

The Effect of Information Technology Sophistication, Users Participation and Internal Supervisors on the Effectiveness of the Accounting Information System

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Abstract: The purpose of this study was to determine the effect of information technology sophistication, the participation of information system users, and the role of internal supervisors on the effectiveness of accounting information systems. This research was conducted at the Village Credit Institution (VCI) in Marga Sub-district which has implemented AIS. The sample used was 36 respondents, with a purposive sampling technique. Analysis of the data used in this study using multiple linear regression. The results of this study indicate that the sophistication of information technology, participation in using information systems, and the role of internal supervisors have a positive effect on the effectiveness of accounting information systems.

Keywords: Information Technology Sophistication, Users Participation, Internal Supervisors, Effectiveness of Accounting Information Systems.

I. INTRODUCTION

The development of the business world has increasingly seen an increase, this can be indicated by the increase in community economic activity and the need for working capital. Countries that have a good level of economic growth cannot be separated from the role of financial institutions. Financial institutions, both banks, and non-bank financial institutions have a very important role in economic activity (Bhagaskara & Damayanthi, 2020). The strategic role of this financial institution as a vehicle capable of collecting and channeling public funds effectively and efficiently towards improving the people's standard of living. In Bali, in particular, every village has a Village Credit Institution that functions as a driver of community economic development through targeted savings, as well as effective distribution of capital (Astika & Wirasedana, 2020). The success of development in the economic sector will be achieved if the community can optimally develop the businesses they run. Whether it's in the scope of large, medium, and small businesses. However, with the rapid development of VCI, the operational and managerial activities of VCI are becoming increasingly complex (Maharani & Damayanthi, 2020). The volume of transactions is getting bigger, the complexity of managing transactions is getting higher, and there is a demand to provide financial reporting more quickly and accurately, causing VCI to take advantage of information technology (Kurniawan & Satrya, 2020). Information technology systems, especially computer technology, can improve individual performance in an organization.

Advances in information and communication technology have made accounting information systems (AIS) an important tool in a highly competitive business world. AIS is a combination of human and other resources who are responsible for providing financial information as well as information obtained through the collection and processing of transaction data within an organization (Cross & Daniel, 2019). Accounting information systems are components that are interconnected to collect, store, process and disseminate information for planning, controlling, coordinating, analyzing, and decision making (Alawaqleh, 2021). The main function of an accounting information system is to process data from financial transactions into useful information for the company (Manuaba & Yadnyana, 2021). Accounting information systems play an important role in effective decision-making processes to control and coordinate organizational activities to

achieve better performance. The importance of using accounting information systems in producing quality information and supporting the decision-making process to improve organizational efficiency (Mertha & Suartana, 2020).

Effectiveness comes from the word effective, which is the achievement of the right goal by making the right choice from a series of alternatives for decision making, while effectiveness has the meaning of being successful or appropriate in achieving the goals that have been set. In general, an effective system is defined as a system that can provide added value to the company, so it is required for each system to be able to have a positive influence on its users (Hardani & Ramantha, 2020). The information system is said to be effective if the system can produce acceptable information and can meet information expectations in a timely, accurate and reliable manner. Several computer-based systems that have been adopted by VCI such as Gio Shop, Acosys, Fina, and Abipro have helped VCI operations since 2015.

Technological sophistication companies have a good level of AIS alignment compared to non-users. The sophistication of information technology and management participation had a significant influence on the effectiveness of the accounting information system (Lahuddin et al., 2017). An effective accounting information system can measure the competitive advantage that a company can create. Technological sophistication will help companies produce more accurate and timely information for effective decision making. The knowledge of accounting managers, management participation, and the sophistication of information technology has a significant positive effect on the effectiveness of the Accounting Information System. The participation of information system users plays a very important role in increasing the effectiveness of the accounting information system. The success of developing an information system in a company depends on how the system is run, the ease of the system for its users, and the utilization of the technology used. Optimizing information technology can be done by improving the performance of its users, but that does not mean that every individual positively accepts the existence of the technology and can feel the benefits. The more effective the accounting information system will lead to higher individual performance (Thakurta, 2017).

Today companies are faced with a very changing and competitive environment. For this reason, the role of information technology is very important to change to assist in improving business processes and decision making. Business processes and decision-making will be even better if the company implements information technology properly and correctly so that a good internal control process is needed for information technology applications that exist within the company (Sumaryati et al., 2020). The supervisory system based on internal institutions can be seen from the presence of internal supervisors within the company (Lisnawati, 2017). The role of internal supervisors is indispensable in the process of implementing an accounting information system, namely to evaluate or provide an assessment of the system to achieve company goals. The assessment carried out is to assess the extent to which the resulting accounting information system is accurate, meaning that it is free from errors, unbiased and misleading, and can increase knowledge for decision making (Lahuddin et al., 2017).

II. HYPOTHESIS DEVELOPMENT

The relationship between information technology sophistication and effectiveness can be explained by thinking that a system that has good informational sophistication will help companies produce fast and accurate information for effective decision-making (Meiryani & Susanto, 2018). The Technology Acceptance Model (TAM) explains that there are two factors, namely the usefulness and ease of using technology that affects personal behavior to accept and use technology (Bastan et al., 2021). Based on this theory the sophistication of information technology in data processing is very necessary because AIS users will find it easier to operate the system. After all, technology is intended to help human work so that it is designed to be easier to use and able to increase technology user satisfaction and increase AIS effectiveness. Mansor et al. (2016), Hartikayanti et al. (2018), Huy & Phuc (2020) state that the sophistication of information technology has a significant effect on the effectiveness of the accounting information system. Thus, the higher the level of sophistication of information technology, the higher the level of effectiveness of the accounting information system

H1: Technological sophistication has a positive effect on the effectiveness of the accounting information system

Participation of users of information systems in the form of user responses is very influential on the successful use of information systems. The influence of user participation, commonly called employees or personnel, will determine the success of implementing an accounting information system in a company. The Technology Acceptance Model (TAM) explains that there are two factors, namely the usefulness and ease of using technology that affects personal behavior to accept and use technology. Based on this theory, the Technology Acceptance Model (TAM) explains that there are two factors, namely the benefit and ease of using technology that affect personal behavior in accepting and using technology.

Based on this theory, the participation of AIS users who are involved in the AIS development process will feel more ownership of the information system used so that later the AIS effectiveness of the system used will increase. Ernawatiningsih (2019) states that the participation of information system users has a positive and significant effect on the effectiveness of the accounting information system. Majid et al. (2020) state that the participation of information system users affects the effectiveness of the accounting information system. The higher the level of user participation in the application of accounting information systems, the higher the level of effectiveness of the accounting information system within the company.

H2: Participation of information system users has a positive effect on the effectiveness of accounting information systems.

The Technology Acceptance Model (TAM) explains that there are two factors, namely the usefulness and ease of using technology that affects personal behavior to accept and use technology. Based on this theory, the Technology Acceptance Model (TAM) explains that there are two factors, namely the usefulness and ease of using technology that affects personal behavior to accept and use technology. Based on this theory, the role of internal supervisors helps organizations achieve their goals by applying a systematic and disciplined approach to evaluate and improve the effectiveness of risk management processes, adequacy of control, and organizational management. Hadi Rashedi & Dargahi (2019) state that the role of internal supervisors affects the effectiveness of accounting information systems

H3: The role of internal supervisors has a positive effect on the effectiveness of the accounting information system.

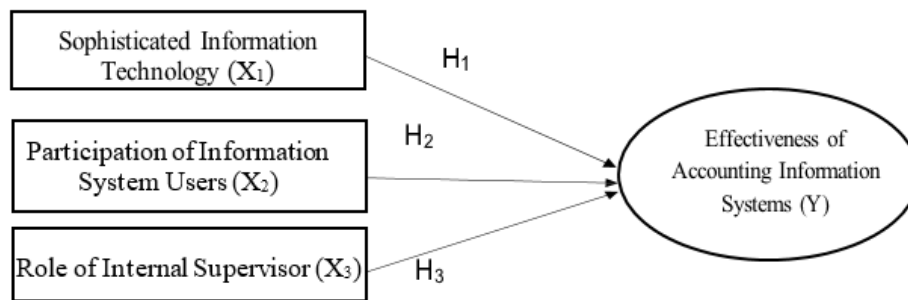


Fig. 1 Conceptual framework

III. RESEARCH METHODS

The research design used in this study is a quantitative approach in the form of associative. The quantitative approach in the form of associative explains the influence of the independent variable on the dependent variable, namely to determine the effect of sophistication in information technology, participation of information system users, and the role of internal supervisors on the effectiveness of accounting information systems. This study took as many as 12 VCI with 3 respondents from each VCI for a total of 36 respondents. Respondents in this study were administrators who doubled as operational implementers of VCI using SIA. The sampling technique used was purposive sampling. The data collection used in this study was carried out by conducting a field survey using a questionnaire. Analysis of the data used in this study using multiple linear regression

The effectiveness of the Accounting Information System (Y) is the expected success of the results obtained from the work that has been done. This study using a Likert scale while the indicators used are as follows: data security, time, relevance, and involvement.

The sophistication of Information Technology (X₁) that currently exists has a very rapid development and is even capable of producing a variety of system technologies designed to assist and facilitate human work to produce the best information, therefore companies that are supported by modern application technology are expected to be able to provide a positive impact for the company to produce timely, accurate and reliable financial statement information. In this study using a Likert scale with indicators are as follows: technological sophistication, information sophistication, functional sophistication, and managerial sophistication.

Participation of Information System Users (X₂) can improve the performance of the accounting information system through the delivery of information or system development by the needs of the user. This study using a Likert scale with indicators are as follows: participating in participation, improving the relationship between management users and

information system experts, proposing how and what of the system to be built, user desires are more precise and reduce system maintenance costs.

The internal Supervisor (X3) has a very important role in assessing the effectiveness of the accounting information system. The variables measured are instruments related to operational audits and accounting information system assessments. From the operational audit and assessment of the accounting information system, it can be seen and compared with the effectiveness of the accounting information system. This study using a Likert scale with indicators used : following independence, professional expertise, scope of work, implementation of audit activities, and management of the audit department.

IV. RESULTS AND DISCUSSION

Multiple linear regression analysis was used to analyze the effect of the independent variables (information technology sophistication, participation of users of accounting information systems and the role of internal supervisors) on the dependent variable, namely the effectiveness of accounting information systems.

Table 1. Results of multiple linear analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.589	2.768		1.213	.833
	Sophisticated Information Technology	.245	.064	.472	3.792	.001
	Participation of AIS Users	.334	.106	.392	3.135	.004
	Role of Internal Supervisor	.187	.168	.127	1.115	.003
Adjusted R Square : .588						
F : 17.627						

The value of Adjusted R Square is 0.588, which means that the influence of sophisticated information technology, the participation of users of accounting information systems and the role of internal supervisors on the effectiveness of the accounting information system is 58.8 percent, while the remaining 41.12 percent is influenced by other factors outside the model. From the results of the SPSS calculation, it was found that the sig test results. F of 0.000 which is smaller than the significant value of 0.05 ($0.000 < 0.05$). These results indicate that the sophistication of information technology, the participation of users of accounting information systems and the role of internal supervisors simultaneously influence the effectiveness of accounting information systems.

The effect of the sophistication of information technology on the effectiveness of accounting information systems

The sig.t value of the influence of information technology sophistication (X1) on the effectiveness of accounting information systems (Y) of 0.001 is less than the significant value of 0.05. This figure shows that the sophistication of information technology has a positive and significant effect on the effectiveness of accounting information systems. This means that the higher the level of sophistication of information technology, the higher the level of effectiveness of the accounting information system. These results support previous research conducted by Arisman & Fuadah (2017) and Nguyen & Nguyen (2020) which state that the sophistication of information technology has a positive and significant effect on the effectiveness of accounting information systems.

The effect of user participation in accounting information systems on the effectiveness of accounting information systems

The sig.t value of the participation of the accounting information system users (X2) on the effectiveness of the accounting information system (Y) is 0.004 less than the significant value of 0.05. This figure shows that the participation of users of the accounting information system has a positive and significant effect on the effectiveness of the accounting information system. This means that the higher the level of user participation in the application of accounting information systems, the higher the level of effectiveness of accounting information systems within the company. These results support previous research conducted by Putranto & Chasbiandani (2020) and Lahuddin et al. (2017) which found that the participation of users of accounting information systems has a significant effect on the effectiveness of accounting information systems.

The effect of internal supervisors on the effectiveness of accounting information systems

The sig.t value of the role of the internal supervisor (X3) on the effectiveness of the accounting information system (Y) is 0.003 less than the significant value of 0.05. This figure shows that the role of the internal supervisor has a positive and significant effect on the effectiveness of the accounting information system. This means that the better the role of the internal supervisor, the effectiveness of the accounting information system will also increase. These results support previous research conducted by Fakhimuddin (2018) which found that the role of internal supervisors has a significant influence on the effectiveness of accounting information systems.

Research Limitations

The number of respondents is only 36 people and only includes employees of the Village Credit Institution (VCI) in Marga District, so the results of this study cannot be generalized to other company environments. There are other variables that can affect the effectiveness of accounting information systems outside the model described in this study.

V. CONCLUSION

The sophistication of information technology has a positive and significant effect on the effectiveness of accounting information systems. This means that the higher the level of sophistication of information technology, the higher the level of effectiveness of the accounting information system. The participation of users of the accounting information system has a positive and significant effect on the effectiveness of the accounting information system. This means that the higher the level of user participation in the application of accounting information systems, the higher the level of effectiveness of accounting information systems within the company. The role of internal supervisors has a positive and significant effect on the effectiveness of the accounting information system. This means that the better the role of the internal supervisor, the effectiveness of the accounting information system will also increase. For future research, it is necessary to consider examining variables, factors, and other indicators beyond the sophistication of information technology, the participation of users of accounting information systems, and the role of internal supervisors to increase the effectiveness of the accounting information system. Such as employee performance variables, use of information technology, user technical abilities, etc

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