilastri (2010) research states that managerial support has a strong influence on the accounting system. The level of top-level management support an institution receives for its information systems is an important component in the success of all information system-related activities. The following is the formulation of the hypothesis based on the explanation above:

H_1: Artificial intelligence and management have a significant negative influence on accounting information systems

H_2: Artificial intelligence and management have a significant positive influence on accounting information systems

METHOD

Combined research methods, or also known as mixed methods research, is a research approach that combines elements of qualitative and quantitative approaches in one study. In the combined method of research, researchers use quantitative and qualitative analysis techniques and tools to collect and analyze data.

The approach used by researchers in the combined research method is sequential explanatory design. Research begins with the collection and analysis of quantitative data, followed by the collection and analysis of qualitative data to explain or develop quantitative findings. The combined research method provides flexibility for researchers to answer more complex research questions by utilizing the strengths and weaknesses of quantitative and qualitative approaches. It also allows to gain a deeper understanding of the phenomenon under study, as it allows to see from different points of view and integrate findings from different types of data.

The method of quantitative description is used in research for starters. Every

interested party working in Kelompok Tani Elok Mekar Sari Surabaya edutourism is used as a research population. Purposive sampling is used to take research samples, meaning that it is carried out in accordance with predetermined standards or requirements. These requirements are those who utilize digitalization which plays a role as an accounting information system. Researchers use secondary data from various literature sources, such as journals or articles that have examined the influence of information management and technology on the effectiveness of accounting information systems. Furthermore, researchers use the quality method to dig deeper than the samples that have been obtained.

RESULTS AND DISCUSSION

RESULTS

Normality Test

To understand the normality of the distribution of existing data, the data were tested using Kolmogorov Smirnov Z, but statistical tests and significance values used the Lilliefors method. Based on the data from the table above it can be seen that asymp. Sig (2-tailed) 0.200 > 0.05. It can be concluded that information technology data, management involvement, and the effectiveness of the Kelompok Tani Elok Mekar Sari accounting information system are normally distributed.\

TABLE 2. ONE-SAMPLE KOLMOGOROV-SMIRNOV TEST

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		99
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.13350833
Most Extreme Differences	Absolute	.233
	Positive	.233
	Negative	-.189
Test Statistic		.233
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Process data

This research was conducted by starting testing of research instruments and models with the concept of Confirmatory Factor Analysis (CFA) test, by testing each indicator of the variables studied.

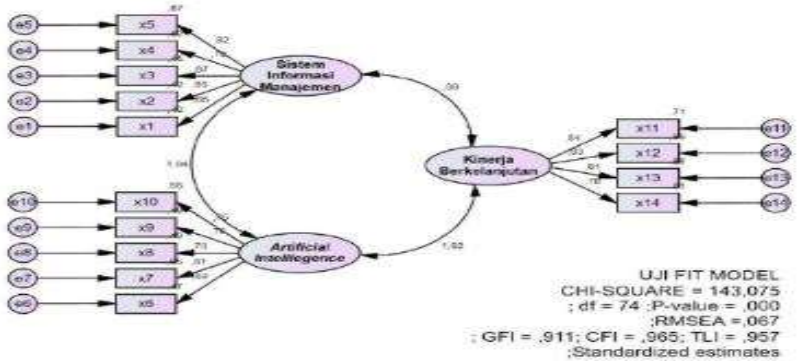

FIGURE 2. UJI FIT MODEL

Source: Process data

Based on the results of the output standardized loading estimate above, the overall loading factor is statistically significant and the loading factor value is above 0.50. In confirmatory factor analysis, the average process of Variance Extracted (AVE) between items or indicators of a set of latent constructs is a summary convergent indicator.

The calculation results in the AVE value for the latent construct and the construct reliability value using the Construct Reliability (CR) value.

Multiple Linear Regression Analysis

The values from the table above are written in the equation as follows:\

$$Y' = a + b_1 X_1 + b_2 X_2$$

$$Y' = 0{,}714 + 0{,}154\ X_1 + 1{,}184\ X_2$$

TABLE 2. MULTIPLE LINEAR REGRESSION ANALYSIS

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.714	.366		1.953	.190		
	Teknologi Informasi	.154	1.230	.093	.125	.912	.709	1.410
	Partisipasi Manajemen	1.184	2.121	.414	.559	.633	.709	1.410

a. Dependent Variable: Efektivitas SIA

Source: Process data

Here is an explanation of the equation:

1. The value of a = 0.714 can be interpreted if information technology and management involvement are assumed to have no influence, then the effectiveness of the accounting information system value is 0.714.
2. The value of b1 = 0.154, meaning that every increase in X1 by 1 unit, it will increase the value of Y by 0.154 units.
3. The value of the regression coefficient of management involvement (b2) = 1.184, meaning that every increase in management involvement (X2) by 1 unit, it will increase the value of Y by 1.184 units

Test F

The results of the F test with the SPSS analyzer show the values of df 1 = 2 and df = 96, so that obtained F table with a value of 3.940. Significant 0.000 < 0.05 and F calculate > F table (139.983 > 3.940), then Ha accepted and H0 rejected. Ha accepted Shows that the effectiveness of the accounting information system is affected by positive by information technology and management involvement.

CONCLUSION

Overall, it can be concluded that information technology especially in articifial intelligence and management involvement have a positive influence on the effectiveness of the Kelompok Tani Elok Mekar Sari accounting information system. This is evidenced by the results of the F test which shows that the F value is calculated> F table (139.983 > 3.940) and the significance value (0.000 < 0.05. The results of the study are in line and do not contradict several other studies related to the involvement of management, information technology, and accounting information systems that have been conducted by several researchers, such as Handayani (2010), Ratnaningsih (2014), and Susilastri (2010).

Efforts that can be made to increase the output of farmer groups are improving coordination between stakeholders to empower the poor so that they can reduce poverty, carrying out periodic and timely evaluations so that problems that occur during program implementation can be known so that poverty alleviation targets can be realized, there is a need for increased assistance to support cultivation activities, intervention is needed Technology to minimize pest disturbances, it is necessary to consider agricultural

techniques from conventional systems to hydroponic systems as an effort to prevent during the dry season where water supplies tend to be minimal, and direct people who are members of the urban farming program to add add value from fishery and agricultural crops so as to increase farmers' income and contribute to the regional economy.

One of the limitations of this study is that this study was only conducted on group actors located in the area in Surabaya. Therefore, it cannot be generalized to all places that also have different characteristics from the sample used. Further research may be able to produce different analyses, this is one of them because it is influenced by different characteristics of the research sample. Therefore, researchers are further advised to conduct further research with a wider sample size and carried out in larger industries in Indonesia.

ACKNOWLEDGEMENT

We would like to thank the parties involved in writing and publishing this article. The following parties are involved:

1. We would like to thank the University of 17 August 1945, which has provided a platform for students to write and publish journals. Especially to Prof. Dr. Hj. Tri Ratnawati, SE, Ak, MS. as head of the economics doctoral study program.
2. Thank you to respondents in the field of artificial intelligence and management who have provided in-depth knowledge related to research.
3. We also cannot forget to say a big thank you to our fellow students who have helped in the success of writing this article so that it ran smoothly.
4. Last but not least, Kelompok Tani Elok Mekar Sari which is already willing to be a research location. This location provides a wide variety of experiences and learning that can be explored more deeply.

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