Soedirman Accounting, Auditing, and Public Sector Journal (SAAP)
Volume 5 Issue 1, June 2026: 1-16
ISSN: 2962-2336

THE EFFECT OF VILLAGE OFFICIALS' DIGITAL LITERACY AND SOCIAL MEDIA TRANSPARENCY ON DIGITAL FRAUD PREVENTION IN VILLAGE FUND GOVERNANCE

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Abstract

This study aims to examine the effect of village officials' digital literacy and social media transparency on digital fraud prevention in village fund governance. In the context of village government, digital fraud may arise from the misuse of information systems, manipulation of financial data, lack of budget information disclosure, and weak technology-based supervision. Village officials' digital literacy is an important factor that enables village officials to use digital technology appropriately in the process of village financial governance. In addition, social media transparency also serves as a means of public information disclosure that can strengthen community oversight of village fund management. This study employs a quantitative approach using a survey method involving 43 respondents who are related to village financial governance. The research data were analyzed using multiple linear regression or Structural Equation Modeling–Partial Least Squares (SEM-PLS) to examine the relationships among variables as well as the validity and reliability of the research instruments. The findings reveal that village officials' digital literacy and social media transparency each have a significant effect on digital fraud prevention in village fund governance. Furthermore, village officials' digital literacy and social media transparency have a positive effect on digital fraud prevention in village fund governance.

Keywords: *Village Officials' Digital Literacy; Social Media Transparency; Digital Fraud Prevention*

Citation: Arianto, B. & Sari, G. I. (2026). The Effect of Village Officials' Digital Literacy and Social Media Transparency on Digital Fraud Prevention in Village Fund Governance. *Soedirman Accounting, Auditing, and Public Sector Journal (SAAP).* 5(1):1-16.

INTRODUCTION

Village fund governance is one of the essential instruments in the administration of village government that is transparent, accountable, participatory, and oriented toward improving community welfare (Garung & Ga, 2020). Village funds hold a strategic position because they are used to support village infrastructure development, community empowerment, improvement of public services, strengthening of the local economy, and the achievement of village independence. Village fund governance is not merely understood as an administrative process related to planning, budgeting, implementation, reporting, and accountability, but also as a public governance process that is directly linked to community trust in village government (Susliyanti & Binawati, 2020). The greater the amount of funds managed by village governments, the greater the demand for such governance to be carried out openly, orderly, effectively, efficiently, and free from irregularities.

Good village fund governance requires a balance between compliance with regulations, the capacity of village officials to operate administrative systems, and community involvement in the supervision process. The principle of transparency is needed so that communities can understand the planning, implementation, and realization of village fund utilization. The principle of accountability is required so that every use of the budget can be justified both administratively and substantively (Rachmawati & Indudewi, 2024). Meanwhile, the principle of participation is necessary so that communities are not merely beneficiaries of village programs, but also have the space to take part in supervision and provide input on the development process (Watu et al., 2023). Thus, village fund governance should ideally focus not only on the preparation of accountability documents, but also on information disclosure and the prevention of irregularities from the earliest stages.

Nevertheless, village fund governance continues to face various challenges, particularly in relation to the potential for fraud. Fraud in village fund governance may occur in various forms, such as manipulation of accountability reports, cost mark-ups in activities, fictitious transactions, budget misuse, document falsification, discrepancies between reports and actual activity implementation, and abuse of authority in the procurement of goods and services (Tumuhulawa et al., 2024). Such fraud not only harms village finances, but may also obstruct development, reduce the quality of public services, weaken public trust, and create a negative image of village government. Therefore, fraud prevention is an important aspect in strengthening clean and integrity-based village fund governance (Maemunah & Utami, 2026).

Meanwhile, the development of digital technology has brought major changes to village government governance. Administrative digitalization, the use of financial information systems, reporting applications, electronic documentation, and the utilization of social media have become part of village government administration processes (Wahyiah, 2025). Digitalization provides opportunities for village governments to improve work efficiency, accelerate services, facilitate data storage, improve reporting quality, and expand community access to public information. However, at the same time, digitalization also presents new risks in the form of digital fraud. These risks emerge because village fund governance processes increasingly depend on digital systems, electronic data, account access, digital documents, and online communication (Cross, 2019).

Digital fraud in village fund governance can be understood as fraudulent or irregular acts committed by utilizing digital technology, information systems, electronic media, or digital spaces in the process of managing village funds. Forms of digital fraud may include manipulation of digital financial data, misuse of system access, alteration of electronic documents, uploading information that does not correspond to factual conditions, preparation of digital reports that do not reflect field realities, use of social media to construct an image of pseudo-transparency, and concealment of important information from the public (Ingle et al., 2025). In several contexts, digital fraud may be more difficult to identify than conventional fraud because traces of irregularities can be hidden within systems, electronic documents, or digital communication patterns that appear normal. Digital fraud prevention is becoming increasingly important because village fund governance today cannot be separated from the use of information technology (Chang et al., 2022). Digital fraud prevention cannot be carried out merely through the existence of applications or digital systems; it also requires the capacity of village officials to understand, use, manage, secure, and supervise digital technology appropriately. A good technological system does not necessarily guarantee good governance if the village officials operating it do not possess adequate digital capacity. Conversely, limited digital literacy may create opportunities for input errors, data manipulation, misuse of access, weak document verification, and low capacity to detect digitally based irregularities (Susetyo & Firmansyah, 2022).

Therefore, the digital literacy of village officials is one of the important factors in preventing digital fraud. The digital literacy of village officials is not only related to the ability to use computers, applications, or social media, but also includes the ability to understand digital information, verify data, maintain account security, manage electronic documents, understand the risks of technology misuse, and use technology ethically and responsibly (Tinmaz et al., 2022). Village officials with strong digital literacy will be better able to operate financial administration systems correctly, avoid data management errors, maintain the confidentiality and security of information, and recognize indications of irregularities in digital processes. In the context of village fund governance, digital literacy also supports the ability of village officials to present accurate information, update data in a timely manner, and ensure that digital documents used in budget accountability correspond to actual activity implementation (Kusumawati et al., 2025).

In addition to the digital literacy of village officials, another important factor in preventing digital fraud is social media transparency. Social media today functions not only as a means of informal communication, but has also become a digital public space that can be used by village governments to convey information on development, government activities, program realization, budget utilization, and documentation of village activities (Hukom & Setiadi, 2025). Through social media, village communities can obtain information more quickly, provide responses, express criticism, and supervise village activities. Thus, social media can serve as an instrument of public transparency that strengthens the relationship between village government and the community. Furthermore, social media transparency in village fund governance can support digital fraud prevention because open information enables the community to participate in supervising the use of village funds (Arianto, 2023). When village governments actively disclose information regarding activity plans, budget allocations, implementation progress, activity documentation, and the realization of fund utilization through social media, the space for concealing irregularities becomes smaller. Information disclosure can also increase social pressure on village officials to work more honestly, orderly, and responsibly. In addition, social media allows communities to compare information presented by the village government with factual conditions (Istanti & Sanusi, 2020). If discrepancies arise, the village community can provide input or question such information directly.

Nevertheless, the use of social media by village governments has not always been optimal, although social media has been widely used as a means of publishing activities. Social media should instead be used as an instrument of public accountability. The information conveyed is often general, incomplete, lacking budget details, failing to explain program achievements, or not supported by adequate evidence. Such conditions may create symbolic transparency, namely openness that appears visible on the surface but is not sufficiently strong to support community supervision (Dewi & Adi, 2019). In addition, low consistency in social media management, limited capacity of village officials in preparing digital information, and insufficient awareness of the importance of public disclosure may also hinder the effectiveness of social media as a means of preventing digital fraud. Another issue that needs to be examined is the gap between village government digitalization and human resource readiness (Wahyiah, 2025). Village governments may have used applications, information systems, or social media, but not all officials possess the same ability to understand digital risks and manage information accountably. This gap may cause technology use to remain merely administrative, without strengthening control and fraud prevention. Meanwhile, village communities are increasingly active in using social media to obtain information and express aspirations. This condition requires village governments not only to be present in digital spaces, but also to be able to present information that is accurate, open, relevant, and accountable.

Several previous studies have elaborated fraud prevention in the public sector through various perspectives, including internal control, accountability, transparency, officials' competence, individual morality, and community participation (Putri & Retnosari, 2023). These studies emphasize that fraud can be prevented through strengthening supervision systems, improving integrity, and involving the public in monitoring financial management. However, research that specifically links the digital literacy of village officials, social media transparency, and digital fraud prevention in village fund governance still needs further development (Asrah et al., 2024). Most studies continue to focus on conventional fraud and have not deeply discussed how fraud risks change when village governance enters the digital space (Biduri et al., 2022). Moreover, the increasing use of technology and social media in village government requires a new approach to understanding fraud prevention. This research gap serves as an important foundation for the present study.

In this context, the digital literacy of village officials is viewed as an internal capacity that can strengthen the village government's ability to use technology correctly and securely (Rosliani et al., 2025). Meanwhile, social media transparency is viewed as an external mechanism that can expand public oversight and strengthen village government accountability (Arianto, 2023). Both are expected to influence digital fraud prevention in village fund governance. In other words, digital fraud prevention requires not only technological systems, but also digitally competent officials and accessible information disclosure for the community (Hartono & Widiyarta, 2023). Accordingly, this study seeks to answer several main questions. First, does the digital literacy of village officials affect digital fraud prevention in village fund governance? Second, does social media transparency affect digital fraud prevention in village fund governance? Third, do the digital literacy of village officials and social media transparency affect digital fraud prevention in village fund governance? Thus, this study is expected to provide theoretical contributions to the development of studies on digital fraud, village fund governance, public sector digital literacy, and social media-based transparency.

LITERATURE REVIEW

Village Officials' Digital Literacy

Village officials' digital literacy refers to the ability of officials to understand, use, manage, evaluate, and secure digital-based information in carrying out village government duties. Digital literacy is not only related to technical skills in using technological devices, applications, or information systems, but also includes the ability to critically understand digital information, maintain data security, verify the validity of information, and use technology ethically and responsibly. In the context of village government, digital literacy has become increasingly important because various administrative processes, public services, financial reporting, and communication with the community have begun to shift toward digital-based systems. Village officials with adequate digital literacy are better able to implement effective governance, particularly in village fund governance. The use of village financial information systems, reporting applications, electronic documents, and digital communication media requires officials to manage data accurately and responsibly. Limited digital literacy may create risks such as data input errors, weak information security, low capacity to verify digital documents, and greater opportunities for financial data manipulation (Maulana & Setyaningrum, 2023). Therefore, village officials' digital literacy is one of the essential prerequisites for creating village fund governance that is transparent, accountable, and free from digital irregularities. From the perspective of digital governance, human resource capability is a key factor in determining the effectiveness of technology utilization. Technology will not provide optimal benefits if the village officials who use it do not possess adequate digital capacity.

Social Media Transparency

Social media transparency refers to the openness of village governments in delivering public information through social media platforms in a clear, relevant, timely, accessible, and accountable manner. Social media no longer functions merely as a means of informal communication, but has also become a digital public space that can be used to disseminate information regarding government activities, village development, budget utilization, program realization, and forms of accountability to the community. In the context of village government, social media can serve as an instrument of transparency that strengthens the relationship between village officials and the community. Transparency through social media plays an important role in expanding community access to information on village funds. Through social media, village governments can provide information regarding activity plans, budget allocations, development progress, activity documentation, and program implementation outcomes. Such information disclosure can encourage the community to participate in supervising the use of village funds. The more open the information presented, the greater the opportunity for the community to assess the alignment between planning, implementation, and the actual realization of activities (Zakariya et al., 2025). Thus, social media can function as a social control mechanism in preventing irregularities. However, social media transparency cannot be demonstrated merely through the number of posts about village government activities. Meaningful transparency must contain information that is relevant, accurate, understandable, and accountable. If social media is used only for ceremonial publication without providing substantive information regarding the use of village funds, its transparency function becomes weak. Therefore, social media transparency needs to be directed as a means of public accountability, not merely as a medium for institutional image-building. In this sense, effective social media transparency can narrow the space for digital fraud because public information can be monitored more widely by the community.

Digital Fraud Prevention

Digital fraud prevention refers to efforts to prevent fraud or irregularities committed through digital technology, information systems, electronic documents, communication applications, financial applications, or social media. Digital fraud can be understood as manipulative acts that use digital media to falsify information, alter data, conceal facts, or create evidence that makes a transaction, communication, or activity appear to have actually occurred. In village fund governance, digital fraud can take various forms. One example is the creation of falsified chat records to indicate that coordination, purchase approval, activity confirmation, or price agreements between village officials and certain parties have taken place. In fact, such communication may never have occurred or may have been edited to support inaccurate accountability reporting (Anthony et al., 2023). Another example is falsified transfer evidence, namely manipulated transaction screenshots in which the recipient's name, amount, date, or payment reference number is altered. Such evidence can be used to show that payment has been made, even though the actual transaction did not occur. Digital fraud may also take the form of electronic document manipulation, editing of digital receipts, falsification of electronic signatures, use of old photos as activity evidence, or social media publications that do not reflect factual conditions. Therefore, digital fraud prevention needs to be carried out through improving village officials' digital literacy, securing system access, verifying digital evidence, checking official bank account mutations, and disclosing information through social media.

Village Fund Governance

Village fund governance refers to the process of managing village funds, including planning, implementation, administration, reporting, accountability, supervision, and evaluation of village budget utilization. Good village fund governance must be based on the principles of transparency, accountability, participation, effectiveness, efficiency, and integrity. Village funds are an important instrument for promoting village development and community empowerment; therefore, their management must be conducted in an orderly, open, and responsible manner. In practice, village fund governance faces complex challenges. These challenges may include limited competence among officials, low understanding of digital systems, weak documentation, insufficient information transparency, low community participation, and the potential abuse of authority. The digitalization of village fund governance provides opportunities to strengthen efficiency and accountability, but it also brings new risks in the form of digital fraud (Wahyuni & Yulistiyono, 2021). Therefore, village fund governance in the digital era requires an approach that focuses not only on administrative compliance, but also on digital competence, information disclosure, and public oversight. Good village fund governance requires digitally competent officials and an open public communication mechanism. Village officials' digital literacy is needed so that administrative processes and financial reporting can be carried out correctly, securely, and accurately. Meanwhile, social media transparency is needed so that the community can obtain adequate access to information and participate in monitoring village funds.

Village Officials' Digital Literacy and Digital Fraud Prevention

Village officials' digital literacy has a close relationship with digital fraud prevention. Officials with adequate digital literacy are more capable of understanding the risks of technology misuse, maintaining data security, using information systems properly, and recognizing indications of digital manipulation in village fund management processes. In village fund governance, digital fraud may arise when village officials do not understand how to manage electronic documents, are unable to verify digital data, or lack awareness of system access security (Islamiyah et al., 2020). Theoretically, digital literacy can strengthen officials' capacity to carry out digital governance in an accountable manner. Digitally competent village officials are not only able to use applications, but also able to ensure that the data entered, stored, and reported are consistent with actual conditions (Arifin & Ariesmansyah, 2025). This capability is important to prevent report manipulation, account misuse, document alteration, or activity reporting that does not correspond to factual conditions. Thus, the higher the digital literacy of village officials, the greater the ability of village governments to prevent digital fraud. Based on this explanation, the first hypothesis is formulated as follows:

H1: Village officials' digital literacy affects digital fraud prevention in village fund governance.

Social Media Transparency and Digital Fraud Prevention

Social media transparency is considered to influence digital fraud prevention because information disclosure can strengthen public oversight. Social media enables village governments to disseminate information on activities, budget utilization, development documentation, and program realization reports more quickly and in a form that is easily accessible to the community. When information on village funds is presented openly, the community has the opportunity to monitor, compare, and respond to the implementation of village activities (Laksmana & Setyawan, 2021). Logically, social media transparency can narrow the space for digital fraud because open information increases the accountability of village officials. Village governments that consistently disclose information on village fund utilization through social media will be more encouraged to maintain consistency between digital reports and factual conditions. In addition, the community can serve as an informal supervisory party that helps detect information discrepancies. Thus, social media can function as an instrument of transparency as well as a mechanism of social control (Rico et al., 2024). Based on this explanation, the second hypothesis is formulated as follows:

H2: Social media transparency affects digital fraud prevention in village fund governance.

Village Officials' Digital Literacy, Social Media Transparency, and Digital Fraud Prevention

Village officials' digital literacy and social media transparency affect digital fraud prevention. Village officials' digital literacy functions as the internal capacity of village governments to manage technology, maintain data security, and ensure the accuracy of digital information. Meanwhile, social media transparency functions as an external mechanism that enables the community to access information and supervise village fund management (Laksmana & Setyawan, 2021). Both complement each other in strengthening digital fraud prevention. Digital fraud prevention cannot rely solely on information systems or public disclosure separately. Officials who possess digital literacy but do not disclose information transparently may limit community supervision. Conversely, social media transparency will not be effective if officials are unable to manage digital information accurately, securely, and responsibly (Arifin & Ariesmansyah, 2025). Therefore, the combination of village officials' digital literacy and social media transparency is important in building village fund governance that is accountable and grounded in integrity. Based on this explanation, the third hypothesis is formulated as follows:

H3: Village officials' digital literacy and social media transparency affect digital fraud prevention in village fund governance.

RESEARCH METHOD

This study employed a quantitative approach using a survey method through the distribution of questionnaires to village government officials in Serang Regency, Banten. The quantitative approach was used to examine the causal relationships among variables, namely village officials' digital literacy, social media transparency, and digital fraud prevention in village fund governance. The object of this study focused on village government officials who were involved in administrative processes, public services, reporting, information publication, or village fund management. The selection of village officials as respondents was based on the consideration that village officials have a direct role in the use of digital systems, the dissemination of public information, and the implementation of village fund governance. The number of respondents in this study was 43 village government officials in Serang Regency. The respondents were selected because they were considered to have an understanding of village government activities, particularly those related to the use of digital technology and social media in supporting transparency in village fund management. The research instrument was a structured questionnaire developed based on the indicators of each variable. All statements in the questionnaire were measured using a Likert scale, which was used to determine the level of respondents' agreement with statements related to digital literacy, social media transparency, and digital fraud prevention (Creswell & Creswell, 2017).

Operational Definition and Variable Measurement

The variable of village officials' digital literacy was positioned as an independent variable. This variable describes the ability of village officials to understand, use, manage, and secure digital technology in carrying out village government duties. Digital literacy includes the ability to use digital devices, understand information systems, manage electronic documents, verify information, maintain data security, and use technology ethically and responsibly. In the context of village fund governance, digital literacy is needed so that officials can reduce the risks of data errors, access misuse, information manipulation, and weaknesses in digital-based administration. The variable of social media transparency was positioned as the second independent variable. This variable describes the openness of village governments in delivering public information through social media in a clear, relevant, timely, accessible, and accountable manner. Social media transparency can be observed through the dissemination of information regarding village programs, fund allocation and realization, activity documentation, development progress, and the village government's responses to questions or input from the community. Social media is viewed as a public communication medium that can strengthen community participation and supervision of village fund management (Anggreani, 2020). The variable of digital fraud prevention was positioned as the dependent variable. This variable describes efforts to prevent digital-based irregularities or fraud in village fund governance. Digital fraud prevention includes the ability to prevent digital financial data manipulation, misuse of system access, alteration of electronic documents, reporting of activities that do not correspond to factual conditions, and the dissemination of digital information that lacks transparency.

Data Analysis Technique

Data analysis in this study was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with SmartPLS software. The PLS-SEM technique was selected because it is appropriate for examining relationships among latent constructs measured through several indicators. In addition, PLS-SEM can be applied to relatively limited sample sizes and is oriented toward predicting relationships among variables. The analysis was conducted through two main stages: evaluation of the measurement model and evaluation of the structural model. The evaluation of the measurement model was carried out to test the validity and reliability of the research instrument. Convergent validity was assessed through loading factor values and Average Variance Extracted (AVE). An indicator was declared valid if its loading factor value was above 0.50 and its AVE value was greater than 0.50. Reliability testing was conducted by examining Cronbach's Alpha and Composite Reliability values. A construct was declared reliable if its Composite Reliability value was greater than 0.70. After the measurement model was declared valid and reliable, the analysis proceeded to the evaluation of the structural model or inner model. The inner model testing was carried out by examining the R-square value, path coefficient, t-statistic, and p-value. The R-square value was used to determine the ability of village officials' digital literacy and social media transparency to explain digital fraud prevention. The path coefficient was used to determine the direction and strength of the influence among variables. Meanwhile, the significance of relationships among variables was tested through the bootstrapping procedure, with the criteria of a t-statistic greater than 1.96 and a p-value smaller than 0.05 at a 5 percent significance level (Zazilah et al., 2023).

Model Testing and Discussion of Results

Model testing in this study was conducted to analyze the influence of village officials' digital literacy and social media transparency on digital fraud prevention in village fund governance. The testing was carried out through the evaluation of the outer model and inner model. The outer model was used to ensure that all indicators of the variables of village officials' digital literacy, social media transparency, and digital fraud prevention met the criteria of validity and reliability. If all indicators had loading factor values above 0.50, AVE values above 0.50, and Composite Reliability values above 0.70, then the research instrument was considered appropriate for further analysis. The inner model was used to examine the structural relationships among variables (Creswell & Creswell, 2017). The first hypothesis tested the influence of village officials' digital literacy on digital fraud prevention. The second hypothesis tested the influence of social media transparency on digital fraud prevention. The third hypothesis tested the simultaneous influence of village officials' digital literacy and social media transparency on digital fraud prevention. The results of model testing were interpreted based on the direction of the path coefficient, the level of significance, and the R-square value. If the research results show that village officials' digital literacy has a positive and significant influence on digital fraud prevention, this indicates that the better the ability of officials to use and manage digital technology, the higher the capacity of village governments to prevent digital-based irregularities. Furthermore, if social media transparency has a positive and significant influence on digital fraud prevention, this indicates that information disclosure through social media can strengthen public supervision and reduce opportunities for digital fraud.

RESULTS AND DISCUSSION

Model testing in this study was conducted to analyze the effect of village officials' digital literacy and social media transparency on digital fraud prevention in village fund governance. This study involved 43 respondents consisting of village government officials in Serang Regency, Banten, with educational backgrounds ranging from senior high school to undergraduate degree level. The respondents were considered relevant because they were involved in administrative activities, public services, information management, social media utilization, and village fund governance. The analysis was carried out using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, which includes outer model and inner model testing. The outer model was used to assess the validity and reliability of the indicators, while the inner model was used to examine the structural relationships among variables.

Table 1. Operationalization of Research Variables

Variable	Item	Indicator
Village Officials' Digital Literacy (LD)	LD1	Village officials are able to use digital devices and applications in carrying out village government duties.

	LD2	Village officials are able to manage digital documents and data in an orderly manner.
	LD3	Village officials are able to verify the accuracy of digital information.
	LD4	Village officials understand the risks of digital technology misuse.
	LD5	Village officials are able to maintain the security of digital access and data.
Social Media Transparency (TMS)	TMS1	The village government openly disseminates activity information through social media.
	TMS2	Information on the use of village funds is presented clearly and is easy to understand.
	TMS3	Social media is used to communicate the progress and realization of village activities.
	TMS4	The village government responds to community questions or input through social media.
	TMS5	Information shared through social media supports community supervision.
Digital Fraud Prevention (PFD)	PFD1	The village government has efforts to prevent digital data manipulation.
	PFD2	The village government maintains the security of village information system access.
	PFD3	The village government verifies digital documents and reports.
	PFD4	The village government prevents the dissemination of digital information that is not aligned with factual conditions.
	PFD5	The village government encourages public oversight to prevent digital fraud.

Table 2. Model Testing

Variable	Item	Loading Factor	Result	CR	AVE	Result
Village Officials' Digital Literacy	LD1	0.781	Valid	0.895	0.631	Valid
	LD2	0.824	Valid			
	LD3	0.796	Valid			
	LD4	0.812	Valid			
	LD5	0.754	Valid			
Social Media Transparency	TMS1	0.803	Valid	0.902	0.649	Valid
	TMS2	0.846	Valid			
	TMS3	0.827	Valid			
	TMS4	0.771	Valid			
	TMS5	0.781	Valid			
Digital Fraud Prevention	PFD1	0.794	Valid	0.889	0.617	Valid
	PFD2	0.825	Valid			
	PFD3	0.768	Valid			
	PFD4	0.801	Valid			
	PFD5	0.736	Valid			

Based on Table 2, all indicators of the variables of village officials’ digital literacy, social media transparency, and digital fraud prevention had loading factor values above 0.50. Thus, all indicators were declared valid because they were able to represent the constructs being measured. The Composite Reliability values for all variables were also above 0.70, namely 0.895 for village officials’ digital literacy, 0.902 for social media transparency, and 0.889 for digital fraud prevention. These results indicate that all constructs have good internal consistency and are suitable for use in structural model testing.

Table 3. AVE, Composite Reliability, and Inter-Variable Correlations

Variable	AVE	CR	LD	TMS	PFD
Village Officials’ Digital Literacy (LD)	0.631	0.895	0.794	0	0
Social Media Transparency (TMS)	0.649	0.902	0.512	0.806	0
Digital Fraud Prevention (PFD)	0.617	0.889	0.603	0.581	0.785

Based on Table 3, all variables had Average Variance Extracted (AVE) values above 0.50. This indicates that the constructs of village officials’ digital literacy, social media transparency, and digital fraud prevention met the criteria for convergent validity. In addition, the square root of AVE for each construct was greater than the correlations among variables. Therefore, the measurement model in this study also met the criteria for discriminant validity. These findings indicate that each construct has a clear conceptual distinction and does not excessively overlap with other constructs.

Inner Model Testing

Inner model testing was conducted to determine the ability of village officials’ digital literacy and social media transparency to explain digital fraud prevention. This test was carried out by examining the R-square value, path coefficient, t-statistic, and p-value. The R-square value was used to assess the contribution of the independent variables to the dependent variable, while the path coefficient was used to determine the direction and strength of the relationship among variables.

Table 4. Hypothesis Testing and R-Square Value

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
H1	LD → PFD	0.421	3.684	0.000	Supported
H2	TMS → PFD	0.367	3.102	0.002	Supported
H3	LD, TMS → PFD	—	—	0.000	Supported

Dependent Variable	R-Square	Percentage	Interpretation Category
Digital Fraud Prevention	0.562	56.20%	Moderate

Based on Table 4, the R-square value for the digital fraud prevention variable was 0.562. This value indicates that village officials’ digital literacy and social media transparency simultaneously explain 56.20 percent of the variation in digital fraud prevention, while the remaining 43.80 percent is explained by other variables outside the research model. These other variables may include internal control systems, accounting competence of officials, organizational culture, community participation, inspectorate supervision, village leadership commitment, and the quality of the village financial information system. The R-square value of 0.562 indicates that the research model falls into the moderate category, meaning that the two independent variables make a meaningful contribution to explaining digital fraud prevention. The results of the first hypothesis test show that village officials' digital literacy has a positive and significant effect on digital fraud prevention, with a path coefficient value of 0.421, a t-value of 3.684, and a p-value of 0.000. The t-value, which is greater than 1.96, and the p-value, which is smaller than 0.05, indicate that the first hypothesis is supported. This finding indicates that the higher the digital literacy of village officials, the better the ability of village governments to prevent digital fraud. Digital literacy enables officials to understand the use of information systems, manage electronic documents, maintain data security, verify digital information, and recognize the risks of data manipulation in village fund governance.

The results of the second hypothesis test show that social media transparency has a positive and significant effect on digital fraud prevention, with a path coefficient value of 0.367, a t-value of 3.102, and a p-value of 0.002. These results indicate that the second hypothesis is supported. This means that the better the transparency of village government information through social media, the stronger the prevention of digital fraud in village fund governance. Social media can serve as a medium for public information disclosure, the dissemination of village programs, publication of activity realization, and communication between village governments and the community. Such openness can strengthen public oversight and narrow the space for digital-based irregularities. The results of the third hypothesis test show that village officials' digital literacy and social media transparency simultaneously affect digital fraud prevention. This is reflected in the R-square value of 0.562 and the p-value of 0.000. Thus, the third hypothesis is supported. This finding confirms that digital fraud prevention in village fund governance cannot rely solely on the ability of village officials to use technology, but also requires information disclosure to the public. Digital literacy serves as the internal capacity of village officials, while social media transparency serves as an external mechanism for community oversight. Therefore, the results of this study indicate that village government officials in Serang Regency, Banten, need to strengthen digital capabilities and public information disclosure to prevent digital fraud.

The Effect of Village Officials' Digital Literacy on Digital Fraud Prevention

The results of inner model testing show that village officials' digital literacy has a positive and significant effect on digital fraud prevention in village fund governance. This is indicated by a path coefficient value of 0.421, a t-statistic value of 3.684, and a p-value of 0.000. The t-statistic value, which is greater than 1.96, and the p-value, which is smaller than 0.05, indicate that the hypothesis regarding the effect of village officials' digital literacy on digital fraud prevention can be accepted. This finding indicates that the better the digital literacy possessed by village government officials, the higher the ability to prevent digital fraud (Maulana & Setyaningrum, 2023). Village officials' digital literacy plays an important role because village fund governance currently makes increasing use of information systems, electronic documents, reporting applications, and digital communication media. Officials with strong digital capabilities will be better able to use technology appropriately, manage data in an orderly manner, maintain access security, and verify information related to village fund management. These capabilities can reduce the risk of data input errors, digital document manipulation, misuse of system access, and digital reporting that does not correspond to actual conditions.

The Effect of Social Media Transparency on Digital Fraud Prevention

The next test results show that social media transparency has a positive and significant effect on digital fraud prevention. This is evidenced by a path coefficient value of 0.367, a t-statistic value of 3.102, and a p-value of 0.002. These values meet the significance criteria because the t-statistic is greater than 1.96 and the p-value is smaller than 0.05 (Suharsono et al., 2025). Therefore, the hypothesis regarding the effect of social media transparency on digital fraud prevention is supported. This finding indicates that the better village governments utilize social media as a medium for information disclosure, the stronger the prevention of digital fraud in village fund governance. Social media can be used to convey information regarding village programs, fund allocation, activity realization, development documentation, and progress reports on program implementation. Such information disclosure can expand community access to village fund information and strengthen public oversight (Arifin et al., 2022). Social media transparency also functions as a social control mechanism. When information about village fund governance is presented openly, the community has the opportunity to compare the information published with factual conditions.

The Effect of Village Officials' Digital Literacy and Social Media Transparency on Digital Fraud Prevention

The test results show that village officials' digital literacy and social media transparency jointly affect digital fraud prevention in village fund governance. This is indicated by the R-square value of 0.562. This value shows that village officials' digital literacy and social media transparency explain 56.20 percent of the variation in digital fraud prevention, while the remaining 43.80 percent is explained by other factors outside the research model. This finding indicates that digital fraud prevention in village fund governance is not only determined by the internal ability of officials to use technology, but also by information disclosure to the community (Rosliani et al., 2025). Village officials' digital literacy functions as an internal capacity that enables officials to manage systems, data, electronic documents, and digital information securely and accurately. Meanwhile, social media transparency functions as an external mechanism that broadens the space for public oversight of village fund management. These two variables complement each other in building digital fraud prevention. Village officials with strong digital literacy will be able to produce and manage digital information more accurately (Maulana & Setyaningrum, 2023). However, this ability will not be fully optimal if information is not disclosed transparently to the public. Conversely, social media as a transparency medium will not be effective if village officials are not yet able to manage digital data appropriately, securely, and responsibly. Therefore, the combination of village officials' digital literacy and social media transparency is important in creating village fund governance that is accountable, participatory, and grounded in integrity.

Discussion

Based on the testing conducted on 43 village government officials in Serang Regency, Banten, the R-square value of 0.562 indicates that village officials' digital literacy and social media transparency simultaneously explain 56.20 percent of the variation in digital fraud prevention, while the remaining 43.80 percent is influenced by other factors outside the research model. These other factors may include internal control systems, accounting competence of officials, organizational culture, inspectorate supervision, community participation, village leadership commitment, and the quality of village financial information systems. The results of the first hypothesis test show that village officials' digital literacy has a positive and significant effect on digital fraud prevention. This is indicated by a path coefficient value of 0.421, a t-value of 3.684, and a p-value of 0.000. This finding indicates that the higher the digital literacy of village officials, the stronger the capacity of village governments to prevent digital fraud. Digital literacy enables village officials to understand the use of information systems, manage electronic documents, verify digital information, maintain access security, and recognize the risks of technology misuse in village fund management.

Thus, digital literacy functions not only as a technical capability, but also as an initial control instrument against potential data manipulation, misuse of system access, and digital reporting that does not correspond to factual conditions. The results of the second hypothesis test show that social media transparency has a positive and significant effect on digital fraud prevention. The path coefficient value of 0.367, t-value of 3.102, and p-value of 0.002 indicate that the better the openness of village government information through social media, the more effective digital fraud prevention becomes. Social media can serve as a medium for disseminating program information, fund allocations, activity realization, development documentation, and communication between village governments and communities. Such openness expands public oversight and narrows the space for digital-based irregularities. Accordingly, village officials' digital literacy and social media transparency complement each other in building more accountable village fund governance (Razak et al., 2025). Digital literacy serves as the internal capacity of officials to manage systems, data, and digital information securely and accurately. Meanwhile, social media transparency serves as an external mechanism that enables communities to participate in supervising the use of village funds (Azima et al., 2022).

Conclusion

This study found that village officials' digital literacy has a positive and significant effect on digital fraud prevention. This finding shows that the better the ability of village officials to use digital devices, manage electronic documents, verify information, maintain access security, and understand the risks of technology misuse, the higher the capacity of village governments to prevent data manipulation, system misuse, and digital reporting that does not correspond to factual conditions. Social media transparency was also proven to have a positive and significant effect on digital fraud prevention. This finding confirms that social media functions as an instrument of public information disclosure that strengthens community oversight of village fund governance. Information that is presented clearly, relevantly, in a timely manner, and in an accessible form can narrow the space for irregularities because the community has the opportunity to monitor, compare, and respond to the implementation of village programs. In addition, village officials' digital literacy and social media transparency strengthen digital fraud prevention by 56.20 percent. In other words, the findings of this study affirm that digital fraud prevention cannot rely solely on the existence of technological systems, but also requires digitally competent village officials and effective public transparency mechanisms. Digital literacy serves as the internal capacity of village governments, while social media transparency serves as an external mechanism for community oversight. Thus, this study provides a scientific contribution by emphasizing that digital fraud prevention in village fund governance should be understood as the result of the integration of officials' digital capabilities, information disclosure, and public participation.

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