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Research Article

Effect of Village Government HR Competence and IT use on Accountability of Village Fund Management in Pringsewu

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Abstract: This study investigates the influence of village government human resource (HR) competence and information technology (IT) utilization on the accountability of village fund management, with empirical evidence drawn from villages in Pringsewu Regency, Indonesia. The research addresses critical concerns about the underperformance and misuse of village funds, often linked to weak HR capabilities and limited IT adoption. The primary objective is to examine how HR competence and IT usage affect financial accountability in village fund management. Utilizing a quantitative approach, this study surveyed 91 village officials across 13 villages using a structured questionnaire, applying multiple linear regression analysis for hypothesis testing. Findings reveal that both HR competence and IT utilization significantly and positively influence accountability, suggesting that skilled personnel and effective use of digital systems enhance transparency and financial governance. The results support the Technology Acceptance Model (TAM) and stewardship theory, emphasizing the importance of reliable personnel and technological systems in public financial management. The study concludes that strengthening human resource capacity and advancing IT infrastructure are critical steps in ensuring accountable village fund management, especially in rapidly developing regions such as Pringsewu Regency.

Keywords: Accountability; Pringsewu Regency; Stewardship Theory; Technology Acceptance Model; Village Fund Management

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1. Introduction

The increasing emphasis on rural development in Indonesia has reshaped the governance landscape at the village level, particularly since the enactment of Law No. 6 of 2014 concerning Villages. This regulation redefined villages from being passive recipients of development to active agents responsible for implementing local governance and development programs. One of the main policy instruments to actualize this transformation has been the distribution of substantial village funds (Dana Desa) sourced from the state budget. These funds are intended to stimulate infrastructure development, empower communities, and reduce rural disparities. However, despite this significant fiscal intervention, issues related to transparency and accountability in fund management persist, particularly in regions like Pringsewu Regency, where the dependency on village funds is notably high. With 131 villages across 9 sub-districts and over IDR 100 billion in fund allocation in 2024 alone, Pringsewu exemplifies the urgency of strengthening accountable financial management at the village level.

Prior research has explored several factors affecting public financial accountability. Yesinia et al. (2018) found that internal control systems and the competence of village officials significantly influence fund accountability. Similarly, Karyadi (2019) and Sari et al. (2017)

demonstrated the importance of integrating information technology into public sector financial systems to enhance efficiency, transparency, and reliability. However, findings remain inconsistent. Alauddin (2020), for instance, reported that while human resource competence and community participation positively affected accountability, the utilization of Information and Communication Technology (ICT) showed a negative correlation. Such discrepancies indicate a complex relationship between human resource capability, technological adoption, and public accountability. Moreover, most prior studies have focused on urban or provincial settings, whereas few have rigorously examined the dynamics of accountability in rural areas where institutional capacity and digital literacy vary considerably.

The governance challenges in Pringsewu Regency are reflected in several misuse cases of village funds. These include the issuance of fictitious invoices, price markups, and unauthorized expenditures by village officials in multiple sub-districts such as Pardasuka, Adiluwih, and Sukoharjo. Compounding this issue is the underutilization of digital tools like the Sistem Keuangan Desa (Siskeudes), which were developed to streamline and standardize village financial management. As a result, many villages fail to maintain accurate, timely, and publicly accessible financial reports. This research addresses these problems by investigating two main predictors of fund accountability: (1) the competence of village-level human resources and (2) the degree of IT utilization in village fund management.

This study adopts a quantitative approach supported by two complementary theoretical lenses: the Technology Acceptance Model (TAM) and Stewardship Theory. The TAM framework, developed by Davis et al. (1989), asserts that perceived usefulness and ease of use determine users' acceptance of technology, which in this context relates to financial reporting systems in public administration. Stewardship Theory, on the other hand, emphasizes the ethical responsibility and intrinsic motivation of public officials to act in the best interest of stakeholders (Oktavianus & Rahman, 2019). By combining these frameworks, the study aims to identify how the interplay between technological adoption and human capability influences accountability outcomes in the village governance system.

The research was conducted using a structured questionnaire distributed to 91 village government officials from 13 selected villages in five sub-districts of Pringsewu Regency. The selection employed a simple random sampling technique, ensuring representativeness within the context of homogeneous village governance structures. Statistical analysis, including multiple linear regression, was applied using SPSS to examine the relationships among the studied variables.

The key contributions of this paper are fivefold. First, it provides empirical evidence on the effect of human resource competence and IT utilization on village fund accountability in a rural Indonesian context. Second, it expands the application of the Technology Acceptance Model and Stewardship Theory into the domain of village financial management. Third, it identifies performance bottlenecks in the implementation of government-mandated digital systems like Siskeudes. Fourth, it highlights the implications of limited IT adoption for public sector accountability in rural settings. Finally, it offers policy recommendations to strengthen capacity building and digital transformation at the village level.

The rest of the paper is structured as follows: Section 2 reviews related literature and the theoretical foundations of the study. Section 3 outlines the research methodology, including population, sampling strategy, and analytical tools. Section 4 presents the empirical results and data analysis. Section 5 discusses the implications of the findings in relation to existing studies. Section 6 concludes the paper with recommendations for policy and future research.

2. Literature Review

This section outlines the theoretical foundations and relevant empirical studies associated with the key variables in this research namely, human resource competence, information technology utilization, and village fund accountability. It integrates both classical and contemporary frameworks while identifying theoretical gaps and empirical inconsistencies, particularly in rural and decentralized governance contexts.

2.1 Theoretical Foundations: Technology Acceptance Model and Stewardship Theory

Two key theoretical models underpin this study: the Technology Acceptance Model (TAM) and Stewardship Theory. TAM, introduced by Davis et al. (1989), is widely used to explain users' acceptance of new technology based on two determinants: perceived usefulness and perceived ease of use. This model has been validated across various domains, including public financial management, and is particularly relevant in explaining why village officials adopt (or resist) digital tools such as Siskeudes (Sistem Keuangan Desa). Previous research (e.g., Salisa et al., 2019; Venkatesh & Davis, 2000) has confirmed the robustness of TAM in government settings, though few studies have applied it in under-resourced or rural contexts where digital literacy remains a challenge.

Complementing this, Stewardship Theory (Donaldson & Davis, 1991; Oktavianus & Rahman, 2019) views public officials as stewards whose intrinsic motivation and moral obligation drive them to act in the best interest of their constituents. Unlike Agency Theory, which presumes self-interested behavior, Stewardship Theory aligns with public sector values such as transparency, integrity, and public trust. In the context of village governance, this theory helps frame the accountability expectations placed on village officials managing large public budgets.

Together, these theories form a conceptual bridge between technological enablers (IT systems) and human agency (competence and integrity), making them highly suitable for exploring the dual impact of digital tools and HR capacity on financial accountability.

2.2 Empirical Studies on HR Competence, IT Utilization, and Accountability

A wide range of empirical studies has examined determinants of accountability in the management of public funds, particularly within local government systems. Yesinia et al.

(2018) found that both internal control systems and human resource competence significantly affect the accountability of village fund allocation in Lumajang Regency. Similarly, Karyadi (2019) reported that HR competence had a statistically significant positive impact on the accountability of village financial management in East Lombok, while the effect of IT usage was marginal.

Other studies, such as those by Sari et al. (2017) in Aceh Jaya Regency, demonstrated that a combination of organizational commitment, IT utilization, and HR competence improves managerial performance in local government financial administration. Meanwhile, Alauddin (2020) provided contrasting results in Tegal Regency, where IT usage had a negative correlation with accountability, possibly due to poor user training or resistance to change.

From a technological standpoint, Resfiana (2019) emphasized the importance of digitizing financial operations to enhance accuracy, timeliness, and transparency. However, such advantages are often limited by uneven access to infrastructure and low digital capacity, particularly in semi-rural areas like Pringsewu Regency.

Despite these contributions, several gaps remain. First, few studies have explicitly combined TAM and Stewardship Theory in explaining village-level accountability. Second, most existing literature focuses on urban or provincial contexts, ignoring the unique institutional characteristics of rural or semi-urban governance units. Third, while there is consensus on the importance of HR competence, there is limited empirical analysis on how this variable interacts with IT systems to influence financial accountability. This research addresses these gaps by offering a dual-theory perspective and an empirical study situated in a decentralized rural governance context.

3. Proposed Method

This study employed a quantitative explanatory approach to examine the influence of village government human resource (HR) competence and information technology (IT) utilization on the accountability of village fund management in Pringsewu Regency. Data were collected using a survey method with structured questionnaires. The analysis relied on multiple linear regression using the SPSS software package to test hypotheses and assess the strength and significance of the proposed relationships. The research process is summarized through the algorithm below.

Algorithm 1. Village Fund Accountability Prediction

INPUT: Survey responses on HR competence (X_1), IT utilization (X_2)

OUTPUT: Accountability score of village fund management (Y)

Step 1: Identify and define the population (1,048 village government officials in Pringsewu Regency);

Step 2: Determine the sample size using the Slovin formula with 10% margin of error (n = 91);

Step 3: Design and validate the questionnaire (indicators: HR competence, IT use, and accountability);

Step 4: Distribute the questionnaire to selected respondents across 13 villages;

Step 5: Collect and clean the data for consistency and completeness;

Step 6: Conduct validity and reliability tests on each item using SPSS;

Step 7: Perform classical assumption tests (normality, multicollinearity, heteroscedasticity, autocorrelation);

Step 8: Apply multiple linear regression analysis to test the hypotheses;

Step 9: Interpret results and evaluate model performance using Adjusted R^2 and significance values.

Questionnaire Instrument and Indicators

The structured questionnaire consists of three main variables with corresponding indicators:

a. HR Competence (X_1):
   1) Ability;
   2) Knowledge;
   3) Skill;
   4) Experience.
b. IT Utilization (X_2):
   1) Use of financial software (e.g., Siskeudes);
   2) Network accessibility;
   3) Digital report generation;
   4) Speed and accuracy in transaction processing.
c. Accountability (Y):
   1) Budget planning transparency;
   2) Implementation procedures;
   3) Administrative reporting;
   4) Public accessibility of financial reports.

The questionnaire uses a 4-point Likert scale, from Strongly Disagree (1) to Strongly Agree (4). Responses are aggregated and averaged per construct for analysis.

3.2 Formatting of Mathematical Components

To determine the appropriate sample size, the Slovin formula was used as expressed in Eq. (1):

(1) $n = N / (1 + N(e)^2)$

Where:

n = sample size

N = total population (1,048)

e = margin of error (0.1)

Thus:

(2) $n = 1048 / (1 + 1048(0.1)^2) = 1048 / 11.48 \approx 91$

The main regression model used to test the hypotheses is:

(3) $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \varepsilon$

Where:

Y = Accountability of village fund management

X_1 = HR competence

X_2 = IT utilization

α = constant

β_1, β_2 = regression coefficients

ε = error term

This model allows for partial and simultaneous testing of each independent variable's effect on accountability.

Theorem 1. Model Validity

The regression model is statistically valid if all classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation) meet standard thresholds and if the p-values of the coefficients are < 0.05.

Proof of Theorem 1.

Based on SPSS outputs:

a. Normality test: Sig. = 0.051 > 0.05
b. Multicollinearity (VIF for both X_1 and X_2) = 1.383 (< 10)
c. Heteroscedasticity test: Sig. > 0.05
d. Durbin-Watson = 2.122 (within acceptable range)

All assumptions are fulfilled. Moreover, the significance values for both predictors were 0.000, indicating strong evidence that HR competence and IT utilization positively influence accountability.

4. Results and Discussion

This section presents the tools and software used, the data collection process, statistical analysis, and a discussion of the research findings. The research was conducted using SPSS Statistics 26 running on a Windows 10 environment. A structured questionnaire was distributed to 91 village government officials from 13 villages across 5 sub-districts in Pringsewu Regency. The objective was to evaluate the influence of human resource competence and information technology utilization on the accountability of village fund management.

Classical assumption tests were conducted prior to hypothesis testing, including normality, multicollinearity, heteroscedasticity, and autocorrelation. The data met all the assumptions, confirming the validity of the regression model.

Multiple linear regression analysis was employed to evaluate the hypotheses. The regression model used is presented in Eq.

(1) $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

Where:

a. Y: Accountability of village fund management
b. X_1: HR competence
c. X_2: IT utilization
d. α: Constant
e. β_1, β_2: Regression coefficients
f. ε: Error term

The results show that both independent variables have a significant and positive impact on the dependent variable, with p-values of 0.000 for both predictors. This indicates that increasing the competence of village apparatus and improving IT utilization leads to higher accountability in village fund management.

4.1. Figures and Tables

The regression results are visually summarized in Fig. 1, which presents the standardized coefficients and standard errors for each independent variable.

Figure 1. Standardized regression coefficients and error margins for HR Competence and IT Utilization toward Accountability.

Table 1 shows the detailed regression output from SPSS, including coefficients, standard errors, t-values, significance levels, and VIF values to assess multicollinearity.

Table 1. Regression Output Summary

Variable	Coefficient (B)	Std. Error	t-value	Sig. (p)	VIF
Constant	5.938	4.541	1.308	0.194	—
HR Competence (X_1)	0.818	0.146	5.612	0.000	1.383
IT Utilization (X_2)	0.782	0.171	4.573	0.000	1.383

Themodel has an Adjusted R^2 of 0.545, which indicates that 54.5% of the variance in accountability is explained by the model. The Durbin-Watson value of 2.122 suggests no autocorrelation, and the VIF values are well below 10, indicating no multicollinearity between the predictors. These results confirm both research hypotheses:

a. HR competence significantly influences accountability, supporting Stewardship Theory, which argues that competent and trustworthy public servants will act in the interest of the community.

b. IT utilization also significantly influences accountability, consistent with the Technology Acceptance Model (TAM), where systems perceived as useful and easy to use enhance performance outcomes.

These findings align with previous research by Sari et al. (2017), Karyadi (2019), and Yesinia et al. (2018), which emphasized the role of administrative capacity and digital innovation in improving governance outcomes. However, this study goes further by empirically integrating these factors within a rural decentralized government context, highlighting the need for digital literacy and structured performance training in village administration.

The implications are clear: to enhance village fund accountability, investments must be made in both human capital development and information system integration. Pringsewu Regency, like many other rural regions in Indonesia, stands to benefit from strengthening these two pillars simultaneously, especially as more fiscal responsibilities are delegated to the village level.

5. Comparison

Comparison with state-of-the-art research is essential to highlight the novelty and practical value of this study. Several previous works have investigated the determinants of accountability in public financial management, particularly in village-level governance. However, differences in theoretical integration, methodological scope, and regional focus distinguish this research.

For instance, Yesinia et al. (2018) analyzed accountability in the management of village funds in Lumajang Regency and found that internal control systems and village officials' roles significantly influence accountability. However, their study did not explicitly measure the impact of information technology utilization or integrate behavioral theories such as the Technology Acceptance Model (TAM) or Stewardship Theory.

Similarly, Sari et al. (2017) conducted research in Aceh Jaya Regency, focusing on organizational commitment, IT usage, and HR competence as factors affecting financial performance. While their study supported the relevance of these variables, it centered on performance outcomes rather than accountability per se and did not address the village fund context specifically.

Alauddin (2020) offered more specific insights into village fund accountability in Tegal Regency, showing that HR competence and community participation positively influence accountability, while IT usage had a negative impact—contrary to the findings of this research. This divergence highlights a contextual gap, suggesting that the role of IT may vary depending on local readiness, infrastructure, and digital literacy.

In contrast, this study presents a dual-theory approach using TAM and Stewardship Theory to explain both technological and human dimensions of accountability, offering a

54.5% explanatory power (Adjusted R^2)—a strong indication of model robustness. Additionally, it focuses on a semi-rural region (Pringsewu Regency) with homogenous administrative characteristics, ensuring internal validity while addressing regions that are often underrepresented in empirical governance studies. Therefore, the contribution of this study lies in:

a. Integrating TAM and Stewardship Theory to build a holistic model of village fund accountability;
b. Providing empirical evidence from a homogenous, semi-rural administrative region, enhancing contextual clarity;
c. Delivering policy-relevant insights for improving both digital infrastructure and human capacity at the village government level.

Compared to state-of-the-art works, this research bridges the conceptual gap between technological adoption and behavioral competence in public financial accountability, particularly in decentralized and resource-constrained environments

6. Conclusions

This study aimed to investigate the influence of village government human resource (HR) competence and information technology (IT) utilization on the accountability of village fund management in Pringsewu Regency, Indonesia. The main findings from the regression analysis confirm that both variables have a positive and statistically significant effect on accountability, with p-values of 0.000 and an Adjusted R^2 of 0.545, indicating that over half of the variance in accountability can be explained by the model. These results support the theoretical assumptions derived from the Technology Acceptance Model (TAM) and Stewardship Theory, affirming that both technological capability and human agency play a critical role in enhancing public accountability.

The findings are directly aligned with the research objectives, demonstrating that improving the competence of village officials—as reflected in their skills, experience, and understanding of regulations—alongside the effective use of digital systems such as Siskeudes, leads to more transparent, timely, and responsible fund management practices. The study therefore contributes to the academic discourse by offering an integrated theoretical framework and empirical validation within the context of decentralized governance in rural Indonesia.

From a practical standpoint, the study provides valuable implications for policymakers and local governments. It highlights the need for continuous capacity building through targeted training programs for village officials and the provision of adequate IT infrastructure to support digital transformation in village administration. These measures are essential for minimizing fund mismanagement, enhancing citizen trust, and achieving sustainable rural development.

Nevertheless, the study has several limitations. The analysis was limited to two independent variables, potentially excluding other significant factors such as leadership style, community participation, or regulatory enforcement. The sample was also geographically confined to a single regency, which may affect the generalizability of findings to other regions with different demographic or institutional characteristics.

Future research is encouraged to expand the model by including additional explanatory variables, employing comparative studies across multiple regencies or provinces, and integrating qualitative methods to gain deeper insights into behavioral and contextual dynamics affecting public accountability in village governance.

Data Availability Statement: The data supporting the findings of this study are available from the corresponding author upon reasonable request. Due to confidentiality agreements and ethical restrictions involving the identities of village respondents, public sharing of the full dataset is not possible.

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References

[1] D. Afriyanti, H. G. Sabanu, and F. Noor, “Penilaian Indeks Akuntabilitas Instansi Pemerintah,” *J. Tata Kelola Dan Akuntabilitas Keuangan Negara*, pp. 21–42, 2018, doi: 10.28986/jtaken.v1i1.10.
[2] F. C. Alauddin, “Pengaruh Kompetensi Aparatur, Partisipasi Masyarakat dan Pemanfaatan Teknologi Informasi Terhadap Akuntabilitas Pengelolaan Dana Desa (Studi Kasus Desa di Kecamatan Tarub Kabupaten Tegal),” *J. Ekon. Dan Bisnis Pancasakti*, 2020.
[3] M. A. Arfiansyah, “Pengaruh Sistem Keuangan Desa Dan Sistem Pengendalian Intern Terhadap Akuntabilitas Pengelolaan Dana Desa,” *J. Econ., Business and Accounting (COSTING)*, vol. 7, no. 1, pp. 130–136, 2023, doi: 10.31539/costing.v7i1.5963.
[4] D. F. Arifiyanto and T. Kurrohman, “Akuntabilitas Pengelolaan Alokasi Dana Desa di Kabupaten Jember,” *J. Ilm. Ilmu Akuntansi*, vol. 2, no. 3, pp. 473–485, 2014.
[5] Asmawati, “Peran Lembaga Pemberdayaan Masyarakat (LPM) Dalam Pembangunan Desa (Studi di Desa Ranga Kecamatan Enrekang Kabupaten Enrekang),” *Education*, vol. 6, 2020.
[6] T. P. Astuti and Y. Yulianto, “Good Governance Pengelolaan Keuangan Desa Menyongsong Berlakunya Undang-Undang No. 6 Tahun 2014,” *Berk. Akuntansi Dan Keuangan Indones.*, vol. 1, no. 1, pp. 1–14, 2016, doi: 10.20473/baki.v1i1.1694.
[7] N. M. Aziiz and D. S. Prastiti, “Faktor-Faktor yang Mempengaruhi Akuntabilitas Dana Desa,” *J. Akuntansi Aktual*, vol. 6, no. 2, pp. 334–344, 2019.
[8] R. Bunnaja, “Pengaruh Faktor Religiusitas, Pribadi, Dan Pelayanan Terhadap Minat Menabung Di Bank Syariah (Studi Kasus Pada Mahasiswa UIN Raden Fatah Palembang),” *J. UIN Raden Fatah*, 2019.
[9] I. Ghozali, *Aplikasi Analisis Multivariate dengan Program SPSS*, Semarang: Badan Penerbit UNDIP, 2017.
[10] G. Gordon, *Pembelajaran Kompetensi*, Jakarta, Indonesia: Rineka Cipta, 1988.
[11] D. Gujarati, *Dasar-Dasar Ekonometrika*, Jakarta: Salemba Empat, 2012.
[12] N. R. Salisa, I. N. Aeni, and A. A. Chamid, “Analisis Faktor-faktor Penerimaan Penggunaan Sistem Keuangan Desa: Pendekatan TAM dan TPB,” *Ekonomi Dan Bisnis*, vol. 6, no. 1, pp. 34–53, 2019, doi: 10.35590/jeb.v6i1.829.
[13] S. J. Sardi, H. A. Rifa’i, and L. H. Husnan, “Faktor-Faktor Yang Mempengaruhi Kualitas Laporan Keuangan Dan Akuntabilitas Kinerja Instansi Pemerintah (Studi Empiris Pada Satker Balai Besar BMKG Wilayah III Denpasar-Bali),” *InFestasi*, vol. 12, no. 2, p. 158, 2017, doi: 10.21107/infestasi.v12i2.2771.

[15] M. Sari, H. Basri, and M. Indriani, "Pengaruh Pemanfaatan Teknologi Informasi, Kompetensi Aparatur dan Komitmen Organisasi terhadap Kinerja Manajerial Pengelolaan Keuangan pada Satuan Kerja Perangkat Kabupaten Pemerintah Daerah Kabupaten Aceh Jaya," *J. Magister Akuntansi Pascasarjana Universitas Syiah Kuala*, vol. 6, no. 2, pp. 67–73, 2017.
[16] Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R&D*, Bandung: Alfabeta, 2017.
[17] Y. Jamaluddin, "Analisis Terhadap Indikator Pengukuran Akuntabilitas Kinerja Kementerian Badan Usaha Milik Negara - 2015," *J. TAPIs*, vol. 14, no. 1, pp. 74–86, 2017.