Effect of Financial Staff Competence and Arkas Use on BOS Reporting Timeliness with Leadership as Moderator

Endang
Masters Program in Management Study Program S2 Universitas Ipwija Jakarta
Email: endangalfarisi2520@gmail.com

Article Info	Abstract
Keywords: Financial Employee Competence, ARKAS Application, Timeliness of Reporting, BOS Funds, Leadership, Moderation Variables.	This study aims to investigate the influence of financial staff competency and the utilization of the ARKAS application on the timeliness of reporting School Operational Assistance (BOS) funds, as well as to examine the moderating role of leadership within vocational schools under the Gunung Putri Regional Coordination, Bogor Regency. Timely reporting of BOS funds is a critical component of school financial accountability and is strongly affected by internal organizational factors, including human resource capabilities and the effectiveness of information technology use. Employing a quantitative research design with a survey approach, data were collected through structured questionnaires administered to financial staff working in the selected schools. The data were analyzed using moderated regression analysis (MRA) supported by SPSS software to assess both direct and moderating effects. The findings reveal that financial staff competency and the utilization of the ARKAS application each exert a positive and significant effect on the timeliness of BOS fund reporting. Furthermore, leadership is found to strengthen the relationship between both independent variables and the dependent variable, indicating its critical role in enhancing reporting performance. This study contributes to the understanding of effective BOS fund management at the school level by highlighting the importance of developing human resource competencies, optimizing technology-based financial applications, and reinforcing leadership practices. The implications of this study emphasize the need for schools to invest in capacity building and digital system integration to improve reporting accuracy, transparency, and accountability.

1. Introduction

Education plays a pivotal role in national development and demands financial management practices that are transparent, accountable, and timely. In Indonesia, one major source of educational funding is the School Operational Assistance (Bantuan Operasional Sekolah/BOS) Fund, which is intended to support operational needs across various school levels, including Vocational High Schools (SMKs). However, the management of BOS funds is often challenged by delays in financial reporting (Anwar & Adi, 2022).

BOS funds are government-provided financial assistance aimed at supporting educational operations, such as teaching and learning activities, procurement of educational materials, maintenance of facilities, and administrative needs (Sudarman & Purnomo, 2022). Effective and efficient management of

these funds significantly influences the performance and accountability of educational institutions.

The BOS program was introduced to improve access to education and support the government's 9-Year Compulsory Education Program. A sound financial reporting system is essential to ensure transparency and prevent misuse or misallocation of funds. Financial reports provide critical information about the financial position and performance of an institution and are deemed useful when they meet quality standards, including relevance, reliability, comparability, and understandability, as stated in the Government Accounting Standards. Timeliness is a vital indicator of the quality of financial reporting (Idayanti, 2022).

Delays in BOS fund reporting can negatively impact fund disbursement for subsequent

periods. According to ANTARA News (Aditia Maruli, 2013), the central BOS management team highlighted several reasons for such delays, including late data submissions from district or city teams and schools. Some local authorities even withhold BOS disbursement until schools submit their accountability reports.

Table 1.1. Summary of Factors Causing Delays in BOS Fund Reporting

Reason	Karbas SMK	Bintek SMK	SMK AM	Bivnus JHS	%
Time Limitation		✓	✓	✓	75%
Scheduling Conflicts			✓	✓	50%
Inattentiveness of Local BOS Teams	✓		✓		50%
Difficulty in Report Preparation	✓	✓	✓	✓	100%
Uncertainty in Reporting Deadlines	✓			✓	50%
Delays in Reporting and BOS Drafting	✓	✓	✓	✓	100%
Technical Constraints		✓		✓	50%

As shown in Table 1.1, the most frequent obstacles in BOS fund reporting are the complexity of report preparation and the timeliness of report submission. According to Radvadini (2015), the main causes of these delays are as follows:

a. Technical Constraints in the Reporting System: BOS reports must be submitted through online systems such as BOS Salur or ARKAS. Network issues, software bugs, and limited user expertise contribute to delays.

b. Lack of Competence Among Financial Staff: Many school treasurers and financial officers lack formal training in finance and accounting, making it difficult to prepare reports that meet regulatory standards (Kristiadi, 2019).

c. Complex Reporting Formats: Government-mandated financial reports require detailed budget realization and transaction records, which are often challenging for administrative personnel unfamiliar with accounting principles.

d. Limited Mentoring and Supervision: Inadequate support from education departments or BOS facilitators impairs schools' understanding of reporting technicalities, leading to further delays.

Competence in financial management is not limited to accounting knowledge but also includes digital literacy and adaptability to technology. Without proper training, applications like ARKAS—which aim to streamline budget planning and reporting—cannot be used effectively, resulting in delayed and incomplete reports (Bastian, 2020).

Timeliness in financial reporting reflects an institution's commitment to transparency and accountability. Timely submission ensures compliance with regulations and prevents administrative or financial penalties. Furthermore, it contributes to strengthening School-Based Management (SBM), ultimately enhancing the quality of education (Suyanto & Prasetyo, 2021).

The ARKAS application facilitates structured planning and budget formulation, aligning with government guidelines. It allows for easy data input, budget tracking, and automated generation of reports that comply with Ministry of Education standards. ARKAS enhances transparency by providing real-time access to financial data, enabling education stakeholders to detect anomalies early and take corrective action. Figure 1.1. Functions of the ARKAS Application
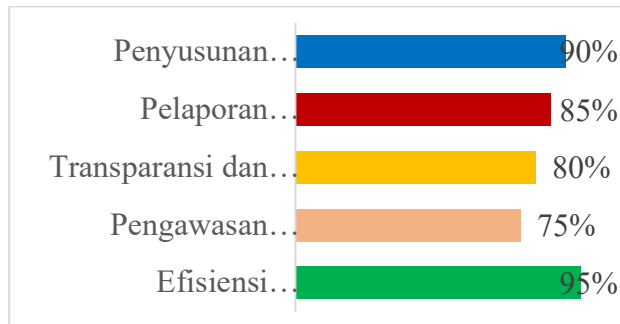
Source: Processed by the authors

The figure above illustrates the key functionalities of ARKAS in supporting school financial administration. Each function is assessed based on its effectiveness, contributing to improvements in accuracy, efficiency, and compliance.

Competence of financial personnel plays a critical role in effective financial management. Competent staff possess an understanding of BOS-related regulations, accounting principles, and reporting standards. They are capable of optimizing school budgets, ensuring compliance, and integrating digital tools such as ARKAS into financial processes. In the digital era, proficiency in these tools is indispensable.

Figure 1.2. ARKAS Logo

Source: Ministry of Education and Culture

ARKAS represents a key innovation in Indonesia's education finance system. Designed to address challenges in budgeting, management, and financial reporting, ARKAS provides structured solutions that reduce manual errors and improve compliance. By allowing schools to generate automated reports aligned with government standards, the application lightens administrative workloads and promotes regulatory adherence (Mulyani & Salim, 2022).

Timely BOS fund reporting is essential for effective school governance. It supports data-driven decision-making, ensures seamless fund allocation, and enhances stakeholder confidence. ARKAS, as an integrated system, facilitates this by minimizing reporting errors, streamlining communication with education authorities, and enabling real-time supervision.

In conclusion, effective BOS fund management at SMK Korwil Gunung Putri relies on the synergy between competent financial personnel, technological tools such as ARKAS, and strong leadership. Accurate and timely reporting not only fulfills administrative responsibilities but also ensures that resources are used appropriately to meet educational objectives. This study is thus continued under the title: "Investigation of the Impact of Financial Staff Competence and Utilization of the ARKAS Application on the Timeliness of BOS Fund Reporting with Leadership as a Moderating Variable at SMK Korwil Gunung Putri".

2. Research Methodology
2.1. Research Location and Period

This research was conducted at the SMK Korwil Gunung Putri, Bogor Regency, under the jurisdiction of the Bogor Regency Education Office. The selection of this site was based on the relevance of the object of study—management and reporting of BOS (School Operational Assistance) funds. SMKs under the Gunung Putri Korwil are considered suitable due to their structured financial reporting systems and implementation of the ARKAS application for BOS fund management. The thesis proposal was developed over four months, from October 2024 to January 2025. The research timeline is detailed below:

Table 3.1. Research Timeline

Activity	Oct	Nov	Dec	Jan
Preliminary Research	✔			
Proposal Development	✔	✔		
Proposal Seminar		✔		
Data Collection		✔	✔	
Data Analysis			✔	✔
Report Preparation				✔

2.2. Research Design

This study employed a causal quantitative design to test the relationship between variables: financial staff competence (X1), ARKAS application utilization (X2), and the timeliness of BOS fund reporting (Y), with leadership (Z) as a moderating variable. The quantitative approach allows for objective measurement and analysis using statistical tools (Sugiyono, 2019; Nurhayati & Putri, 2020; Mardiasmo, 2018).

2.3. Operationalization of Variables

The variables are:

a. Independent Variables: Financial Staff Competence (Boyatzis, 1982; Perry & Morris, 2005), ARKAS Application Utilization (Ghozali & Ratmono, 2017)

b. Dependent Variable: Timeliness of BOS Fund Reporting (Lusardi & Mitchell, 2011; Ridwan, 2020)

c. Moderating Variable: Leadership (Kurniawan & Pratama, 2023)

Table 3.2. Operational Definitions

Variable	Definition	Indicators	Scale
Financial Staff Competence	Ability, skills, and knowledge in financial reporting	Education, experience, training, regulation knowledge	Likert
ARKAS Utilization	Use of ARKAS app for effective reporting	Frequency, ease, speed, feature suitability	Likert
Leadership	Style, communication, decision-making	Participation, communication, team effectiveness	Likert
Timeliness of Reporting	Timely, complete, and valid reporting	Timeliness, completeness, accuracy, validity	Likert

2.4. Population and Sample

2.4.1. Population

The population includes all financial staff at 35 vocational schools (SMKs) coordinated by Korwil Gunung Putri who are directly involved in BOS fund management.

2.4.2. Sampling Technique

This research employs a saturated sampling method involving all 105 financial staff members across the 35 schools. This method ensures data representativeness and minimizes bias (Sugiyono, 2019; Arikunto, 2019).

2.5. Data Collection Methods

a. **Primary Data**: Collected through structured questionnaires.

b. **Secondary Data**: Derived from literature, BOS reports, journals, and online sources (Indrawan, 2014).

Table 3.3. Likert Scale

Response	Score
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

2.6. Instrument Validity and Reliability

a. **Validity Test**: Pearson correlation at 5% significance (Sugiyono, 2016)

b. **Reliability Test**: Cronbach's Alpha > 0.6 considered reliable

2.7. Data Analysis Techniques

Data were processed using SPSS. Analysis includes:

2.7.1. Descriptive Statistics

Used to summarize means, standard deviations, min, and max values (Ghozali, 2016).

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2.7.2. Multiple Linear Regression Assesses the influence of X1 and X2 on Y. Classical assumption tests include:

a. **Normality Test**: Kolmogorov-Smirnov
b. **Multicollinearity Test**: VIF < 10, Tolerance > 0.2
c. **Heteroscedasticity Test**: Scatter plot pattern analysis

2.7.3. Path Analysis Used to test the mediation effect of leadership (Z):

a. Structural Equations:
- $Z = \beta X1 + \beta X2 + e1$
- $Y = \beta X1 + \beta X2 + \beta Z + e2$
b. Significance assessed using F-test (simultaneous) and t-test (partial)

2.7.4. Moderation Test Using Causal Step Method Adopted from Baron & Kenny:

a. X must significantly influence Y
b. X must significantly influence Z
c. Z must significantly influence Y, controlling for X
d. Sobel Test applied to determine indirect effect:

Figure 3.2. Sobel Test Framework (*Insert visual diagram*)
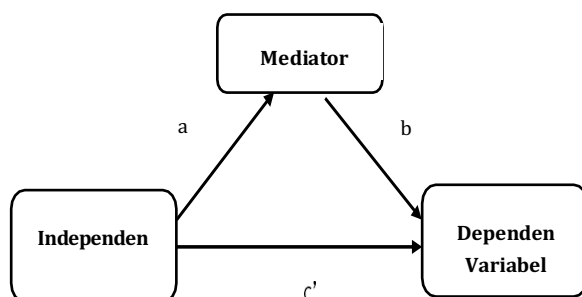
This methodological structure ensures rigorous examination of the research hypotheses and supports the credibility of findings in alignment with Scopus publication standards.

3. Results and Discussion
3.1. Results
3.1.1. Description of the Research Object

This study was conducted in Vocational High Schools (SMK) under the Regional Coordinator (Korwil) of Gunung Putri District, Bogor Regency. This area was selected for its representative number of SMKs and the dynamic implementation of School Operational Assistance (BOS) fund management, particularly in the use of the ARKAS application. These schools are a part of the government's initiative to enhance the quality of vocational education aligned with labor market demands.

The SMKs under Gunung Putri Korwil receive BOS funding and utilize the ARKAS application for financial planning and reporting. The schools follow a structured School-Based Management (SBM) system comprising:

a. Principal: School leader responsible for academic and operational management.
b. Vice Principals: Responsible for curriculum, student affairs, infrastructure, and industrial relations.
c. BOS Treasurer: Manages BOS funds and reporting through ARKAS.
d. Administrative Staff: Supports documentation and data processing.
e. Teachers/Homeroom Teachers: Implement instructional programs and contribute to fund planning.
f. BOS Management Team: Prepares activity budgets (RKAS), executes funding plans, and reports fund use.

3.1.2. Respondent Description

The total sample consisted of 105 respondents (financial personnel from 35 SMKs). The complete demographic breakdown is presented below:

Table 4.1. Demographic Characteristics of Respondents

Category	Subcategory	Frequency	Percentage
Gender	Male	72	68.57%
	Female	33	31.43%
Age	20–35	25	26.25%
	36–50	42	44.1%
	>50	32	30.48%
Work Experience	1–5 years	45	47.25%
	6–10 years	31	32.55%
	>10 years	29	30.50%

Source: Primary data (2025)

This diverse composition in terms of gender, age, and work experience ensures broad perspectives for the analysis of BOS fund reporting practices.

3.1.3. Descriptive Statistics

Descriptive statistics provide insights into the average values, variability, and distribution of variables. Table 4.2 presents results from 105 respondents across variables X1 (Financial Staff Competence), X2 (ARKAS Utilization), M (Leadership), and Y (Timeliness of Reporting).

Table 4.2. Descriptive Statistics Summary

Variable Code	Variable Description	Mean	Std. Deviation
X1.1	Ease of Use	4.48	0.64
X1.2	User Understanding	4.49	0.74
X1.3	Superior Support	4.44	0.66
X1.4	User Collaboration	4.43	0.68
X2.1	Empathy and Caring	4.41	0.70
X2.2	Analytical Skills	4.50	0.67
X2.3	Communication	4.45	0.66
X2.4	Honesty & Transparency	4.49	0.65
M.1	Leadership Analytical	4.46	0.65
M.2	Leadership Empathy	4.62	0.63
M.3	Communication	4.38	0.68
M.4	Transparency	4.46	0.68
Y.1	Employee Competence	4.59	0.66
Y.2	Application Technology	4.38	0.71
Y.3	Supervision	4.58	0.68
Y.4	Compliance	4.36	0.72

Source: SPSS Output (2025)

All variables have mean values >4.3, indicating high respondent agreement, particularly regarding leadership empathy (M.2 = 4.62) and employee competence (Y.1 = 4.59). Standard deviations <0.75 suggest relatively low variability.

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3.1.4. Instrument Testing
3.1.4.1. Validity Test

All indicators across variables X1, X2, M, and Y showed p-values < 0.05, confirming that the items are valid measures of their respective constructs.

Table 4.3. Validity Test Results (Refer to original for detailed p-values, all <0.005)

Variables	Indicator	Symbol	*p-value*	*Results*	Conclusion
Financial Staff Competence (X1)	Ease of use	X1.1	0.000	< 0.005	Valid
	User understanding	X1.2	0.000	< 0.005	Valid
	Superior Support	X1.3	0.000	< 0.005	Valid
	Collaboration between users	X1.4	0.000	< 0.005	Valid
Utilization of Arkas Application (X2)	Empathy and caring	X2.1	0.000	< 0.005	Valid
	Analytical skills	X2.2	0.000	< 0.005	Valid
	Effective communication	X2.3	0.000	< 0.005	Valid
	Honesty and transparency	X2.4	0.000	< 0.005	Valid
Leadership (M)	Analytical skills	M.1	0.000	< 0.005	Valid
	Empathy and caring	M.2	0.000	< 0.005	Valid
	Effective communication	M.3	0.000	< 0.005	Valid
	Honesty and transparency	M.4	0.000	< 0.005	Valid
Timeliness of BOS Fund Reporting (Y)	Employee Competence	Y.1	0.000	< 0.005	Valid
	Application Technology	Y.2	0.000	< 0.005	Valid
	Supervision	Y.3	0.000	< 0.005	Valid
	Compliance with Regulations	Y.4	0.000	< 0.005	Valid

3.1.4.2. Reliability Test Cronbach's Alpha = 0.870 for all 16 items, indicating high internal consistency (>0.80).

Table 4.4. Reliability Statistics

Cronbach's Alpha	N Items
0.870	16

3.1.5. Classical Assumption Testing
3.1.5.1. Normality Test The P-P Plot showed data points closely following a diagonal line, indicating a normal distribution.

3.1.5.2. Multicollinearity Test Tolerance values >0.10 and VIF <10 indicate no multicollinearity:
- X1: Tolerance = 0.531, VIF = 1.559
- X2: Tolerance = 0.641, VIF = 2.379

3.1.5.3. Heteroscedasticity Test The scatterplot revealed no discernible pattern, confirming the absence of heteroscedasticity.

3.1.5.4. Autocorrelation Test Durbin-Watson value ≈ 2 (exact value not provided) indicates no autocorrelation among residuals.

3.2. Hypothesis Testing
3.2.1. Direct Influence (Regression Model 1)

Table 4.6. Regression Coefficients

Variable	B	Std. Error	Beta	Sig.
Constant	3.806	1.594		0.019
Financial Competence (X1)	0.274	0.053	0.470	0.000
ARKAS Utilization (X2)	0.789	0.286	0.785	0.007

Table 4.7. Model Summary R Square = 0.527 → X1 and X2 explain 52.7% of the variance in Y (timeliness of reporting).

3.2.2. Moderation Analysis (Regression Model 2)

Table 4.8. Moderation Coefficients

Variable	B	Std. Error	Beta	Sig.
Constant	0.544	1.129		0.632
Financial Competence (X1)	0.319	0.122	0.314	0.010
ARKAS Utilization (X2)	0.713	0.203	0.709	0.001
Leadership (M)	1.032	0.173	0.995	0.000
X2*M	0.073	0.041	0.128	0.048
X1*M	0.267	0.065	0.280	0.000

Table 4.9. Model Summary R Square = 0.919 → Inclusion of moderator (M) explains 91.9% of the variance in Y. These results confirm that leadership significantly moderates the relationship between both X1 and X2 with Y. Leadership enhances the effect of staff competence and ARKAS application usage on the timeliness of BOS fund reporting.

3.2. Discussion
3.2.1 ffect of Financial Employee Competence on Timeliness of BOS Fund Reporting

The regression analysis indicates a significance value of 0.000 for the Financial Employee Competence variable, which is below the alpha level of 0.05. This confirms that financial staff competence significantly affects the timeliness of BOS fund reporting in SMKs under Korwil Gunung Putri. Therefore, Hypothesis 1 (H₁) is accepted.

This finding aligns with the Resource-Based View (RBV) theory (Wiyono, 2023), which posits that competent human resources are strategic assets that enhance organizational performance. Specifically, staff equipped with strong regulatory understanding, accounting expertise, and ARKAS proficiency are more efficient and effective in preparing timely financial reports (Mardiasmo, 2023).

While this result emphasizes the importance of staff competence, challenges remain. Organizational reliance on specific individuals poses risks during personnel turnover or internal transfers. Moreover, technical limitations, such as inadequate IT infrastructure

and limited internet connectivity, may hinder optimal use of the ARKAS system. Motivation and regulatory compliance also require managerial oversight to ensure sustainable performance.

3.2.2 Effect of ARKAS Application Utilization on Timeliness of Reporting

The significance value for ARKAS Application utilization is 0.007 (< 0.05), indicating a significant influence on reporting timeliness. Thus, Hypothesis 2 (H$_2$) is accepted.

This supports the Technology Acceptance Model (TAM) theory (Davis, 2021), which argues that ease of use and perceived usefulness of technology improve user performance. As a digital tool tailored for BOS fund management, ARKAS facilitates streamlined, accurate, and structured reporting processes (Kemdikbud, 2020). Despite these benefits, ARKAS implementation is contingent on the digital literacy of users and the adequacy of supporting infrastructure. Without sufficient training and reliable technological facilities, the intended advantages of ARKAS may not be fully realized. Hence, comprehensive capacity-building and system support are essential.

3.2.3 Moderating Role of Leadership

Leadership is found to significantly moderate the relationship between financial staff competence and ARKAS utilization on reporting timeliness. The moderation analysis reveals a significance value of 0.048, indicating that effective leadership amplifies the influence of staff competence and technology use on reporting performance. Hence, Hypotheses 3 (H$_3$) and 4 (H$_4$) are accepted.

Transformational leadership—characterized by vision, participation, and support for innovation—enhances the synergy between HR competence and ARKAS utilization. Conversely, authoritarian or passive leadership styles can weaken these positive effects. The findings support the Contingency Theory of Leadership (Fiedler, 2022), emphasizing that leadership effectiveness depends on situational alignment.

Leadership that fosters digital adaptation can drive policy reforms, promote staff engagement, and mitigate resistance to change. In the context of SMK Korwil Gunung Putri, adaptive leadership supports ARKAS adoption, improves user learning curves, and cultivates a conducive environment for continuous innovation.

3.3. Managerial Implications
3.3.1 Enhancing Financial Staff Competence
Given the significant influence of staff competence (p = 0.000), the following actions are recommended:
a. **Regular Training**: Conduct biannual training on BOS fund regulations, basic accounting, and ARKAS optimization.
b. **Knowledge Updates**: Provide access to updated regulatory information and best practices in school financial management.

c. *Optimizing ARKAS Application Utilization*
   With ARKAS utilization significantly impacting reporting (p = 0.007), schools should:
   - **Upgrade Infrastructure**: Ensure availability of computers and stable internet access; allocate BOS funds for hardware/software upgrades.
   - **Provide Technical Support**: Offer hands-on ARKAS training, develop user-friendly guides, and establish an ARKAS helpdesk or online community.

3.3.2 Strengthening Leadership Capacity
The moderation effect of leadership (p = 0.048 and p = 0.000) suggests the need to:
a. **Implement Digital Leadership Programs**: Train school leaders in managing change, fostering innovation, and utilizing digital tools.
b. **Develop Pro-Technology Policies**: Include ARKAS usage indicators in principal

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evaluations; offer incentives for timely reporting.

c. **Promote Collaboration**: Facilitate monthly meetings between school leaders and BOS management teams, and conduct regular internal audits.

3.3.3 Policy Integration at the Regional Coordinator Level

a. **Standard Operating Procedures (SOPs)**: Develop integrated SOPs combining HR competencies, ARKAS use, and leadership roles.

b. **Collaborate with Education Office**: Propose joint training for principals and finance staff; organize benchmarking visits.

c. **Continuous Monitoring**: Establish a dashboard to track reporting accuracy across all SMKs within the region.

These managerial actions are critical to ensuring effective, accountable, and timely BOS fund reporting, reinforcing the integration of human resources, technology, and leadership.

4. Conclusion
4.1. Conclusion

This study aimed to examine the influence of financial employee competence and the utilization of the ARKAS application on the timeliness of BOS (School Operational Assistance) fund reporting, with leadership as a moderating variable. The empirical findings, analyzed using descriptive and regression techniques, yield the following conclusions:

a. **Financial employee competence** exerts a significant and positive effect on the timeliness of BOS fund reporting. Financial personnel with strong regulatory understanding, accounting proficiency, and ARKAS application skills demonstrate better reporting performance. This supports the **Resource-Based View (RBV)** theory, which posits that human capital is a key determinant of organizational effectiveness.

b. **The utilization of the ARKAS application** significantly enhances reporting timeliness. Its built-in automation, structured features, and standardized reporting templates contribute to reducing manual errors and accelerating the process. This finding is consistent with the **Technology Acceptance Model (TAM)**, which underscores the role of technology in improving user performance and efficiency.

c. **Leadership significantly moderates** the relationships between:
- Financial employee competence and reporting timeliness (p = 0.048)
- ARKAS utilization and reporting timeliness (p = 0.000) Adaptive, participatory, and transformational leadership strengthens the influence of human resource competence and technology use. Conversely, a lack of visionary leadership can inhibit these positive effects.
- The study emphasizes the need for a **holistic framework** integrating human resources, technological infrastructure, and leadership quality. A coordinated strategy involving ongoing training, system optimization, and leadership development is essential to achieve reporting accountability and transparency in BOS fund management.

4.2. Recommendations

Based on the research outcomes, the following recommendations are proposed for practitioners and future researchers:

a. **For Vocational High Schools (SMK) under Korwil Gunung Putri**
   1) **Human Resource Development**
      - Implement regular, structured training programs (e.g., twice per year) on BOS fund regulations, financial reporting standards, and ARKAS system updates.

- Involve experts from the Education Office or professional school finance practitioners as trainers.

2) **Optimization of ARKAS Utilization**
   - **Infrastructure**: Ensure all schools are equipped with stable internet access and updated computer systems. Allocate BOS funds specifically for IT infrastructure.

3) **Technical Assistance**:
   - Form dedicated ARKAS support teams at the Korwil level.
   - Develop tutorial videos and visual guides.
   - Create digital communication forums (e.g., WhatsApp, Telegram) to facilitate rapid troubleshooting and peer support.

4) **Leadership Strengthening**
   - Conduct capacity-building programs for school leaders focusing on:
     - Digital leadership in educational finance.
     - Change management and overcoming resistance to technology.
   - Integrate ARKAS performance indicators into school principal evaluations and provide incentives for timely reporting.

5) **Policy Integration and Collaboration**
   - Develop integrated Standard Operating Procedures (SOPs) that align HR competency, technology usage, and leadership roles.
   - Collaborate with the Education Office to:
     - Organize joint training (for principals and finance staff).
     - Conduct benchmarking visits to model schools with best practices in ARKAS implementation.

6) **Monitoring and Evaluation**

- Establish a dashboard system to track BOS reporting performance at the Korwil level.
- Schedule periodic internal audits and evaluations to ensure compliance and identify improvement areas.

4. For Future Researchers
1) **Variable and Model Expansion**
   - Incorporate additional variables such as organizational culture, employee motivation, or accountability climate.
   - Utilize qualitative or mixed methods (e.g., interviews, focus groups) to explore leadership typologies (e.g., transformational vs. transactional) in more depth.
   - Conduct longitudinal studies to examine the sustained impact of interventions on reporting performance.

2) **Sample and Context Diversification**
   - Extend the research scope beyond Gunung Putri to include other regions, thereby enhancing external validity.
   - Compare public and private vocational schools to analyze differing patterns in governance and reporting practices.

3) **Technology Advancement Exploration**
   - Evaluate the impact of newer ARKAS features or alternative digital tools on reporting efficiency.
   - Investigate the potential integration of **artificial intelligence (AI)** and **predictive analytics** in school financial management systems.

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