

Smart village: Evaluating the role of Siskeudes management in enhancing village fund accountability

Amir Mahmud¹, Nurdian Susilowati^{2*}, Bestari Dwi Handayani³, Ayu Leonita⁴, Arif Santoso⁵

^{1,2,*}Department of Accounting Education, Faculty of Economics and Business, Universitas Negeri Semarang, Indonesia, nurdiansusilowati@mail.unnes.ac.id (N.S.).

³Department of Accounting, Faculty of Economics and Business, Universitas Negeri Semarang, Indonesia.

⁵Master of Accounting, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia.

Abstract: Smart villages are basically about how rural communities make the best use of ICT and social innovation to create accountability. Rural communities worldwide are looking for solutions to improve suboptimal community services. Information and communication technology applications allow rural communities to improve their quality of life and provide excellent service. Smart villages are basically about how rural communities make the best use of ICT and social innovation to create accountability. The objective of this study is to investigate the impact of Siskeudes operator's competence, training quality, and internal control on the accountability of village fund management mediated by Siskeudes usage. The study employed a questionnaire survey with village officials in Ketanggungan Sub-district, Brebes Regency, with a sample size of 105 people, decided employing the purposive technique. Descriptive analysis was used to clarify the general perceptions of the survey respondents and path analysis to explore the direct and indirect effect. The results point out a direct effect of Siskeudes operator's competence, training quality, system of internal control, and Siskeudes usage on the village fund accountability. Furthermore, Siskeudes usage mediates Siskeudes operator's competence, training quality, and system of internal control on accountability of village fund management. To ensure effective accountability reporting from village governments, it is important to strengthen officials' competencies, provide targeted training to improve operational efficiency, and implement robust control systems. In addition, the development of an integrated village financial system can facilitate transparent reporting and minimize the risk of misappropriation of funds.

Keywords: Internal control, Siskeudes operator's competence, Siskeudes usage, Smart village, Training quality, Village accountability.

1. Introduction

Transformation village digitalization has changed habits. Government activities use diverse applications, technology, information, and communication to make jobs easier [1]. Waves utilization of the Internet of Things (IoT) provides impact improvement knowledge in governance villages based on data or websites. The utilization of technology, information, and communication is one of the tools used to measure the success of an organization's government. The utilization of digital technology in e-government indicates the achievement of government governance efficiency and initiative to support sustainable development [2]. Government villages that adopt e-government are promising effective and transparent service, participation increasing society, and reducing the domination of government villages in making decisions [3], [4].

Village with smart governance optimizes digital technology to support the availability of basic services and services that are effective and efficient for the public [5]. On this pillar, the indicator is organization service basic, capacity institutional village and capacity equipment village; for accuracy and transparency of data in every development planning stage, services public, administration government village, empowerment public village and system supervision government village must become a priority.

Village development slogan not only builds infrastructure facilities for the public but also builds capacity for the community and strengthens capacity for every element of the public's power competitiveness [6]. Pillars of governance intelligence are part of the implementation of diverse conflicting regulations and have become a reference for governance improvement in government villages.

Indonesia, with more than 80,000 villages, has various rich potential. However, nowadays, much effort has yet to be put into digital transformation optimally. Still neat found administration village based paper (manual), up to service to society that still limited distance and time. A smart village is needed to accelerate the village's development with methods to increase intelligence, well-being and harmony among the local public [7], [8]. Convenience and speed access to digital technology spark awareness in several villages in Indonesia, which will be necessary for optimal digital implementation in every government village activity. This awareness makes them the best and most worthy digital village to become an example.

One of the pillars of a smart village is smart government [4], [9]. Smart government implements the use of digital technology to support the provision of essential services and public services effectively, as well as governance that emphasizes the capacity of village officials, village institutional capacity, and adequate essential service delivery capacity. Smart governance consists of several indicators: the provision of basic services, village institutional capacity and village apparatus capacity [10]. One manifestation of smart governance is the ease of obtaining public services through digital technology, such as applications that increase accountability [11], [12]. Implementing the village financial system (Siskeudes) is a form of support for smart government.

Accountability is an obligation borne by the party acting on the mandate (agent) to provide responsibility, compile, inform, and disclose all actions and activities that fall within its authority to the side that deliver the control (principal), which has the right and authority to demand such reporting [13]. Accountability could significantly go up general assurance, including at the village level. It becomes control of the village government for all actions taken [14].

Given the large amount of village funds received, the officials have to responsible for its management since the vast number of finances can also lead to inaccuracies statements. One of the causes of the misappropriation of finance is the unpreparedness of the village administration itself. When the government is not ready, the reporting of village fund accountability will impression slow down and fault in preparing financial reports. In practice, many misappropriations of village funds still occur, implying that management accountability has not yet been implemented properly [15]. In more detail, this phenomenon arises because the concepts of accountability, transparency, and participation are not applied in the organizer mode, and the understanding of village officials is still lacking. One of the causes of the large number of misappropriation of village funds is the absence of an excellent financial management monitoring system [16].

There is some misuse of authority by authority holders between what should be done and what is done regarding the accountability, as can be notice from the news published in [17] from 2015 to 2021 the field most prosecuted by law execution officials is corruption at the village level. There were 592 incidents of village corruption during these seven years, resulting in state losses of IDR 433.8 billion. The considerable extent of the amount of funds allocated for rural growth coincides with the increase in corruption in the village. Village funds totaling IDR 400.1 trillion have been disbursed for village development needs from 2015 through 2021. There is a need to overcome extreme poverty and encourage physical development through community development activities. According to [17], village governments often commit several types of corruption: bribery, budget cuts, abuse of authority, misappropriation of funds, and embezzlement. Corruption committed by village governments will cause losses directly felt by the community.

Based on the initial observations of researchers in the villages in Ketanggungan Sub-District, Brebes Regency, there were several problems in the village fund management accountability. They still experienced delays in reporting village financial accountability reports. This was caused by the inaccuracy of time spent implementing work programs. Many village officials mandated as Siskeudes operators have also not yet mastered the app, while it is very crucial for inputting financial reports that

the central government can directly see. The participation is still lacking. These problems triggered delays in receiving village funds for the next stage. Hence, further technological guidance is needed by the central government.

The first factor affecting accountability is the Siskeudes operator's competence, an ability based on the knowledge, skills, and work ethic fundamental to perform or carry out tasks. The competence of the Siskeudes operator plays a crucial role in the accountability of village fund management because accountability will increase along with the level of competence of the Siskeudes operator. The higher degree of competence can create the good accountability principle in managing village funds [18]. According to [19], Siskeudes operator's competence significantly affects the accountability fund. So, the operator competence establishes the success of financial management.

Furthermore, accountability reflects the responsibility of the village government to the community. Accountability also creates excellent service to the community, thereby creating satisfaction. This straightens with the stewardship theory, which reveals that one must have qualified and competent human resources to manage village funds. Therefore, it is necessary to have quality training in village financial management to manage village finances properly [20]. The system of internal control is a procedure to preserve an institution's capital from all forms of abuse, make sure the availability of financial information, and legitimate provisions are carried out properly [14].

The other factor is the Siskeudes usage, namely the use of provided platform (Siskeudes) regarding village accounting control including planning, implementation, and notification of financial electronically. The financial system facilitates village financial reporting by the central government. Fraudulent activities can be minimized through computerized and systematic reporting, thus making financial reports more accountable. In addition, the use of financial systems can increase performance accountability [16].

Stewardship theory proposed by [21] describes a state where director are not motivated by individual goals but for the organization's benefit so that managers can achieve a high level of performance as expected by the company. The theory is based on cooperative behavior within an organization that ensures that services are always provided. An organization will be satisfied if it offers quality services. Government agencies are more focused on providing services and improving the community's welfare than making profits. The government agency referred to in this study is the village government, where village officials are responsible for their communities, especially in managing village funds. It is one of the duties and authorities of the village government. In other words, someone with great dedication and organizational competence must be part of managing village funds.

Village fund management officials should prioritize responsibility over personal interests to fulfill the village government's desire to achieve the best results in their duties as village fund managers. Considering how difficult it is to manage village finances; village officials can be considered village welfare. Effective management of village funds requires planning, implementation, management, and reporting. Village financial management officials will produce accountability reports if supported by the Siskeudes operator's competence, the training quality, and an effective control system.

The existence of village apparatus plays an important role in creating good village governance. This can be done by developing capacity such as participating in training or education in the financial field. The quality of training can improve competence which can ultimately determine accountability. The stewardship theory proposed by [21], which revealed that village officials who function as services must serve as a form of accountability to make wise decisions and carry out their respective duties by providing quality services. This is assisted by several preliminary studies; [22], [23], [19], [13], and [24] which explain the Siskeudes operator's competence has a valuable impact on the accountability.

H₁. The Siskeudes operator's competence influences the accountability of village fund management.

Village financial management requires not only the support of infrastructure regulations but also eligible management resources who have reliable capability and dedication. One of the main factors influencing the accountability of village fund management is the existence of skilled human resources in managing village finances. In order for the government to have qualified human resources, it is necessary to have training in managing village finances. It must be maintained and believed that their abilities will increase through training activities for village officials. Good competence can create

transparent village financial management [20]. Next, the village officials responsible for managing village finances must have qualified human resources. The availability of competent and qualified human resources is expected to support sound and quality village fund management as stated by [20], [25], and [26].

H₂. The training quality influences the accountability of the village fund management.

Village governments need to effectively apply the principles of good governance, which is part of the public management concept. The implementation of a transparent and accountable financial system has an important role in realizing good village governance. The internal control system is vital in the financial management because it provides the framework for effective and responsible village financial management [27]. Village government as a steward in carrying out its duties, functions, and responsibilities will mobilize all its abilities and expertise. Several previous studies support this argument, namely those conducted by [28], [19], [13], and [29].

H₃. The system of internal control influences the accountability of village fund management.

The village financial system is designed to fulfill accountability obligations. Village officials, in their capacity as stewards, must adjust to the use of financial system technology due to the large number of budgets owned by the village and the ongoing growth and complexity of government operations. The sustainability of the Siskeudes in the village government rely on suitability for the responsibility [22]. Stewardship theory, which suggests that organizational success can be achieved by carrying out work effectively and efficiently so that the system can help the organization achieve its goals and make it easier for organizational managers to carry out their duties. This thesis is supported by several previous studies, namely those conducted by [30], [31], [32], and [16], which remark that it has significant role on the village accountability.

H₄. Siskeudes usage has impact on the village accountability.

Potential for misuse in villages can be reduced by managing well organized more easily when Siskeudes is used effectively in village governance. Thus, improving the skills of Siskeudes operators in managing village funds will increase the Siskeudes usage, which, if properly implemented, will improve the accuracy of village fund management accountability reports. The village financial system is a useful instrument for improving the skills of Siskeudes operators in directing village funds [22]. Stewardship theory provides services to the community and achieve organizational goals, quality competencies are needed.

H₅. The competency of Siskeudes operators has an impact on the accountability through the Siskeudes usage.

The training quality can improve accountability through Siskeudes usage. Village governments that conduct training for village officials can easily operate the village financial system (Siskeudes). This is because training will provide additional experience and skills to village officials as operators in the Siskeudes usage. Indirectly, the optimal Siskeudes usage is formed during the training [33]. In this case, the stewardship theory states that apparatus must have capability and competency. Achieving high competence and goals requires training. If apparatus has competence in operating the financial system, they will be more accountable later when making accountability reports. The training quality improves village officials' skills in operating Siskeudes.

H₆. Training quality has an impact on accountability through the Siskeudes usage.

Implementing the current internal control efficiently uses a computerized village financial system. The reliability of internal control is closely related to the accuracy of using Siskeudes because if the village government runs the internal control well, it will increase the optimality in the Siskeudes usage and will also increase the village fund management accountability [33]. Village apparatus are responsible to the community with the aim that the system can ensure that the practice of the work runs smoothly and provides satisfaction. A sound control system, optimal Siskeudes usage, and accountable management of village funds will create a quality accountability report.

H7. The internal control system influences the village fund management accountability through the Siskeudes usage.

2. Methodology

2.1. Research Design

This quantitative view emphasizes the analysis of numerical data obtained by statistical methods. It was carried out in inferential research or by testing hypotheses to obtain the significance of the relationship between the variables studied. This research data was conducted in Ketanggungan Subdistrict, Brebes Regency in 2024 through online form. The data collection methods used were questionnaires and documentation. The questionnaire was used to determine the implementation of village fund management accountability, while documentation was used to obtain data on the number of village officials. The Google form questionnaire was sent directly to respondents via whatsapp. Furthermore, data processing is carried out. Results and discussion are carried out to obtain the output. The research framework is shown in Figure 1.

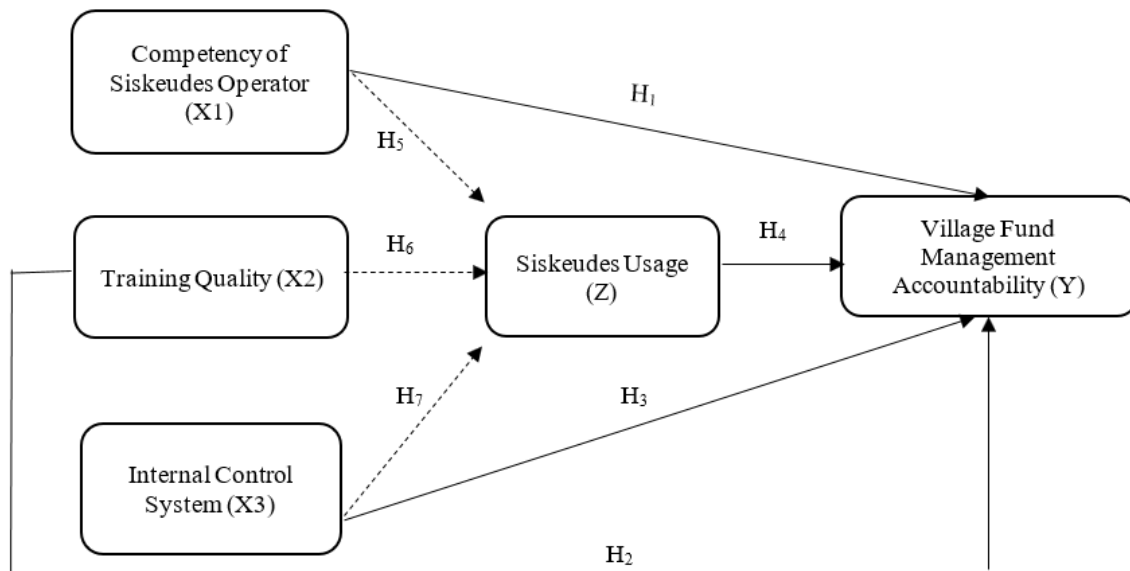


Figure 1.
Research framework.

2.2. Population and sample

The population was all village officials in Ketanggungan District, Brebes Regency, totaling 213 village officials. The sample was part of the village apparatus in Ketanggungan Subdistrict consisting of the head, secretary, treasurer, Siskeudes Operator, and head of village division. This research uses purposive sampling techniques. Furthermore, he samples in each village amounted to 5 people from 21 villages. There were 105 village officials.

2.3. Measurement Instrument

2.3.1. Accountability of Village Fund Management

Accountability is complete control of the management of village fund apparatus for the implementation of institutions activities, so the function of the government, in this case, as a pioneer is significant in accountable government performance to the community. In this study, the indicators measuring village fund management's accountability follow Minister of Home Affairs Regulation No.113 of 2014 concerning Village Financial Management in [34], specifically preparation, actualization, supervision, summarizing, and accountability.

2.3.2. Siskeudes Operator's Competence

Siskeudes operator's competence is based on the knowledge, fundamental skills, and work ethic required by village officials to operate the village accounting system. This competence plays a crucial

role. According to [14], there are three dimensions in measuring indicators of Siskeudes operator's competence, including knowledge, skills, and attitudes.

2.3.3. Training Quality

Training is a process deliberately designed to change a person's behavior, attitudes, knowledge, and skills through learning opportunities to improve performance in various tasks in the hope that each person can grow into an individual who can meet the organization's current and future labor needs. The indicators for measuring the training quality were adapted from [35]. The indicators include Increasing knowledge, improving skills, accelerating completing work, reducing errors, improving quality, and increasing quantity.

2.3.4. Internal Control System

The system of internal control is an fundamental mechanism of bahavior and required regularly by leaders and all staff to contribute acceptable assurance of the performance of institutions mission through effective and efficient, accuracy of financial statements, arresting assets, and conformity with policies. Based on Government Regulation Number 60 of 2008, the indicators are environments and activities control, risk assessment, communication and information, and monitoring.

2.3.5. Siskeudes Usage

Siskeudes usage facilitates the preparation of financial reports and other reports related to village governments' use of village funds. Quality financial reports have relevant, reliable, understandable, and comparable data to prevent misuse of village funds that should be managed effectively. There are indicators to measure the Siskeudes usage adapted from previous research conducted by [36]. The indicators include ease of use, risk of use, service features use, and utilization of application software.

2.4. Data Analysis

This study uses descriptive statistical and path analysis. Descriptive statistical analysis is a statistic used to describe the respondece and their characteristics [37]. Performing descriptive analysis in this study was assisted by the SPSS version 26 application program by first making a frequency distribution table or list to classify data criteria as general or average. Path analysis was execute using Structural Equation Modeling (SEM) analysis techniques with alternative Partial Least Square (PLS) methods through WrapPLS version 7.0 data processing software to test the Siskeudes usage in mediating the Siskeudes operator's competence, the training quality, and the internal control system on accountability. The PLS model consists of outer model (measurement model) and the inner model (structural model).

3. Results and Discussions

3.1. Findings

Based on descriptive statistical test in Table 1, village fund management accountability, Siskeudes operator's competence, training quality, internal control system, Siskeudes usage are in the very good category. The measurement model (outer model) results are carried out by looking at the outer loading value, AVE root, Cronbach's Alpha, and Composite Reliability. The convergent validity value is the outer loading value on the latent variable with its indicators. Measurements can be categorized as having convergent validity if the outer loading value is > 0.7 .

Table 1.
Descriptive statistics of all variables.

No.	Variables	Average	Category
1	Village accountability	67.88	Very good
2	Competency of Siskeudes operator	39.25	Very good
3	Training quality	53.83	Very good
4	Internal control	68.98	Very good
5	Siskeudes usage	53.31	Very good

The outer loading analysis of each indicator in this study was declared valid because the average outer loading value was above 0.7 and had met convergent validity. Convergent validity can also be seen from the Average Variance Extracted (AVE) value of > 0.50 , which indicates that, on average, a construct explains more than half of the variance of its indicators. The AVE value of each variable above 0.5 has met the eligibility requirements for the convergent validity test.

Discriminant validity is considered valid or meets the criteria if the root AVE value $>$ correlation between constructs. In this case, discriminating validity with the approach has been fulfilled or declared valid.

Table 2.
AVE root value.

	X₁	X₂	X₃	Z	Y
X ₁	(0.890)	0.285	0.482	0.553	0.615
X ₂	0.285	(0.960)	0.402	0.412	0.485
X ₃	0.482	0.402	(0.937)	0.644	0.707
Z	0.553	0.412	0.644	(0.912)	0.867
Y	0.615	0.485	0.707	0.867	(0.941)

It is known that the five latent variables have AVE root values in Table 2 greater than the variable correlation with others, namely Siskeudes operator's competence of 0.890, the training quality of 0.960, the system of internal control of 0.937, Siskeudes usage of 0.912, and the village fund management accountability of 0.941. Therefore, it can be concluded that five latent variables have passed the discriminant validity test. Composite reliability is used to test constructs in research. A variable is said to fulfill construct reliability if its composite reliability value is > 0.7 , which indicates a good level of reliability for that variable.

Table 3.
Composite reliability value.

Variables	Value composite reliability	Description
Competency of Siskeudes operator	0.972	Reliable
Training quality	0.993	Reliable
Internal control	0.991	Reliable
Siskeudes usage	0.983	Reliable
Village accountability	0.991	Reliable

Based on Table 3, the value of each construct has a value above 0.7 where the composite reliability value on the village fund management accountability variable (0.991), the competence of the Siskeudes operator (0.972), the training quality (0.993), the internal control system (0.991), and the Siskeudes usage (0.983) so that it can be stated that it meets the composite reliability criteria. A Cronbach's alpha value of > 0.7 has a good level of reliability for a variable.

Table 4.
Cronbach's alpha value.

Variables	Value	Description
Siskeudes operator's competence	0.967	Supported reliable
Training quality	0.992	Supported reliable
Internal control	0.990	Supported reliable
Siskeudes usage	0.982	Supported reliable
Village accountability	0.991	Supported reliable

Based on Table 4, cronbach's alpha value show that every construct has a value above 0.7, where the Cronbach's alpha value on the village fund management accountability is 0.991; Siskeudes operator's

competence is 0.967; training quality is 0.992; internal control is 0.990; and Siskeudes usage is 0.982. These values can be declared reliable.

Evaluation of inner model is the next stage that must be done after evaluating the PLS-SEM model. The inner model purposes to forecast the connection between latent variables, which is evaluated using several tests.

Table 5.
R-squared value.

Variables	R-squared	Adj. R-squared
Village fund management accountability	0.816	0.808
Siskeudes usage	0.510	0.495

The results of the R-squared test in Table 5 show that the coefficient of determination of the village fund management accountability is 81.6%, indicating that Siskeudes operator's competence influences village fund management accountability, training quality, the internal control system, and Siskeudes usage by 81.6%. Other variables outside this study influence the rest. Furthermore, the determination coefficient of the Siskeudes usage is 51%, which means that the Siskeudes usage variable is influenced by the competence of the Siskeudes operator, the training quality, and the internal control.

Table 6.
Q-squared value.

Variables	Q-squared value	Category
Village fund management accountability	0.803	Strong
Siskeudes usage	0.496	Strong

Based on Table 6, Siskeudes usage has a Q value of $Q > 0$, which is 0.803. This finding indicates that the accountability has solid predictive relevance. Then, the variable Siskeudes usage has a Q value of $Q > 0$, which is 0.496, implying that the variable of Siskeudes usage has a strong predictive relevance value. Thus, it can be concluded that this research model can predict research data well.

Table 7.
Effect size value.

	Effect size	Category
Siskeudes operator's competence -> Village fund management accountability	0.093	Weak
Training quality -> Village fund management accountability	0.054	Weak
Internal control system -> Village fund management Accountability	0.137	Weak
Siskeudes usage -> Village fund management accountability	0.531	Great
Siskeudes operator's competence -> Siskeudes usage -> Village fund management accountability	0.165	Medium
Training quality -> Siskeudes usage -> Village fund management accountability	0.062	Weak
Internal Control System -> Siskeudes usage -> Village fund management accountability	0.283	Medium

Based on Table 7, the effect size testing (f^2) aims to determine and evaluate how much impact the independent variables have on the existing structural model. The results indicate that the impact of Siskeudes usage on accountability has the greatest influence, namely 0.531. Meanwhile, the smallest influence is shown by training quality with an effect size (F^2) of 0.054, meaning that the influence is relatively weak.

3.2. Hypothesis Test

The research hypotheses were measure using structural equation modeling with WarpPLS. Hypotheses in WarpPLS analysis test direct effects and indirect effects can be seen in Figure 2. The decision rules for hypothesis testing are as follows: if the p value is 0.10 (10%), it is said that the significance is weak; if the p value is 0.05 (5%), it is said that the significance is moderate; if the p value is 0.01 (1%), it is said that the significance is very high. The following is a picture of the path coefficient path.

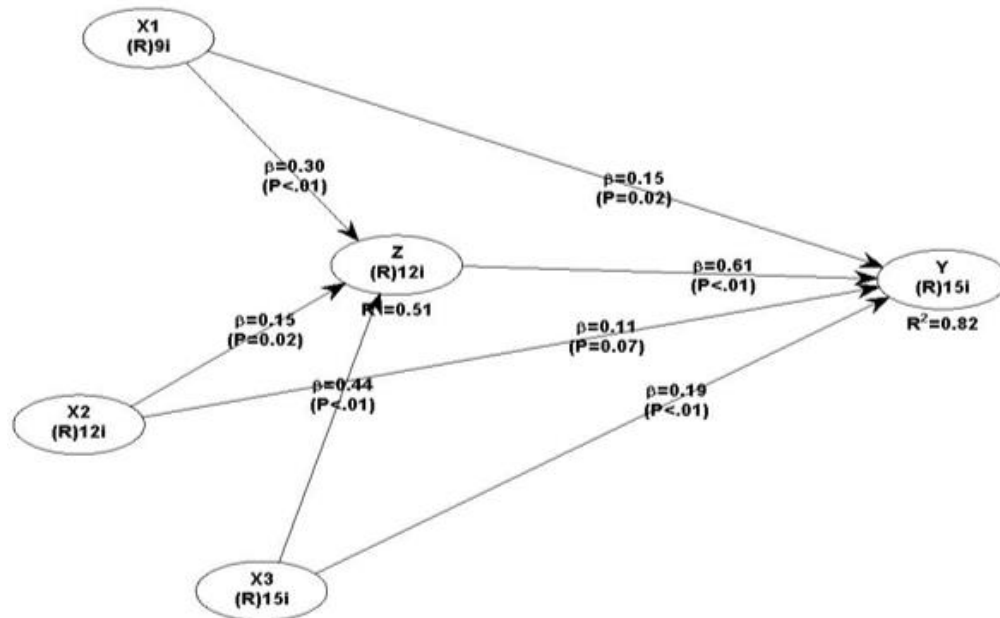


Figure 2.
Hypothesis test results.

Table 8.
Hypothesis test results.

Hypothesis		Path coefficient	P-values	Description
H1	Siskeudes operator competency > Village accountability	0.151	0.023	Accepted
H2	Training quality > Village accountability	0.111	0.07	Accepted
H3	Internal control > Village accountability	0.195	0.005	Accepted
H4	Siskeudes usage > Village Accountability	0.613	<0.001	Accepted
H5	Siskeudes operator's competence > Siskeudes usage > village accountability	0.298	<0.001	Accepted
H6	Training quality > Siskeudes usage > Village accountability	0.150	0.024	Accepted
H7	Internal control> Siskeudes usage > Village accountability	0.440	<0.001	Accepted

Table 8 shows a summary of the results of hypothesis testing in this study. The direct effect shows that the effect of the competence of the Siskeudes operator on accountability has p values of 0.023 with a significance level of 5%, meaning that the competence of the Siskeudes operator has a moderate significance influence on accountability. Then, the direct relationship between the Siskeudes operator competency variable on the village accountability is 0.151. This study shows that the Siskeudes

operator's competence positively influences the village accountability. If village apparatus has good capabilities, their accountability will also be good.

The p values of the training quality on the accountability of village fund management are more than 0.07 with a significant level of 10%, meaning that directly the variable training quality is significant, which has a weak impact. Then, the path coefficient value of the direct relationship between the training quality variable and accountability is 0.111. This study shows that the variable training quality has important impact on the accountability.

Furthermore, the p values are 0.005 with a significance level of 1%, meaning that the internal control is directly significant, which means a strong impact on the accountability. The path coefficient value of the relationship between internal control and accountability is 0.195. This exemplifies that the internal control variable positively influences accountability. High internal control will create good accountability. The p values are <0.001 with a significance level of 1%, meaning that Siskeudes usage directly has a strong significant influence on accountability. The path coefficient value of the Siskeudes usage variable is 0.613. This points out that Siskeudes usage directly positively affects accountability.

Table 9 shows a summary of the results of hypothesis testing for indirect effects. The research shows that the p values of the indirect effect of the Siskeudes operator's competence on the accountability are <0.001 with a significance level of 1%. This shows that the Siskeudes operator's competence has a strong significant influence on accountability through Siskeudes usage. Next, the path coefficients value of the indirect relationship between the competence on the accountability has a positive value of 0.298. This shows that the Siskeudes operator's competence also positively affects accountability through Siskeudes usage.

The indirect effect between the training quality variables on accountability is 0.024 with a significance level of 5%. This shows that training quality moderate the village accountability through Siskeudes usage. In addition, the path coefficient value of the indirect effect of the training quality variable on accountability through the Siskeudes usage is 0.150, which means positive value and positive effect. The significant test results show that the p values of the indirect relationship between the internal control and accountability through the Siskeudes usage are <0.001 with a significance level of 1%. It means that internal control has significant influence on accountability through the Siskeudes usage. Then the path coefficients value has a positive value of 0.440. The Table 9 shows that the Siskeudes usage partially mediates the Siskeudes operator's competence, the training quality, and the internal control village fund accountability.

Table 9.
Mediation analysis.

Relationship between variables	Direct influence	Description	Indirect effect	Description	Mediation description
Siskeudes operator's competence (X1) -> Siskeudes usage (Z) -> Village fund management accountability (Y)	0.151	Positive and significant	0.298	Positive and significant	Partial mediation
Training quality (X2) -> Siskeudes usage (Z) -> Village fund management accountability (Y)	0.111	Positive and significant	0.150	Positive and significant	Partial mediation
Internal control system (X3) -> Siskeudes usage (Z) -> Village fund management accountability (Y)	0.195	Positive and significant	0.440	Positive and significant	Partial mediation

3.3. Discussion

Nowadays, rural communities are increasingly open to technology. Technology in administrative services and village governance makes it easier for people to access these services. People do not have to come directly to the village office to access village administration. The application of information technology in village governance, such as the village financial system, has a function to create transparency and accountability. The implementation of smart government can be supported by internal capabilities, quality of human resources, innovative use of existing resources, and stakeholder involvement to implement smart governance effectively to increase accountability.

Siskeudes operator's competence significantly affects the village fund management accountability. Thus, better competence will be followed by increased village fund management accountability. Siskeudes operator's competence can be categorized as very good because it can be seen from the background of village officials regarding their cognitive, skills, and attitudes. Village officials already have the cognitive skills, and attitudes that are fundamental for execution their responsibility. The stewardship theory by [21], where this theory explains that village officials who function as services must provide as a form of accountability so that they can make wise decisions and carry out their duties by providing quality services. The results are consistent with [22], [38], [23]. Siskeudes operator's competence significantly affects accountability.

The training quality has a crucial impact on accountability, although has a weak influence. The better the training quality is, the higher the accountability of village fund management. The training organized by the village government in Ketanggungan Subdistrict, Brebes Regency, has been carried out well; village officials can follow it well, and it can be implemented in carrying out their duties in preparing financial statement accountability reports. It is align with the stewardship theory by [21], where the theory discloses that village officials responsible for managing village finances must have quality human resources. The availability of competent and qualified human resources is expected to support sound and quality village fund management. This is important so that decisions can support optimal service through the duties that village officials should carry out. It is in line with study obtained by [33], [39], and [20], remarking that the high quality of human resources will influence success in preparing village fund accountability reports.

The system of internal control positively and significantly impacts accountability. The internal control is included in the very good category, where the village government has implemented the control system optimally under applicable laws and regulations, the village government continuously checks accounting records every month, and the village government always follows up on any findings and suggestions given by the inspectorate so that the village fund management accountability can run optimally. The results align with [21], which explains that the village government, as a steward in carrying out its responsibilities, will mobilize all its abilities and expertise. The results supported by [27], [19], [28], and [29], describing that the control system significantly affects the village fund management accountability.

Siskeudes usage significantly and positively affects the village fund management accountability. Therefore, better Siskeudes usage will lead to better accountability. This variable is included in the very good category as it has been running optimally, can reduce the risk of irregularities and manipulation of accountability for village expenditure, and is effective in submitting accountability reports to the public. By so it can create a clean and accountable accountability report. This finding is in line with [21] research, saying that the success of an organization can be achieved by carrying out work effectively and efficiently with a proper system. Research by [27], [16], [31], and [40] support the finding, in which they disclose that Siskeudes usage positively and significantly affects fund management and reports. The platform can minimize errors or irregularities.

Siskeudes operator's competence can indirectly affect the village fund management accountability through Siskeudes usage as a mediating variable. This means that the Siskeudes usage can partially mediate the Siskeudes operator's capability on accountability. Village officials can utilize the features that support the optimal preparation of accountability reports, which can increase the village fund management accountability. Stewardship theory reveals that quality competencies are needed to provide

services to the community and achieve organizational goals. The success of village apparatus in implementing their duties is closely related to their level of competence.

The study by [22], which reveals that the Siskeudes usage can mediate the Siskeudes operator's competence on accountability. It means that village funds can only be managed by paying attention to the objective set by the community and government for the program being carried out. The village government has an obligation to maximize service performance by adjusting to community goals. Research by [36] and [32] convey that using the village accounting system can mediate the Siskeudes operator's capability on accountability.

The Siskeudes usage fully mediates the training quality on accountability, whereas the training quality before the variable Siskeudes usage shows insignificant results. In this case, the training organized by the village government has improved the ability of village apparatus to use Siskeudes. Thus, the better the training quality, the better the Siskeudes usage to increase the village fund management accountability will be. Stewardship theory reveals that one of the influences on the Siskeudes usage is the ability of village officials. Quality training is needed to achieve the set goals to have high competence. [39] reveal that the use of Siskeudes ICT plays a mediating part in the quality of training and the accountability of the village fund management. Furthermore, [33] and [41] state that success in making village financial accountability reports is influenced by the use of the financial system and the characteristic of human resources.

Internal control can indirectly impact the accountability of village fund management through the Siskeudes usage as a mediating variable. This means that the Siskeudes usage partially mediates the internal control on village accountability. By integrating Siskeudes into the process of managing village funds, villages can implement more structured internal controls. Siskeudes allow monitoring of the use of village funds. Thus, villages can establish appropriate control measures to reduce the risk of misuse of village funds, thereby increasing the level of accountability. This circumstance is accordance with the stewardship theory, where village officials are responsible to the community with the aim of the system to ensure that the implementation is running smoothly and can provide satisfaction to the community. A good control system will optimize the Siskeudes usage, escalating the village fund management accountability. According to [33], [41], and [42], internal control system and Siskeudes usage affect accountability. Next, internal control can also minimize the misuse of village funds.

4. Conclusion

In this work, village apparatus in preparing accountability reports require adequate competence, quality training, a good internal control system, and an adequate village financial system. Village officials must have competence in directing village funds and be able to prepare accountability reports properly, which can improve the village fund management accountability. High competence can be achieved with higher education. In addition, competence is formed through training organized by the central and local governments. The high quality of human resources will influence the success of preparing village fund accountability reports. This level of success must be balanced with the quality of human resources. Village officials can improve their skills in preparing accurate and accountable reports through effective and specific needs-oriented training.

The process organizes and manage village funds by legislation and fulfill accountability is trusted by an excellent internal control system. The government implements the concept of internal control by encouraging legal and regulatory compliance and reporting on managing village funds in a way that can be trusted to achieve practical goals. In addition, the Siskeudes usage supports village officials in managing village funds and integrated financial reporting to minimize errors or irregularities in village fund management. The implementation of the village financial system is an important factor in creating accountable financial reports.

The implication of this research explains that the community fully entrusts the management of village funds to the village government. The governments that manage village funds must carry out all accountability up to making quality accountability reports. In achieving community welfare, village governments must have Siskeudes operator's competence, training quality, and good control system. To achieve good accountability, adequate competence is required from village officials.

The village government also provides opportunities for village officials to participate in self-development so that their competence increases and becomes professional. Increasing the capabilities of village officials can create high levels of financial accountability. Accountable financial reports are realized by controlling the preparation of these financial reports. To provide accountability reports to the community, the village government must streamline the internal control system in the organization.

Future research can investigate other factors such as budget target clarity, transparency, accessibility, and leadership style. Future research can also examine current phenomena by analyzing government policies on village accountability. In addition, explore factors that influence smart government implementation such as evaluating the use of websites and other service applications.

Copyright:

© 2024 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] F. Tejedo-Romero, J. F. F. E. Araujo, Á. Tejada, and Y. Ramírez, "E-government mechanisms to enhance the participation of citizens and society: Exploratory analysis through the dimension of municipalities," *Technol. Soc.*, vol. 70, no. March, 2022, doi: 10.1016/j.techsoc.2022.101978.
- [2] C. Castro and C. Lopes, "Digital Government and Sustainable Development," *J. Knowl. Econ.*, vol. 13, no. 2, pp. 880–903, 2022, doi: 10.1007/s13132-021-00749-2.
- [3] C. G. Sinha, "E-Governance: Impact on Society," in *Digitization of Economy and Society*, Apple Academic Press, 2021.
- [4] E. A. Manapa Sampetoding and M. Er, "Digital Transformation of Smart Village: A Systematic Literature Review," *Procedia Comput. Sci.*, vol. 239, no. 2023, pp. 1336–1343, 2024, doi: 10.1016/j.procs.2024.06.304.
- [5] R. Purnamasari, A. I. Hasanudin, R. Zulfikar, and H. Yazid, "Do internal control and information systems drive sustainable rural development in Indonesia?," *J. Open Innov. Technol. Mark. Complex.*, vol. 10, no. 1, p. 100242, 2024, doi: 10.1016/j.joitmc.2024.100242.
- [6] K. Hofer, M. Wicki, and D. Kaufmann, "Public support for participation in local development," *World Dev.*, vol. 178, no. February, p. 106569, 2024, doi: 10.1016/j.worlddev.2024.106569.
- [7] C. García Fernández and D. Peek, "Connecting the Smart Village: A Switch towards Smart and Sustainable Rural-Urban Linkages in Spain," *Land*, vol. 12, no. 4, 2023, doi: 10.3390/land12040822.
- [8] M. Xiao, S. Luo, and S. Yang, *Synergizing Technology and Tradition: A Pathway to Intelligent Village Governance and Sustainable Rural Development*, no. 0123456789. Springer US, 2024, doi: 10.1007/s13132-024-01937-6.
- [9] S. Renukappa, S. Suresh, W. Abdalla, N. Shetty, N. Yabbati, and R. Hiremath, "Evaluation of smart village strategies and challenges," *Smart Sustain. Built Environ.*, 2022, doi: 10.1108/SASBE-03-2022-0060.
- [10] A. Oktarina *et al.*, "Smart Governance in Indonesian Village Towards SDGs Achievement," *Polit. Indones. Indones. Polit. Sci. Rev.*, vol. 8, no. 1, pp. 107–122, 2023, doi: 10.15294/ipsr.v8i1.39168.
- [11] O. Velsberg, U. H. Westergren, and K. Jonsson, "Exploring smartness in public sector innovation - creating smart public services with the Internet of Things," *Eur. J. Inf. Syst.*, vol. 29, no. 4, pp. 350–368, 2020, doi: 10.1080/0960085X.2020.1761272.
- [12] D. Valle-Cruz, "Public value of e-government services through emerging technologies," *Int. J. Public Sect. Manag.*, vol. 32, no. 5, pp. 473–488, 2019, doi: 10.1108/IJPSM-03-2018-0072.
- [13] R. Amaliya and Maryono, "Pengaruh Kompetensi, Sistem Pengendalian Internal, Komitmen Organisasi dan Partisipasi Masyarakat terhadap Akuntabilitas Pengelolaan Dana Desa," *J. Ilm. Komputerisasi Akunt.*, vol. 13, no. 1, pp. 122–133, 2020.
- [14] A. Widyatama, L. Novita, and Diarespati, "Pengaruh Kompetensi Dan Sistem Pengendalian Internal Terhadap Akuntabilitas Pemerintah Desa Dalam Mengelola Alokasi Dana Desa," *AKUA J. Akunt. dan Keuang.*, vol. 1, no. 1, pp. 122–129, 2017, doi: 10.54259/akua.v1i1.140.
- [15] P. E. Myende, M. A. Samuel, and A. Pillay, "Novice rural principals' successful leadership practices in financial management: Multiple accountabilities," *South African J. Educ.*, vol. 38, no. 2, pp. 1–11, 2018, doi: 10.15700/saje.v38n2a1447.
- [16] N. K. Mega, L. Kalangi, and P. M. Kapojos, "Pengaruh Sistem Keuangan Desa (Siskeudes) Terhadap Akuntabilitas Pengelolaan Keuangan Desa Pada Kabupaten Bolaang Mongondow Timur," *Going Concern J. Ris. Akunt.*, vol. 17, no. 3, pp. 150–161, 2022.
- [17] I. C. (ICW) WATCH, "Sesat Pikir Perpanjangan Masa Jabatan Kades: Niat Buruk Politisasi Desa dan Suburkan Oligarki Desa."
- [18] P. I. Pratiwi and R. S. Dewi, "Pengaruh Kompetensi Aparat Desa Dan Partisipasi Masyarakat Terhadap Akuntabilitas Pengelolaan Dana Desa Di Kecamatan Namorambe Kabupaten Deli Serdang," *Indones. J. Bus. Anal.*, vol. 1, no. 2, pp. 183–198, 2021, doi: 10.54259/ijba.v1i2.69.

- [19] D. A. Budiana, D. Said, and N. -, "the Effect of Village Device Competencies and Internal Control System on Accountability of Village Management," *Sci. Res. J.*, vol. VII, no. I, pp. 10–20, 2019, doi: 10.31364/scirj/v7.i1.2019.p0119599.
- [20] D. Nursin, S. Syamsuddin, and N. Nirwana, "Pengaruh Kualitas SDM, Pemanfaatan Teknologi Informasi, Sistem Pengendalian Intern terhadap Pengelolaan Keuangan Dana Desa dengan Kecerdasan Spiritual Sebagai Variabel Moderasi," *Owner*, vol. 7, no. 1, pp. 77–101, 2022, doi: 10.33395/owner.v7i1.1359.
- [21] L. Donaldson and J. H. Davis, "Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns," *Aust. J. Manag.*, vol. 16, no. 1, pp. 49–64, 1991, doi: 10.1177/031289629101600103.
- [22] I. R. Bawono, A. D. M. Kinasih, and A. K. Rahayu, "Factors Affecting Accountability of Village Fund Management through Implementation of the Village Financial System (SISKEUDES)," *J. Account. Invest.*, vol. 21, no. 3, 2020, doi: 10.18196/jai.2103160.
- [23] D. I. B. 2021 Madhalena Giriani, Neneng Dahlia, "Pengaruh Kompetensi Aparatur, Komitmen Organisasi, dan Partisipasi Masyarakat Terhadap Akuntabilitas Pengelolaan Dana Desa Di Kecamatan Batujajar," *Indones. Account. Res. J.*, vol. 1, no. 3, pp. 480–492, 2021.
- [24] V. R. Laia, A. Simanjuntak, and T. D. Sipayung, "Pengaruh Kompetensi Aparatur, Partisipasi Masyarakat, Pemanfaatan Teknologi Informasi, dan Komitmen Organisasi Pemerintah Desa Terhadap Akuntabilitas Pengelolaan Dana Desa (Studi Empiris di Desa Simandraolo dan Desa Hilinamazihono Kabupaten Nias Selatan)," *J. Manaj.*, vol. 8, no. 2, pp. 1–16, 2022.
- [25] R. Ramadhaniyah and R. M. Arif, "Pengaruh Kualitas Sdm Dan Sistem Akuntansi Terhadap Akuntabilitas Pengelolaan Keuangan Desa," *JEMBA (Jurnal Ekon. Manajemen, Bisnis dan Akuntansi)*, vol. 1, no. 4, pp. 735–744, 2022.
- [26] S. Umaira and A. Adnan, "Pengaruh Partisipasi Masyarakat, Kompetensi Sumber Daya Manusia, Dan Pengawasan Terhadap Akuntabilitas Pengelolaan Dana Desa (Studi Kasus Pada Kabupaten Aceh Barat Daya)," *J. Ilm. Mhs. Ekon. Akunt.*, vol. 4, no. 3, pp. 471–481, 2019, doi: 10.24815/jimeka.v4i3.12580.
- [27] M. A. Arfiansyah, "Pengaruh Sistem Keuangan Desa Dan Sistem Pengendalian Intern Terhadap Akuntabilitas Pengelolaan Dana Desa," *J. Econ. Bussines Account.*, vol. 7, no. 1, pp. 130–136, 2020, doi: 10.31539/costing.v7i1.5963.
- [28] Widya Wigunawati & Kurnia Rina, "The Influence Of Village Apparatus Competency, Utilization Of Information Technology And Internal Control System On Village Fund Management Accountability," *J. Akunt. dan Keuang. Univ. Jambi*, vol. 8, no. 1, p. 84, 2023.
- [29] H. Umar, S. Usman, and R. B. R. Purba, "The influence of internal control and competence of human resources on village fund management and the implications on the quality of village financial reports," *Int. J. Civ. Eng. Technol.*, vol. 9, no. 7, pp. 1526–1531, 2018.
- [30] A. Imron, "Pengaruh Peran Perangkat Desa, Kebijakan Desa, Aksesibilitas Laporan Keuangan, Dan Siskeudes Terhadap Akuntabilitas Desa Di Kecamatan Pemalang," *J. Aktual Akunt. Keuang. Bisnis Terap.*, vol. 6, no. 1, p. 1, 2023, doi: 10.32497/akunbisnis.v6i1.4570.
- [31] P. A. D. R. Dewi and I. P. Julianto, "Pengaruh Penerapan Sistem Informasi Keuangan Desa Dan Pengendalian Internal Terhadap Akuntabilitas Dana Desa," *J. Akunt. Profesi*, vol. 11, no. 2, pp. 281–292, 2020.
- [32] M. A. Arfiansyah, "Pengaruh Kapasitas Aparatur Desa terhadap Akuntabilitas Pengelolaan Dana Desa Di Kabupaten Wonogiri dengan Sistem Keuangan Desa sebagai Variabel Intervening," *Lisyyabab J. Stud. Islam dan ...*, vol. 2, no. 1, pp. 49–68, 2021.
- [33] S. D. Eprilsa and G. S. Budiwitjaksono, "Analisis Kualitas Sumber Daya Manusia, Dan Sistem Pengendalian Intern Pemerintah (SPIP) Terhadap Efektivitas Penggunaan Sistem Keuangan Desa (SISKEUDES)," *J. Econ. Bussines Account.*, vol. 6, no. 1, pp. 748–757, 2022, doi: 10.31539/costing.v6i1.4216.
- [34] N. Hasnita, M. Akib, E. Ernawati, and R. Rosnawintang, "an Analysis of Village Financial Management: the Improtance of Regulations, Village Financial Manager Competencies and Commitment To Task in Kabupaten Konawe Selatan," *Mega Akt. J. Ekon. dan Manaj.*, vol. 8, no. 2, p. 71, 2019, doi: 10.32833/majem.v8i2.87.
- [35] Yusup, Nurmalsyah, and Syahrani, "Pengaruh Pelatihan Terhadap Kinerja Aparatur Pemerintah Desa di Kecamatan Paju Epat Kabupaten Barito Timur," *J. Adm. Publik Adm. Bisnis*, vol. 1, no. 1, 2018.
- [36] W. Ningsih and W. A. Anggraeni, "Determinan Akuntabilitas Pengelolaan Dana Desa Dengan Sistem Keuangan Desa Sebagai Pemediasi," *J. Akunt. Manad.*, vol. 4, no. 3, pp. 602–619, 2023, doi: 10.53682/jaim.vi.7635.
- [37] D. Sugiyono, "Metode penelitian kuantitatif, kualitatif dan R & D," *Alfabeta*, vol. 15, no. 2010, 2018.
- [38] E. W. Pahlawan, A. Wijayanti, and S. Suhendro, "Pengaruh kompetensi aparatur desa, sistem pengendalian internal, pemanfaatan teknologi informasi dan partisipasi masyarakat terhadap akuntabilitas pengelolaan dana desa," *Indones. Account. J.*, vol. 2, no. 2, p. 162, 2020, doi: 10.32400/iaj.29261.
- [39] N. Nurhayati, D. Purnama, and M. Mustika, "Faktor-Faktor Pendukung Akuntabilitas Pengelolaan Keuangan Desa," *JIAFE (Jurnal Ilm. Akunt. Fak. Ekon.*, vol. 7, no. 2, pp. 215–234, 2021, doi: 10.34204/jiafe.v7i2.4072.
- [40] S. M. Tiarno and G. S. Budiwitjaksono, "Pengaruh Kompetensi Sumber Daya Manusia, Sistem Pengendalian Intern Pemerintah (Spip), Dan Penggunaan Siskeudes Terhadap Akuntabilitas Pengelolaan Dana Desa," *J. Ilm. Manajemen, Ekon. Akunt.*, vol. 7, no. 2, pp. 1596–1608, 2023, doi: 10.31955/mea.v7i2.3015.
- [41] I. N. D. Setiadi, S. Devi, and M. Si, "Pengaruh Tingkat Pendidikan , Pelatihan , Dan Sistem Pengendalian Internal Terhadap Kualitas Laporan Keuangan Desa Berbasis Siskeudes Universitas Pendidikan Ganesha," vol. 11, no. 1, pp. 167–177, 2020.
- [42] R. Yulia, "Pengaruh Kualitas Data dan Sistem Pengendalian Intern Pemerintah terhadap Kualitas Informasi Akuntansi dengan Kualitas Sistem Keuangan Desa sebagai Variabel Intervening pada Nagari di Kabupaten Tanah Datar," *JUSIE (Jurnal Sos. dan Ilmu Ekon.*, vol. 4, no. 02, pp. 118–128, 2019, doi: 10.36665/jusie.v4i02.224.