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The Impact of Civil Servant Performance Management on the Efficiency of Regional Budget Utilization

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Abstract: This study examines the association between civil servant performance management and the efficiency of regional budget utilization in the Government of Aceh Province, Indonesia. An explanatory sequential mixed-methods design was employed, combining a quantitative survey of 100 civil servants involved in regional planning, budgeting, financial management, and program evaluation with qualitative interviews of 12 key informants, including budget managers, planning officials, and internal supervisors. Quantitative data were analyzed using multiple linear regression, and qualitative data were examined through thematic analysis to explain the statistical findings. The results indicate that the six dimensions of civil servant performance management are collectively and statistically associated with the efficiency of regional budget utilization, although the explanatory power of the model is relatively modest. At the individual level, financial compliance and outcome orientation are positively and significantly associated with budget efficiency, and timeliness is significantly but negatively associated with it, whereas performance planning, implementation productivity, and monitoring and evaluation show no significant relationship. Qualitative findings suggest that these patterns reflect differences between the substantive and the procedural implementation of performance management practices, particularly regarding fiscal compliance, outcome-focused budgeting, and year-end budget execution. This study contributes to the literature by suggesting that formal performance management systems alone are insufficient to improve regional budget efficiency; rather, efficiency is more closely associated with substantive fiscal compliance, outcome orientation, and implementation quality within decentralized public administration.

Keywords: civil servant performance management; budget efficiency; performance-based budgeting; explanatory sequential mixed methods; regional government.

1. Introduction

The efficiency of regional budget utilization is one of the key indicators in realizing effective, accountable, and results-oriented governance. From a public-sector management perspective, efficient budget management reflects a government's ability to optimize resources to generate maximum outputs and outcomes for the community. The value-for-money principle emphasizes that public spending must fulfill the aspects of economy, efficiency, and effectiveness (Mardiasmo, 2018). Optimizing budget outcomes is essential for strengthening public trust in local expenditure allocation (Koeswara, 2016). The success of regional budget management should therefore not be assessed solely on the level of budget absorption, but also on the extent to which public expenditures generate meaningful benefits and improve community welfare.

Budget efficiency in the public sector refers to the ability of government organizations to maximize public outputs and outcomes while minimizing the use of financial resources. It reflects the value-for-money principle, emphasizing the optimal relationship among inputs, outputs, and outcomes rather than merely achieving high levels of budget absorption. In performance-based budgeting systems, budget efficiency is evaluated not only through expenditure realization but also through the extent to which public spending generates measurable social and developmental benefits.

In the era of fiscal decentralization, local governments have broad authority to manage the regional revenue and expenditure budget. This authority requires local governments not only to enhance fiscal capacity but also to ensure the quality of performance-based public spending. However, various studies indicate that increases in regional budget allocations are not always followed by proportional improvements in the performance of public-sector organizations (Moynihan, 2008). This condition highlights the importance of strengthening governance mechanisms that ensure public resources are allocated and utilized efficiently to achieve intended development outcomes.

In the Indonesian context, Rahmatunnisa (2018) emphasized that although local-government accountability mechanisms have become increasingly comprehensive, their implementation often remains ineffective because of reporting irregularities, limited institutional capacity, and weak enforcement, conditions that may hinder the achievement of efficient and accountable budget management.

Recent studies have increasingly emphasized that performance-based budgeting and civil servant performance management contribute to public-sector effectiveness. However, existing empirical findings remain inconsistent. Several studies report that performance management improves fiscal efficiency through stronger accountability and performance measurement, whereas others find that administrative compliance alone does not necessarily translate into efficient public spending, because organizational culture, managerial commitment, and institutional capacity moderate these relationships (Mohamed & Kulmie, 2023; Sahara & Salomo, 2025). Consequently, the mechanisms through which different dimensions of civil servant performance management relate to regional budget efficiency remain insufficiently understood, particularly in decentralized government settings.

In the context of Aceh, effective public financial administration also depends on the quality of financial management practices related to civil servants. The management of civil servant salaries in Aceh has been implemented through orderly administrative procedures, accountability mechanisms, and supervisory controls designed to ensure compliance with applicable regulations and prevent irregularities. Accountability and control practices in civil servant financial administration therefore constitute important elements in supporting broader public financial governance and efficient budget utilization (Harahap & Satria, 2023). Strengthening integrity and consistency in the management of civil-servant-related expenditures may thus contribute to enhancing overall fiscal discipline and improving the efficiency of regional budget implementation.

Aceh provides a particularly relevant context for examining this issue because it has a distinctive fiscal and administrative environment within Indonesia. As a province with special autonomy status, Aceh receives substantial fiscal transfers through the Special Autonomy Fund while simultaneously facing increasing pressure to improve public expenditure quality and accountability. Despite relatively large fiscal resources, budget realization and spending quality continue to fluctuate across fiscal years, indicating that improving budget efficiency remains a strategic policy challenge. Aceh therefore offers an important empirical setting for investigating whether civil servant performance management contributes to more efficient utilization of regional budgets.

The efficiency of regional budget utilization becomes increasingly important because the availability of local financial resources is not always stable and can be influenced by various factors, including tax revenues, transfers from the central government, and macroeconomic conditions. These revenue fluctuations require local governments not only to increase budget allocations but also to manage them carefully and in a targeted manner. Effective budget management must therefore align expenditures with fiscal capacity, prioritize programs that provide the greatest benefits to the community, and minimize the potential for waste or inefficient use of resources.

Table 1. Realization of the Revenue and Expenditure Budget of the Government of Aceh Province, Fiscal Years 2021–2024 (IDR Billion)

Type of Revenue/Expenditure	2021	2022	2023	2024
Regional revenue	17,918.49	13,713.58	11,878.03	11,497.05
Regional expenditure	13,984.81	12,726.44	11,404.73	11,339.78

Source: *Government financial statistics of Aceh Province; audited financial report for 2022, data processed.*

The data in Table 1 illustrate that the Government of Aceh Province experienced fluctuating budget dynamics. The realization data for 2021–2024 show that regional revenue declined from IDR 17,918.49 billion in 2021 to IDR 11,497.05 billion in 2024. In 2022, realized revenue (IDR 13,713.58 billion) exceeded realized expenditure (IDR 12,726.44 billion), whereas in the other years revenue and expenditure remained more closely aligned. This pattern indicates pressure on the region's fiscal space and underscores the need for increasingly efficient and performance-based budget management.

The public-management literature emphasizes that the quality of performance management significantly influences the performance of public-sector organizations (Andrews et al., 2011). In local government, civil servants, as the main implementers of development programs, play a strategic role in ensuring alignment among planning, implementation, and the achievement of outcomes. Performance management that is not integrated with the budgeting process may create inefficiencies, resource misallocation, and low program benefits for the community (Pollitt & Bouckaert, 2017).

Operationally, the implementation of civil servant performance management in this study is proxied through six main dimensions: performance planning, implementation productivity, financial compliance, timeliness, outcome orientation, and monitoring and evaluation. These six dimensions represent a comprehensive performance cycle and are expected to influence the efficiency of regional budget utilization. Nevertheless, in local governance practice there are still indications that integration among these performance dimensions has not yet functioned optimally, potentially affecting the quality of regional spending.

The selection of the six dimensions of civil servant performance management is grounded in the performance-management cycle and the performance-based budgeting literature. Performance planning establishes measurable objectives and aligns organizational activities with strategic priorities. Implementation productivity reflects the effectiveness of translating plans into operational outputs. Financial compliance ensures adherence to financial regulations and accountability principles, thereby reducing the risk of inefficient spending. Timeliness measures the ability to execute programs according to planned schedules, minimizing delays that may increase costs. Outcome orientation emphasizes achieving measurable public value rather than merely completing activities. Finally, monitoring and evaluation facilitate organizational learning, corrective action, and continuous improvement by providing feedback for future planning (Mauro et al., 2017; Moynihan, 2008; Pollitt & Bouckaert, 2017).

Although previous studies have examined either performance management or budget efficiency, several important research gaps remain. First, most empirical studies investigate organizational performance at an aggregate level rather than examining specific operational dimensions of civil servant performance management. Second, limited evidence explains how individual dimensions of performance management simultaneously relate to regional budget efficiency within decentralized governments. Third, empirical studies conducted in Indonesian special-autonomy regions, particularly Aceh, remain scarce despite their distinctive fiscal characteristics. Addressing these gaps enables this study to contribute theoretically by extending the performance-management literature and empirically by providing evidence from a distinctive decentralized-governance context.

Based on the preceding discussion, this study aims to analyze the effect of the implementation of civil servant performance management on the efficiency of regional budget utilization in the Aceh Provincial Government. The study is expected to provide theoretical contributions by strengthening the relational model between the dimensions of civil servant performance management and budget efficiency, as well as practical contributions as a basis for formulating policies to improve civil servant performance and the quality of public spending.

Based on the theoretical framework and previous empirical evidence, this study proposes the following hypothesis: the six dimensions of civil servant performance management simultaneously have a significant positive effect on the efficiency of regional budget utilization.

2. Methods

This study employed an explanatory sequential mixed-methods design, in which quantitative data were collected and analyzed in the first phase, followed by qualitative inquiry to explain and elaborate on the statistical findings. The rationale for this design was to obtain both statistical evidence on the relationship between civil servant performance management and regional budget efficiency and contextual explanations of the mechanisms underlying the observed relationships. The qualitative phase was therefore developed on the basis of the quantitative results, particularly the variables that showed statistically significant and non-significant effects.

The research site was the Government of Aceh Province, and the research period spanned January 2025 to December 2025. The quantitative phase was conducted first, to examine the influence of the implementation of civil servant performance management on the efficiency of regional budget utilization. It was carried out within the regional agencies of the Government of Aceh Province that are directly involved in the planning, budgeting, implementation, financial administration, and internal supervision of the province, in order to measure the main independent variable.

The independent variable (X) was civil servant performance management, operationalized through six dimensions:

X_1: performance planning

X_2: implementation productivity

X_3: financial compliance

X_4: timeliness

X_5: outcome orientation

X_6: monitoring and evaluation

The dependent variable (Y) was the efficiency of regional budget utilization, defined as the extent to which regional budget resources are used economically, efficiently, and effectively to achieve intended outputs and outcomes. Unlike simple budget absorption, budget efficiency emphasizes value for money by considering the relationship between financial inputs and achieved program performance.

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Purposive sampling was employed using the following inclusion criteria: (a) respondents were permanent civil servants; (b) they had worked for at least 3 years in their current regional agency; (c) they were directly involved in the planning, budgeting, implementation, financial administration, monitoring, or evaluation of government programs; (d) they had participated in at least one annual regional budgeting cycle; and (e) they occupied functional or structural positions related to budget management.

A total of 100 respondents participated in the survey, comprising approximately 7 to 10 respondents from each participating regional agency. The respondents included heads of divisions, heads of subdivisions, planning officers, financial officers, commitment-making officials, expenditure treasurers, and internal auditors.

The sample size of 100 respondents was considered adequate for a multiple linear regression analysis involving six independent variables. Hair et al. (2019) recommend a minimum of 15 to 20 observations per predictor for regression models, and Green (1991) recommends $N \geq 50 + 8m$ for testing multiple correlations, where m is the number of predictors. With six predictors, the minimum recommended sample is 98 respondents; the sample of 100 therefore satisfies commonly accepted statistical requirements for regression analysis.

Inferential analysis involved testing classical assumptions, including normality, multicollinearity, and heteroscedasticity, to ensure the validity and reliability of the regression model. Multiple linear regression was used to examine the influence of the six dimensions of civil servant performance management (X_1–X_6) on regional budget efficiency (Y), both partially and simultaneously. The regression model was specified as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 \quad (1)$$

where a is the constant and b1–b6 are the regression coefficients for each dimension of civil servant performance management.

Data were collected using a structured, self-administered questionnaire consisting of 35 measurement items. The instrument was organized as shown in Table 2.

Table 2. Structure of the Research Instrument

Variable	Number of Items
Performance planning	5
Implementation productivity	5
Financial compliance	6
Timeliness	5
Outcome orientation	7
Monitoring and evaluation	4
Budget efficiency	3

Source: *The authors, data processed (2025).*

All questionnaire items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The indicators were adapted from previous studies on public-sector performance management and performance-based budgeting (Dewata et al., 2021; Mauro et al., 2017; Moynihan, 2008; Sofyani, 2018) and were modified to suit the Indonesian local-government context.

The qualitative phase was conducted to explain the statistical findings through in-depth interviews with selected key informants, including structural officials and civil servants involved in budget management. The purpose of this phase was to obtain deeper explanations and contextual understanding of the quantitative findings, particularly the factors that support or hinder budget efficiency.

Twelve key informants were purposively selected on the basis of their strategic involvement in regional budget management and their ability to explain the quantitative findings. They comprised four budget managers, three planning officials, three internal supervisors, and two senior administrators involved in regional financial management. Semi-structured interviews were conducted between January and March 2025. Each interview lasted approximately 45 to 90 minutes and was audio-recorded with the participants' consent. The interview guide focused on explaining why certain dimensions of performance management significantly or non-significantly affected regional budget efficiency. Interview recordings were transcribed verbatim, and the data were analyzed using thematic analysis following Braun and Clarke's six-stage procedure: familiarization, initial coding, theme generation, theme review, theme definition, and report preparation. Credibility was strengthened through triangulation across different categories of informants, member checking, and peer debriefing. Interviews continued until thematic saturation was reached, at which point no substantially new themes emerged.

Hypothesis testing was performed both simultaneously and partially. Simultaneous testing examined whether the six dimensions of civil servant performance management collectively have a significant effect on the efficiency of regional budget utilization, and partial testing assessed the individual effect of each dimension. Integrating the quantitative and qualitative findings within the explanatory sequential design provides a more comprehensive understanding of how civil servant performance management practices relate to the efficiency of regional budget utilization in the Government of Aceh Province.

Integration occurred at the interpretation stage of the explanatory sequential design. The quantitative findings determined both the focus of the qualitative inquiry and the selection of interview participants. Specifically, variables showing statistically significant relationships (financial compliance, outcome orientation, and timeliness) were explored to identify the mechanisms underlying their effects, whereas non-significant variables (performance planning, implementation productivity, and monitoring and evaluation) were investigated to understand the organizational factors limiting their contribution to regional budget efficiency. The qualitative findings were then integrated with the quantitative results through narrative comparison to develop comprehensive explanations.

3. Results and Discussion

3.1. Quantitative Research Results

The normality of the regression residuals was assessed using the one-sample Kolmogorov–Smirnov test, as reported in Table 3.

Table 3. One-Sample Kolmogorov–Smirnov Normality Test

Statistic		Unstandardized Residual
N		100
Normal parameters[a,b]	Mean	0.0000000
	Std. deviation	3.454
Most extreme differences	Absolute	0.069
	Positive	0.069
	Negative	−0.045
Test statistic		0.069
Asymp. sig. (two-tailed)		0.200[c,d]

Source: *SPSS output, data processed (2025).*

As presented in Table 3, the asymptotic significance (two-tailed) value of the one-sample Kolmogorov–Smirnov test is 0.200 for a sample of 100. In this test, data are considered normally distributed when the significance value exceeds the chosen significance level ($\alpha = 0.05$). Because $0.200 > 0.05$, the residuals can be considered normally distributed. The test statistic of 0.069 indicates that the maximum difference between the empirical and normal distributions is relatively small, and the residual mean of 0.000 shows that the residuals are centered on zero, consistent with the regression assumptions. The regression model therefore satisfies the normality assumption, and further analyses (the t test and F test) can be validly conducted.

Table 4. Regression Coefficients with Collinearity Statistics

Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	29.935	13.380		2.237	0.028		
Performance planning	0.100	0.102	0.095	0.987	0.326	0.964	1.038
Implementation productivity	0.061	0.095	0.062	0.643	0.522	0.967	1.034
Financial compliance	0.219	0.097	0.217	2.264	0.026	0.976	1.024
Timeliness	−0.223	0.098	−0.217	−2.269	0.026	0.988	1.012
Outcome orientation	0.222	0.099	0.214	2.248	0.027	0.991	1.009
Monitoring and evaluation	0.060	0.095	0.063	0.639	0.525	0.929	1.077

Source: *SPSS output, data processed (2025). Dependent variable: efficiency of regional budget utilization.*

A multicollinearity test was conducted to determine whether the independent variables in the regression model are highly correlated, assessed using tolerance and variance inflation factor (VIF) values. A model is considered free from multicollinearity when tolerance > 0.10 and VIF < 10 (more conservatively, VIF < 5). As reported in Table 4, all independent variables have tolerance values far above 0.10 and VIF values close to 1: performance planning (tolerance = 0.964, VIF = 1.038), implementation productivity (tolerance = 0.967, VIF = 1.034), financial compliance (tolerance = 0.976, VIF = 1.024), timeliness (tolerance = 0.988, VIF = 1.012), outcome orientation (tolerance = 0.991, VIF = 1.009), and monitoring and evaluation (tolerance = 0.929, VIF = 1.077). These results indicate that multicollinearity is unlikely to bias the estimation of the regression coefficients, so the six dimensions of civil servant performance management can be included simultaneously in the regression analysis.

The normality of the residuals was further examined using the normal P–P plot in Figure 1. The normal P–P plot assesses the normality of residuals rather than heteroscedasticity; heteroscedasticity is examined separately using a scatterplot of residuals against predicted values (Figure 2).

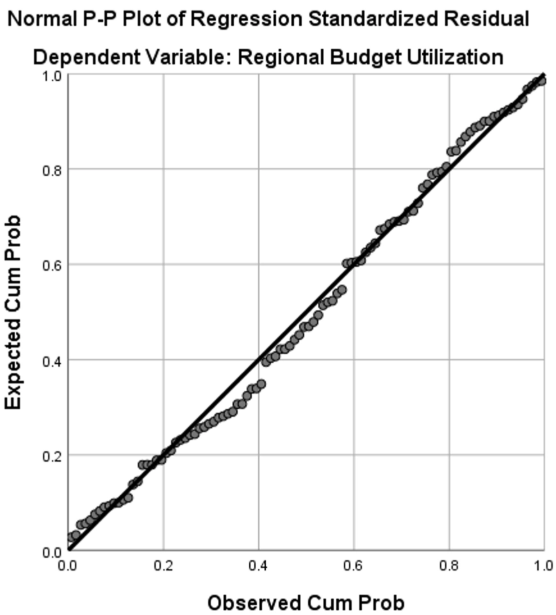

Figure 1. Normal P–P Plot of Regression Standardized Residuals

Source: *SPSS output, data processed (2025).*

As shown in Figure 1, the plotted points lie closely along the diagonal line, with no substantial deviation or systematic curvature, and the distribution appears approximately linear from the lower to the upper tail. These patterns indicate that the regression standardized residuals are approximately normally distributed, and the normality assumption of the regression model is therefore satisfied.

The heteroscedasticity test was conducted by examining the scatterplot of the regression studentized residuals (y-axis) against the regression standardized predicted values (x-axis), as shown in Figure 2. This test determines whether the variance of the residuals is constant (homoscedastic) or varies across levels of the predicted values (heteroscedastic).

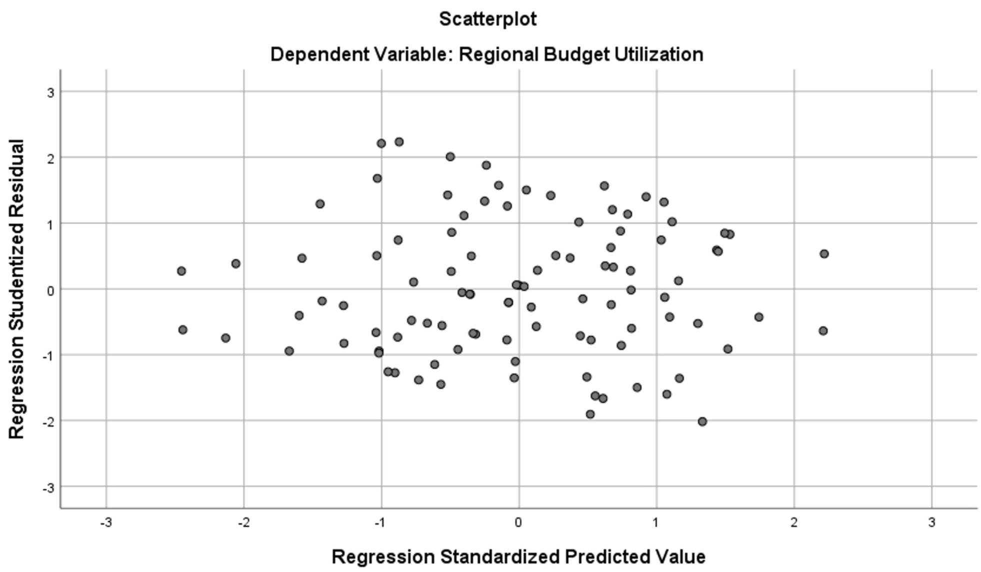

Figure 2. Scatterplot of Studentized Residuals Against Standardized Predicted Values

Source: *SPSS output, data processed (2025).*

As shown in Figure 2, the residual points are randomly distributed above and below the zero line and do not form a systematic pattern such as a funnel shape, wave, or cluster. The spread of the residuals appears relatively constant across the range of predicted values, indicating that heteroscedasticity is not present and that the assumption of homoscedasticity is satisfied. The estimated coefficients can therefore be considered reliable for further hypothesis testing.

The coefficient of determination measures the extent to which the independent variables explain the variation in the dependent variable, as reported in Table 5.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.403a	0.162	0.109	3.564

Source: *SPSS output, data processed (2025). Predictors: (constant), monitoring and evaluation, timeliness, outcome orientation, financial compliance, implementation productivity, performance planning. Dependent variable: efficiency of regional budget utilization.*

As reported in Table 5, R = 0.403 indicates a moderate association between the six dimensions of civil servant performance management and the efficiency of regional budget utilization. The R square of 0.162 indicates that the model explains approximately 16.2% of the variation in the efficiency of regional budget utilization; the remaining 83.8% is associated with other organizational, institutional, and contextual factors not included in this study. The adjusted R square of 0.109, which accounts for the number of predictors and the sample size, indicates that the model explains a modest share of the variation. The standard error of the estimate of 3.564 reflects the average prediction error of the model. Overall, the six dimensions of civil servant performance management explain a modest portion of the variation in the efficiency of regional budget utilization, with a substantial share attributable to factors beyond the scope of this study.

The partial (t) test examines the individual effect of each independent variable on the dependent variable, with the decision rule that a variable has a significant effect when its significance value is below 0.05. The results are reported in Table 6.

Table 6. Regression Coefficients for the Partial (t) Test

Model	B	Std. Error	Beta	t	Sig.
(Constant)	29.935	13.380		2.237	0.028
Performance planning	0.100	0.102	0.095	0.987	0.326
Implementation productivity	0.061	0.095	0.062	0.643	0.522
Financial compliance	0.219	0.097	0.217	2.264	0.026
Timeliness	−0.223	0.098	−0.217	−2.269	0.026
Outcome orientation	0.222	0.099	0.214	2.248	0.027
Monitoring and evaluation	0.060	0.095	0.063	0.639	0.525

Source: *SPSS output, data processed (2025). Dependent variable: efficiency of regional budget utilization.*

As reported in Table 6, performance planning (t = 0.987, p = 0.326) and implementation productivity (t = 0.643, p = 0.522) do not have a significant effect on the efficiency of regional budget utilization. Financial compliance (t = 2.264, p = 0.026) has a significant positive effect, indicating that stronger financial compliance is associated with greater budget efficiency. Timeliness (t = −2.269, p = 0.026) is significant but negative, indicating an inverse association with budget efficiency. Outcome orientation (t = 2.248, p = 0.027) has a significant positive effect, and monitoring and evaluation (t = 0.639, p = 0.525) does not have a significant effect. Thus, in partial terms, only financial compliance, timeliness, and outcome orientation are significantly associated with the efficiency of regional budget utilization, whereas performance planning, implementation productivity, and monitoring and evaluation show no significant individual association.

The simultaneous (F) test determines whether the independent variables jointly have a significant effect on the dependent variable, with the decision rule that the effect is significant when the significance value is below 0.05. The results are reported in Table 7.

Table 7. Simultaneous (F) Test (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	229.645	6	38.274	3.014	0.010b
Residual	1,181.115	93	12.700		
Total	1,410.760	99			

Source: *SPSS output, data processed (2025). Dependent variable: efficiency of regional budget utilization. Predictors: (constant), monitoring and evaluation, timeliness, outcome orientation, financial compliance, implementation productivity, performance planning.*

As reported in Table 7, the F value is 3.014 with a significance of 0.010 (regression df = 6; residual df = 93). Because 0.010 < 0.05, the regression model is statistically significant, indicating that the six dimensions of civil servant performance management are collectively associated with the efficiency of regional budget utilization. In other words, although some variables are not significant individually, the civil servant performance management dimensions jointly explain a meaningful portion of the variation in the efficiency of regional budget utilization in the Government of Aceh Province. The most strongly associated dimensions are financial compliance and outcome orientation, whereas the negative coefficient for timeliness warrants further qualitative investigation.

3.2. Qualitative Research Results

The qualitative phase was conducted to explain and elaborate on the quantitative findings regarding the relationship between civil servant performance management and the efficiency of regional budget utilization in the Government of Aceh Province. Data were collected through in-depth interviews with key informants, comprising budget managers, planning officials, and internal supervisors. The analysis produced several major themes corresponding to the six dimensions of civil servant performance management.

3.2.1. Financial Compliance Strengthens Budget Efficiency

The qualitative findings strongly support the quantitative result that financial compliance is positively associated with budget efficiency. Most informants emphasized that strict adherence to financial regulations, procurement rules, and accountability mechanisms helps prevent budget leakage and unnecessary spending. Several respondents noted that units with a strong compliance culture tend to have more orderly budget absorption and fewer audit findings. As one informant stated, “When financial rules are strictly followed, spending becomes more controlled and targeted.” This suggests that financial discipline plays a central role in improving the efficiency of regional budget utilization.

3.2.2. Timeliness Reveals Implementation Challenges

Although timeliness was statistically significant, its negative coefficient was further clarified through the qualitative findings. Many informants explained that timeliness in practice is often interpreted as pressure to spend quickly toward the end of the fiscal year rather than as timely planning and execution throughout the year. This phenomenon leads to rushed procurement, suboptimal spending decisions, and a concentration of expenditure at year-end. As one informant explained, “Sometimes units focus on absorbing the budget before the deadline, not on spending it efficiently.” This helps explain why higher timeliness scores in the survey may be associated with lower efficiency in practice.

3.2.3. Outcome Orientation Encourages Efficient Spending

The interviews confirm the quantitative finding that outcome orientation is positively associated with budget efficiency. Informants reported that work units focusing on program outcomes tend to prioritize high-impact activities, reduce ceremonial spending, and align budgets with performance targets. Officials noted that the increasing use of performance-based budgeting in Aceh has begun to shift attention from input absorption toward results.

3.2.4. Performance Planning Is Not Yet Optimal

Consistent with the non-significant quantitative result, the qualitative data reveal that performance-planning documents are often administrative in nature and are not fully used as operational control tools. Several issues emerged: planning documents are prepared largely for compliance, the linkage between planning and budgeting is weak, and performance indicators are used only to a limited extent in decision-making. As one respondent noted, “Planning documents exist, but implementation still follows routine patterns.” This helps explain why performance planning did not significantly affect budget efficiency.

3.2.5. Implementation Productivity Remains Procedural

The qualitative findings indicate that productivity in program implementation remains heavily procedure-oriented rather than outcome-driven. Informants mentioned a focus on activity completion, limited innovation in execution, and rigid administrative processes. This condition helps explain the non-significant statistical effect of implementation productivity.

3.2.6. Monitoring and Evaluation Are Not Yet Impactful

Although monitoring and evaluation mechanisms formally exist, the interviews revealed that their use for corrective action remains limited. Key issues identified were that monitoring and evaluation reports are not always followed up, feedback loops are weak, and evaluation is often compliance-based. As one informant stated, "Evaluation reports are prepared, but the follow-up is sometimes minimal." This supports the quantitative finding that monitoring and evaluation are not significantly associated with budget efficiency.

Taken together, the qualitative findings help explain the quantitative results by showing that compliance and outcome orientation are substantively embedded in practice, that timeliness is misinterpreted as year-end absorption pressure, and that planning, productivity, and monitoring and evaluation remain largely procedural. These findings indicate that improving the efficiency of regional budget utilization in Aceh Province requires not only formal performance management systems but also stronger substantive implementation and behavioral change within government units.

3.3. Discussion

The findings indicate that civil servant performance management is collectively associated with the efficiency of regional budget utilization in Aceh Province. When analyzed partially, however, only financial compliance, outcome orientation, and timeliness show significant effects, whereas performance planning, implementation productivity, and monitoring and evaluation show no significant individual effect. This pattern is consistent with the mixed-methods approach, in which the qualitative findings help explain the observed quantitative relationships.

The findings should be interpreted within the broader theoretical perspectives of public-sector performance management, accountability theory, principal–agent theory, and performance-based budgeting. These perspectives suggest that performance management contributes to budget efficiency only when performance information is translated into substantive managerial decisions rather than merely fulfilling administrative requirements. Accordingly, the significance of individual dimensions depends not only on formal compliance but also on how organizational actors use performance information in planning, implementation, monitoring, and resource allocation.

3.3.1. Financial Compliance

The findings support a positive and significant association between financial compliance and budget efficiency. The qualitative interviews emphasized that adherence to financial regulations and accountability mechanisms prevents budget leakage and unnecessary expenditure. This is consistent with research reporting that implementing performance management with a strong focus on financial compliance improves the effectiveness and efficiency of local-government budget utilization (Ateh et al., 2019).

From the perspective of principal–agent theory, financial compliance reduces the information asymmetry between public officials (agents) and government stakeholders (principals) by strengthening transparency and accountability in financial decision-making. Compliance with financial regulations therefore functions not merely as an administrative requirement but as a governance mechanism that limits opportunistic behavior and reduces the inefficient allocation of public resources. This finding is also consistent with the concept of internal control systems, which holds that effective compliance mechanisms improve fiscal discipline and organizational accountability.

Financial discipline is a fundamental element of performance-based budgeting, as it ensures that budget allocations are used in a controlled and prioritized manner, supporting the finding that units with strong financial compliance exhibit higher budget efficiency. Similarly, higher levels of accountability have been found to significantly improve the efficiency of local-government expenditures, indicating that compliance with financial-governance principles contributes to more prudent resource utilization (Rahayu & Khoirunurrofik, 2022). Performance-based budgeting accompanied by effective supervision has also been shown to strengthen budget-control mechanisms, thereby enhancing the effectiveness and efficiency of public financial management (Dewata et al., 2021). The convergence of quantitative and qualitative evidence suggests that financial compliance functions not merely as an administrative obligation but as a strategic mechanism for promoting fiscal discipline within government organizations. Strengthening internal control systems and fostering a culture of accountability among public officials may therefore further enhance the efficiency of regional budget utilization.

3.3.2. Outcome Orientation

Outcome orientation shows a significant positive association with budget efficiency, reinforced by the qualitative findings that units focusing on program outcomes tend to prioritize high-impact activities, minimize ceremonial spending, and align budget allocations with performance targets. This is consistent with research emphasizing that an outcome-based orientation is central to effective performance-based budgeting, as focusing on outcomes encourages a shift from input-driven to outcome-driven budget utilization and thereby improves efficiency.

An emphasis on measurable outcomes enables decision-makers to allocate resources toward programs that generate greater public value and contribute directly to organizational objectives. The implementation of performance-based budgeting is positively associated with the development of performance-measurement systems in local governments, indicating that outcome-oriented budgeting strengthens accountability and enhances the use of performance information in decision-making (Sofyani, 2018). Effective implementation of performance-based budgeting also requires integrating outcome indicators into budget-planning processes to improve spending quality and program effectiveness (Mutiarin et al., 2020), and performance-based budgeting positively influences budget-control effectiveness, suggesting that a focus on expected results facilitates more efficient resource allocation and reduces ineffective expenditure (Dewata et al., 2021). These findings support the argument that outcome orientation is a critical determinant of budget efficiency within public-sector organizations.

This finding is also consistent with public-value theory, which argues that public organizations should prioritize the creation of societal value rather than merely achieving administrative outputs. Within performance-based budgeting systems, outcome orientation encourages public managers to allocate financial resources toward programs generating measurable public benefits, thereby improving both accountability and budget efficiency.

3.3.3. Timeliness

Timeliness shows a significant negative association with budget efficiency. The qualitative evidence suggests that timely budget absorption is often interpreted as accelerating spending toward the end of the fiscal year, leading to rushed procurement, suboptimal expenditure decisions, and concentrated year-end spending. This phenomenon is also discussed in research indicating that limited institutional capacity and bureaucratic culture can distort budget execution, thereby reducing efficiency even when timeliness metrics appear satisfactory (Sahara & Salomo, 2025).

Additional evidence indicates that pressure to achieve spending targets before the fiscal year ends may create incentives for inefficient resource utilization. Government agencies tend to increase procurement expenditure substantially at year-end, and such expenditure is often associated with lower-quality outcomes (Liebman & Mahoney, 2017). Similarly, a review of the literature on wasteful year-end spending concludes that expiring budgets encourage organizations to prioritize budget exhaustion over value creation, resulting in inefficient allocation decisions (Siemroth, 2022). In the Indonesian context, delayed budget execution contributes to the accumulation of expenditure realization at year-end, reflecting weaknesses in planning and implementation (Zaenudinsyah, 2016), and risk-averse behavior and budget uncertainty have been found to significantly influence year-end spending spikes within Indonesian government institutions (Damarjati, 2026). These findings suggest that timeliness indicators should emphasize not merely the speed of budget absorption but also the quality and strategic appropriateness of expenditure throughout the fiscal year.

The negative association between timeliness and budget efficiency can also be interpreted through the budget-absorption-pressure perspective. Public organizations often experience institutional pressure to maximize budget realization before the fiscal year ends in order to avoid future budget reductions, so managers may prioritize expenditure completion over expenditure quality. This phenomenon is closely related to bureaucratic risk aversion and the spending-deadline effect, in which organizations accelerate procurement and spending despite diminishing marginal public value.

3.3.4. Performance Planning, Implementation Productivity, and Monitoring and Evaluation

These three dimensions were not significant in the partial analysis, and the qualitative data revealed several challenges. Performance-planning documents are often administrative, are not fully integrated into decision-making, and lack operationalized performance indicators. Program execution under implementation productivity remains procedure-oriented, focusing on activity completion rather than innovation or strategic impact. Monitoring and evaluation mechanisms exist, but follow-up actions are limited and feedback loops are weak, diminishing their potential effect on budget efficiency.

This finding is consistent with research emphasizing that the quality of planning and evaluation is crucial for the effectiveness of performance-based budgeting in local governments (Sofyani, 2018). Although performance-measurement systems are formally implemented, their use for managerial decision-making remains limited, constraining their impact on organizational performance. The effectiveness of performance-based budgeting likewise depends heavily on the quality of planning processes and the alignment between strategic objectives and operational indicators (Mauro et al., 2017).

Regarding implementation productivity, public organizations frequently emphasize procedural compliance and budget absorption rather than the achievement of strategic outcomes, reducing the transformative potential of performance-based budgeting (Mutiarin et al., 2020). Performance-based budgeting has also been shown to contribute positively to budget control only when accompanied by effective supervisory mechanisms and managerial commitment throughout implementation (Dewata et al., 2021).

With respect to monitoring and evaluation, performance information often fails to influence managerial action because evaluation findings are not systematically incorporated into future planning and resource-allocation decisions (Carpenter & Krause, 2015). Weak follow-up mechanisms and limited organizational learning further reduce the effectiveness of monitoring and evaluation systems in improving public-sector performance and financial outcomes (Mohamed & Kulmie, 2023).

The mixed-methods approach allows this study to capture not only statistical relationships but also the mechanisms behind them. For instance, although timeliness is statistically significant, the qualitative interviews reveal that year-end spending pressures reduce actual efficiency. Likewise, variables that are not significant individually may still contribute collectively, as indicated by the F-test results. This suggests that civil servant performance management as a whole remains relevant for enhancing regional budget efficiency in Aceh Province.

Overall, these findings reinforce empirical evidence that financial compliance and outcome orientation are key correlates of budget efficiency, whereas timeliness, planning, productivity, and monitoring and evaluation require further attention regarding practical implementation and policy integration. Strengthening the use of performance information, improving the quality of strategic planning, promoting outcome-oriented implementation, and ensuring that evaluation results are translated into corrective action may enhance the contribution of these dimensions to regional budget efficiency.

Although several dimensions of civil servant performance management were statistically associated with regional budget efficiency, the regression model explained only a modest proportion of the observed variation. This indicates that regional budget efficiency is influenced by many additional organizational and institutional factors beyond individual performance-management practices, including fiscal capacity, leadership quality, procurement systems, political budgeting processes, regulatory changes, technocratic planning quality, intergovernmental fiscal relations, and the competencies of public financial-management personnel. Future studies should therefore integrate these contextual variables to develop a more comprehensive explanatory model.

Another issue requiring consideration is the potential for social-desirability bias, because the quantitative data were collected through self-reported questionnaires completed by civil servants. Respondents may have tended to provide favorable assessments of compliance, outcome orientation, and monitoring practices because the questions referred to their own organizational performance. The reported associations should therefore be interpreted with caution. Future studies could combine perception-based data with objective financial indicators, audit findings, and administrative performance records to reduce common-method bias.

This study contributes theoretically by extending the performance-management literature in decentralized public administration. The findings suggest that formal performance management systems do not automatically improve regional budget efficiency; rather, substantive implementation—particularly financial compliance, outcome orientation, and effective fiscal governance—appears more influential than merely completing formal planning, implementation, and monitoring procedures.

These findings refine existing performance-based budgeting theory by emphasizing that managerial behavior and organizational accountability may be more critical than administrative compliance alone.

4. Conclusion

This study suggests that civil servant performance management is significantly associated with the efficiency of regional budget utilization in the Government of Aceh Province when the six dimensions are considered simultaneously. However, the explanatory power of the regression model is relatively modest, indicating that performance management is only one of several factors influencing budget efficiency. At the individual level, only financial compliance and outcome orientation (positively) and timeliness (negatively) showed statistically significant associations, whereas performance planning, implementation productivity, and monitoring and evaluation did not. These findings suggest that formal performance-management practices alone are insufficient to improve budget efficiency unless they are supported by substantive implementation and effective organizational governance.

The study contributes to the literature on public-sector performance management by suggesting that the effectiveness of performance management depends more on the quality of fiscal compliance, outcome orientation, and managerial implementation than on the existence of formal planning and evaluation procedures. This reinforces the argument that performance-based budgeting does not automatically improve public-expenditure efficiency unless performance information is actively integrated into organizational decision-making and resource allocation.

Several limitations should be acknowledged. First, the study employed a cross-sectional survey with purposive sampling, so the findings indicate statistical associations rather than definitive causal relationships. Second, the regression model explained only a limited proportion of the variation in regional budget efficiency, suggesting that other determinants—such as fiscal capacity, procurement systems, leadership quality, political budgeting processes, and organizational culture—were not captured. Third, the quantitative data relied primarily on respondents' perceptions, which may be subject to social-desirability bias despite the complementary qualitative inquiry.

From a policy perspective, improving regional budget efficiency requires strengthening substantive rather than merely procedural performance management. Local governments should encourage early procurement, distribute budget implementation more evenly across quarterly periods, and shift performance monitoring from expenditure absorption toward measurable outputs and outcomes. Budget realization should be monitored through outcome-based performance indicators to reduce excessive year-end spending pressure. Furthermore, monitoring and evaluation findings should be systematically incorporated into the subsequent planning and budgeting cycle to ensure continuous organizational learning and evidence-based resource allocation. Future research is encouraged to integrate objective financial indicators and additional organizational variables to develop a more comprehensive explanation of regional budget efficiency.

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