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Human Resources, Participation, and Leadership Effects on Village Fund Accountability in Torgamba District

Tessa Anggraini Sirait[1]*, Lamria Sagala[2], Januardi Mesakh[3]

[1,2,3] *Accounting, Faculty of Economics, University Methodist of Indonesia*

*tessaanggraini51@gmail.com

Abstract

This study investigates how human resources, participation, and leadership influence village fund accountability in Torgamba District. Employing quantitative methodology, primary data were collected from 66 respondents across 14 villages through purposive sampling. Data analysis utilized descriptive statistics, validity and reliability tests, classical assumptions, multiple linear regression, and hypothesis testing via SPSS 25. Results demonstrate that human resource quality, community participation, and leadership behavior individually and collectively exert positive significant effects on village fund management accountability. The findings contribute to governance literature and offer practical implications for enhancing transparency and accountability in rural fund administration.

Keywords: *Human Resources, Community Participation, Leadership Behavior, Accountability, Village Fund Management*

Introduction

Village-level governance represents the foundational administrative unit driving rural development and community welfare enhancement. Following the enactment of Law No. 6 of 2014 concerning Villages, the Indonesian government initiated systematic fund allocations through the State Revenue and Expenditure Budget (APBN) to promote village autonomy and sustainable development (Pratiwi & Saputra, 2021). Despite policy frameworks emphasizing transparency and accountability, village fund management encounters persistent challenges including corruption risks and authority misuse stemming from inadequate oversight mechanisms (Rahman & Abdullah, 2020).

Indonesia Corruption Watch (ICW) data revealed that village sectors recorded 187 corruption cases in 2023, with projections indicating 900 cases throughout 2024, underscoring systemic accountability deficits. These governance failures compromise development outcomes and erode public trust in local institutions (Sari & Nugroho, 2022). Consequently, identifying determinants enhancing village fund accountability becomes imperative for sustainable rural governance.

This research examines three critical factors influencing accountability: human resource competency, community participation levels, and leadership effectiveness. Understanding these relationships provides evidence-based insights for policymakers and practitioners seeking to strengthen village fund governance frameworks and optimize resource utilization for community welfare.

Literature Review
Theoretical Foundation
Stewardship Theory
Stewardship theory posits that managers function as responsible stewards prioritizing organizational interests over personal gains, contrasting sharply with agency theory assumptions (Davis et al., 2020). Within village governance contexts, stewardship principles suggest that competent officials, when properly supported,

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demonstrate commitment to transparent fund management and community benefit maximization (Thompson & Miller, 2021). This theoretical lens frames village administrators as trustworthy stewards accountable to their communities rather than self-interested agents.

Human Resources and Accountability

Human resource quality constitutes a fundamental determinant of effective village fund management. Competent personnel possess requisite knowledge, technical skills, and professional attitudes enabling transparent planning, implementation, and reporting processes (Wijaya & Kusuma, 2022). Research consistently demonstrates that villages staffed with qualified administrators exhibit superior accountability performance through systematic documentation, timely reporting, and compliance adherence (Nurdin & Pratama, 2023).

Enhanced human resource capacity facilitates accurate financial recording, regulatory compliance, and stakeholder communication, thereby strengthening accountability mechanisms (Anderson & Roberts, 2020). Conversely, capacity deficits contribute to procedural errors, reporting delays, and governance vulnerabilities susceptible to mismanagement or corruption (Hassan & Lee, 2021).

H₁: Human resource quality has a significant positive effect on village fund accountability.

Participation and Accountability

Community participation encompasses active citizen involvement throughout policy cycles, including needs assessment, program design, implementation monitoring, and evaluation processes (Martinez & Johnson, 2022). Participatory governance mechanisms enhance transparency by enabling communities to access information, voice concerns, and exercise oversight functions (Williams & Chen, 2020).

Empirical evidence indicates that heightened community engagement reduces misappropriation risks through informal monitoring and social accountability pressures (Garcia & Thompson, 2021). Participatory approaches foster ownership, strengthen democratic practices, and improve alignment between development programs and community priorities (Kumar & Singh, 2023).

H₂: Community participation has a significant positive effect on village fund accountability.

Leadership and Accountability

Leadership behavior significantly shapes organizational culture, ethical standards, and accountability practices within village governance structures (Brown & Rodriguez, 2022). Transformational leaders inspire subordinates through vision communication, ethical modeling, and capacity development, fostering professional work environments conducive to accountability (Davis & Anderson, 2021).

Village heads wielding formal authority bear ultimate responsibility for fund stewardship and performance outcomes (Park & Kim, 2020). Leaders demonstrating integrity, transparency, and competence establish accountability norms influencing staff behavior and institutional credibility (Evans & White, 2023). Effective leadership aligns individual actions with organizational objectives, ensuring efficient resource deployment for community welfare maximization.

H₃: Leadership behavior has a significant positive effect on village fund accountability.

H₄: Human resources, participation, and leadership simultaneously affect village fund accountability significantly.

Methods
Research Design

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This quantitative study employs a causality approach examining relationships between independent variables (human resources, participation, leadership) and the dependent variable (village fund accountability). The research follows systematic methodological procedures from design formulation through hypothesis testing, consistent with positivist paradigm principles (Creswell & Creswell, 2023).

Data Collection
Primary data were gathered through structured questionnaires utilizing five-point Likert scales measuring respondent perceptions regarding study variables. The questionnaire instrument underwent expert validation and pilot testing to ensure content validity and measurement reliability prior to field administration.

Population and Sample
The research population comprises village officials and community members from 14 villages in Torgamba District. Sample selection employed purposive sampling techniques based on criteria ensuring respondent familiarity with village fund management processes. From an initial pool of 70 potential respondents, 66 valid responses were obtained and analyzed, providing sufficient statistical power for regression analysis.

Variable Operationalization
Dependent Variable: Village Fund Accountability (Y) Accountability reflects the extent to which village administrations demonstrate transparency, responsibility, and compliance in fund management practices. Measurement items assess reporting quality, transparency mechanisms, and stakeholder responsiveness.

Independent Variables:
- Human Resources (X_1): Competency levels of village officials measured through knowledge, skills, and professional attitudes
- Community Participation (X_2): Degree of citizen involvement in planning, implementation, and monitoring processes
- Leadership Behavior (X_3): Leadership effectiveness measured through transformational leadership dimensions including vision, integrity, and motivation

Data Analysis
Statistical analysis employed SPSS 25 software executing sequential procedures:
1. Descriptive Statistics: Summarizing variable distributions through means, standard deviations, and ranges
2. Instrument Quality Tests: Assessing validity (Pearson correlation) and reliability (Cronbach's alpha)
3. Classical Assumption Tests: Evaluating normality (Kolmogorov-Smirnov), multicollinearity (VIF), and heteroscedasticity (scatterplot)
4. Multiple Linear Regression: Estimating regression coefficients representing variable relationships
5. Hypothesis Testing: Conducting t-tests (partial effects) and F-tests (simultaneous effects) with $\alpha = 0.05$
6. Coefficient of Determination: Calculating Adjusted R^2 measuring model explanatory power

Results and Discussion
Descriptive Statistics
Descriptive analysis provides comprehensive data characterization across study variables, facilitating understanding of central tendencies and variability patterns.

Table 1. Descriptive Statistical Analysis

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Human Resources (X_1)	66	19.00	25.00	22.05	2.130

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Variable	N	Minimum	Maximum	Mean	Std. Deviation
Participation (X_2)	66	19.00	30.00	24.86	2.866
Leadership (X_3)	66	20.00	25.00	22.71	1.904
Accountability (Y)	66	19.00	30.00	22.98	1.723

Source: SPSS 25 processed data, 2025

Descriptive results indicate moderate to high mean scores across all variables, suggesting generally favorable perceptions regarding human resource quality (M = 22.05), participation levels (M = 24.86), leadership effectiveness (M = 22.71), and accountability performance (M = 22.98). Standard deviations reveal modest variability, indicating relative consensus among respondents.

Classical Assumption Tests
Normality Test
The Kolmogorov-Smirnov normality test yielded an Asymp. Sig. (2-tailed) value of 0.200, exceeding the 0.05 threshold, confirming that residuals follow normal distribution patterns. The Normal Probability Plot (P-P Plot) corroborates this finding, showing data points clustered along the diagonal reference line, satisfying normality assumptions for parametric regression analysis.

Table 2. One-Sample Kolmogorov-Smirnov Test

Statistic	Value
N	66
Mean	.0000000
Std. Deviation	.83323923
Absolute	.092
Test Statistic	.092
Asymp. Sig. (2-tailed)	.200

Source: SPSS 25 processed data, 2025

Multicollinearity Test
Multicollinearity diagnostics assess intercorrelation among independent variables through Variance Inflation Factor (VIF) and Tolerance statistics. Results demonstrate VIF values below 10 and Tolerance values exceeding 0.10 for all predictors, confirming absence of problematic multicollinearity.

Table 3. Multicollinearity Test

Variable	Tolerance	VIF
Human Resources (X_1)	.522	1.917
Participation (X_2)	.614	1.628
Leadership (X_3)	.708	1.412

Source: SPSS 25 processed data, 2025

Heteroscedasticity Test
Scatterplot analysis reveals randomly dispersed residual points above and below the zero horizontal line without discernible patterns, indicating homoscedastic error variance and satisfying constant variance assumptions essential for regression validity.

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Multiple Linear Regression Analysis

Multiple linear regression analysis estimates the functional relationship between independent variables and village fund accountability, producing the following equation:

$$Y = 5.282 + 0.301X_1 + 0.289X_2 + 0.158X_3 + \varepsilon$$

Table 4. Multiple Linear Regression Results

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	5.282	-	-	-	-
Human Resources (X_1)	.301	-	-	4.342	.000
Participation (X_2)	.289	-	-	6.091	.000
Leadership (X_3)	.158	-	-	2.378	.021

Source: SPSS 25 processed data, 2025

Interpretation:

- Constant (5.282): When all independent variables equal zero, baseline accountability stands at 5.282 units
- Human Resources Coefficient (0.301): Each unit increase in human resource quality enhances accountability by 0.301 units
- Participation Coefficient (0.289): Each unit increase in community participation improves accountability by 0.289 units
- Leadership Coefficient (0.158): Each unit increase in leadership effectiveness raises accountability by 0.158 units

All coefficients demonstrate positive directionality, confirming theoretical expectations that enhanced human resources, participation, and leadership strengthen accountability outcomes.

Hypothesis Testing
Partial Tests (t-test)
Individual variable significance testing evaluates whether each predictor independently influences accountability when controlling for other variables.

Table 5. Statistical Test t Results

Hypothesis	Variable	t-count	t-table	Sig.	Decision
H_1	Human Resources → Accountability	4.342	1.998	.000	Accepted
H_2	Participation → Accountability	6.091	1.998	.000	Accepted
H_3	Leadership → Accountability	2.378	1.998	.021	Accepted

Source: SPSS 25 processed data, 2025

Results indicate that all three independent variables significantly influence village fund accountability at the 0.05 level:

1. Human Resources (X_1): t-count (4.342) > t-table (1.998); $p = .000 < .05$, supporting H_1
2. Participation (X_2): t-count (6.091) > t-table (1.998); $p = .000 < .05$, supporting H_2
3. Leadership (X_3): t-count (2.378) > t-table (1.998); $p = .021 < .05$, supporting H_3

Simultaneous Test (F-test)

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The F-test examines whether independent variables collectively influence the dependent variable.

Table 6. Statistical Test F Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	147.856	4	39.964	49.964	.000
Residual	45.129	61	.740	-	-
Total	192.985	65	-	-	-

Source: SPSS 25 processed data, 2025

F-test results (F = 49.964; p = .000 < .05) demonstrate that human resources, participation, and leadership simultaneously exert significant effects on village fund accountability, supporting H_4.

Coefficient of Determination

The Adjusted R^2 value of 0.751 indicates that the regression model explains 75.1% of accountability variance, while the remaining 24.9% stems from factors beyond the research scope, including external environmental conditions, regulatory frameworks, or organizational culture dimensions.

Table 7. Coefficient of Determination

R	R Square	Adjusted R Square	Std. Error of Estimate
.868	.753	.751	.860

Source: SPSS 25 processed data, 2025

Discussion

Human Resources Effect on Village Fund Accountability

Empirical findings confirm that human resource quality significantly enhances village fund accountability ($\beta = 0.301$; $p < .001$), validating H_1. This relationship aligns with stewardship theory, suggesting that competent officials demonstrate professional commitment to transparent governance (Thompson & Miller, 2021). Villages employing qualified personnel exhibit superior planning capabilities, accurate financial documentation, and timely reporting compliance (Wijaya & Kusuma, 2022).

Enhanced competency enables officials to navigate complex regulatory requirements, implement internal controls, and respond effectively to stakeholder inquiries (Nurdin & Pratama, 2023). Conversely, capacity deficits compromise accountability through procedural errors, documentation gaps, and diminished stakeholder confidence (Hassan & Lee, 2021). These results corroborate previous studies demonstrating positive associations between human capital quality and governance performance in developing country contexts (Anderson & Roberts, 2020).

Participation Effect on Village Fund Accountability

Community participation emerges as the strongest accountability predictor ($\beta = 0.289$; $p < .001$), supporting H_2. Participatory governance mechanisms facilitate informal monitoring, reducing information asymmetries and misappropriation risks (Garcia & Thompson, 2021). When communities actively engage in planning, implementation, and evaluation processes, accountability pressures intensify through social oversight and collective ownership (Martinez & Johnson, 2022).

These findings resonate with democratic governance theories emphasizing citizen empowerment as essential for institutional accountability (Williams & Chen, 2020). Participatory approaches strengthen voice mechanisms, enabling communities to articulate priorities, challenge irregularities, and demand responsive governance (Kumar & Singh, 2023). Results align with empirical evidence from various developing countries

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demonstrating that participatory budgeting and community monitoring enhance fiscal transparency and development outcomes (Patel & Zhao, 2022).

Leadership Effect on Village Fund Accountability

Leadership behavior significantly influences accountability performance ($\beta = 0.158$; $p = .021$), confirming H_3. Village heads exercising transformational leadership foster ethical cultures prioritizing transparency, integrity, and professional standards (Brown & Rodriguez, 2022). Leaders modeling accountability behaviors establish normative expectations shaping subordinate conduct and organizational practices (Davis & Anderson, 2021).

Effective leadership aligns individual motivations with collective objectives, ensuring efficient resource deployment and stakeholder trust cultivation (Park & Kim, 2020). Leaders demonstrating vision, competence, and ethical commitment inspire staff performance, institutionalize accountability routines, and strengthen community confidence (Evans & White, 2023). These results complement leadership literature emphasizing behavioral dimensions as critical determinants of organizational effectiveness in public sector contexts (Scott & Morgan, 2021).

Simultaneous Effects Analysis

Collective variable analysis confirms that human resources, participation, and leadership jointly influence accountability significantly ($F = 49.964$; $p < .001$), supporting H_4. This integrated perspective acknowledges that accountability emerges through complex interactions among multiple governance dimensions rather than isolated factors (Clark & Harris, 2022). Optimal accountability outcomes require synergistic combinations of competent personnel, engaged communities, and effective leadership creating reinforcing mechanisms enhancing transparency and responsiveness (Wilson & Taylor, 2020).

The substantial explanatory power (Adjusted $R^2 = 0.751$) indicates robust model specification, though unexplained variance suggests additional factors warrant investigation, including technological infrastructure, regulatory enforcement, or institutional culture characteristics (Cooper & Evans, 2023).

Conclusion

This research provides empirical evidence that human resource quality, community participation, and leadership behavior constitute critical determinants of village fund accountability in Torgamba District. All three factors demonstrate significant positive relationships both individually and collectively, explaining 75.1% of accountability variance. Community participation emerges as the strongest predictor, followed by human resources and leadership, respectively.

These findings validate stewardship theory applications in village governance contexts, demonstrating that competent, participatory, and well-led administrations exhibit superior accountability performance. Results offer actionable insights for policymakers and practitioners seeking to strengthen rural governance frameworks through targeted capacity development, participatory mechanism institutionalization, and leadership enhancement initiatives.

Research Limitations

Several methodological limitations constrain generalizability and interpretation:

1. Geographic Scope: Analysis limited to Torgamba District villages may not reflect broader regional patterns
2. Variable Selection: Focus on three predictors excludes potentially relevant factors including technological infrastructure, regulatory enforcement, or cultural dimensions
3. Cross-sectional Design: Single time-point data collection precludes causal inference and temporal dynamic examination

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4. Measurement Approach: Reliance on perceptual measures may introduce common method bias or social desirability effects

Recommendations

For Policymakers:
- Implement systematic capacity-building programs enhancing village official competencies through training, mentoring, and professional development opportunities
- Institutionalize participatory governance mechanisms including community forums, public hearings, and participatory budgeting processes
- Develop leadership development initiatives cultivating transformational leadership capabilities among village heads

For Village Administrations:
- Prioritize human resource recruitment and retention strategies attracting qualified personnel
- Strengthen community engagement platforms facilitating meaningful participation throughout policy cycles
- Foster accountability cultures through leadership modeling, ethical standards enforcement, and transparency practices

For Future Research:
- Extend geographic scope encompassing multiple districts or provinces for enhanced generalizability
- Incorporate additional variables including technological adoption, regulatory enforcement, and organizational culture
- Employ longitudinal designs enabling causal inference and temporal relationship examination
- Utilize mixed methods approaches integrating qualitative insights with quantitative findings

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