Analysis of Budget Realization Effectiveness and Efficiency (Case Study at the State Treasury Service Office (KPPN) Kupang 2020-2024)

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This study aims to determine the effectiveness and efficiency of internal budget realization at the Kupang State Treasury Service Office (KPPN) from 2020 to 2024. This study uses a descriptive method with a quantitative approach. Data collection was conducted through documentation and limited interviews with parties familiar with budget management at KPPN Kupang. Data analysis was performed using the budget realization effectiveness ratio and efficiency assessment based on the Budget Execution Performance Indicator (IKPA) value. The results show that the effectiveness level of internal budget realization at KPPN Kupang during 2020–2024 was in the effective category, with a percentage ranging from 90.01% to 94.60%. The level of budget execution efficiency based on the IKPA score indicates an efficient category, with the highest score of 95.48 in 2023 and the lowest score of 87.75 in 2020. The results indicate that the internal budget implementation of KPPN Kupang has been on target and supported by good budget execution quality.

Keywords: Effectiveness, Efficiency, Budget Realization, IKPA, KPPN Kupang

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1. Introduction

State financial management is a crucial component of responsible, transparent, and accountable governance. Through sound financial management, the government can ensure that all resources from the State Budget (APBN) are used effectively and efficiently to support the achievement of development goals. In the public sector context, the effectiveness and efficiency of budget use are crucial indicators for assessing the extent to which public fund allocations generate optimal outputs and benefits for the public. Therefore, every government work unit is required to carefully plan, implement, and account for its budget in accordance with the principles of transparency, accountability, and good governance. Within the state treasury system, the State Treasury Service Office (KPPN) plays a strategic role, not only as a channeler of funds to partner work units but also as an internal budget manager to support the implementation of organizational duties and functions (Gemini et al., 2025).

This research focuses on the internal budget implementation of the Kupang KPPN, a vertical work unit under the Ministry of Finance that maintains its own Budget Implementation Document (DIPA). As an agency responsible for implementing the state treasury function in the region, the Kupang State Treasury Service Office (KPPN) requires adequate budget support to carry out various operational and service activities. The internal budget analyzed in this study includes personnel expenditures, goods expenditures, and capital expenditures, all sourced from the State Budget (APBN). These three types of expenditures have different characteristics and objectives, but together they support the ongoing implementation of organizational tasks. In the state treasury system, budget realization is implemented through banking mechanisms and is directly linked to state cash management. Therefore, the success of budget

implementation is measured not only by the amount of funds disbursed but also by the quality of fund use and the accuracy of implementation in accordance with applicable regulations (Batin, 2022).

Evaluating budget execution performance in government agencies is now no longer solely based on the level of budget absorption. High budget realization has often been used as an indicator of successful budget management because it indicates that funds have been absorbed according to the established budget ceiling. However, this approach has limitations because it only reflects the quantity of absorption without considering the quality of budget execution. A high absorption rate does not necessarily reflect sound planning, accurate activity implementation, or compliance with schedules and regulations for state financial management. Therefore, budget execution performance evaluations need to consider aspects of effectiveness and efficiency more comprehensively through the Budget Execution Performance Indicator (IKPA). The IKPA is designed as an instrument capable of reflecting the quality of budget planning, the accuracy of activity implementation, regulatory compliance, and the overall quality of budget management (Pebriani, 2019).

Based on the Kupang KPPN's 2024 Performance Report, internal budget realization during the 2020–2024 period demonstrated relatively high and stable absorption across personnel expenditures, goods expenditures, and capital expenditures. This indicates that budget execution has generally been in line with the targets set in the Budget Implementation Budget (DIPA). The high level of budget realization also indicates the ability of work units to implement programs and activities according to established plans. However, this achievement is not sufficient to reflect the overall quality of budget management. Further in-depth analysis is needed to determine whether this high absorption rate is accompanied by effective and efficient budget use. Therefore, assessing the IKPA value is crucial to obtain a more comprehensive picture of the quality of internal budget implementation at the Kupang KPPN.

Previous research indicates that most studies on budget management in government agencies still prioritize budget absorption as the primary indicator for assessing financial performance. Akbar et al. (2022) concluded that internal budget realization in public institutions is often used as a benchmark for the success of an organization's financial management. Meanwhile, Saleh and Andriana (2021) found that even though the budget has been fully allocated, budget realization does not always reach the set targets, indicating variations in budget management that can impact organizational performance. These research findings demonstrate that assessing budget performance is not sufficient by simply assessing the budget absorption rate; it also requires consideration of the extent to which the budget is used effectively and efficiently. Therefore, an analysis combining effectiveness and efficiency aspects is crucial to provide a more comprehensive picture of the quality of budget execution.

Based on this description, this study aims to analyze the effectiveness and efficiency of internal budget realization at the Kupang State Treasury Service Office (KPPN) during the 2020–2024 period using a quantitative descriptive approach. The analysis is conducted by measuring the budget realization effectiveness ratio and evaluating the Budget Execution Performance Indicator (IKPA) as a measure of budget execution efficiency. The 2020–2024 research period was selected based on significant fiscal dynamics, namely the budget adjustment period due to the COVID-19 pandemic in 2020–2021 and the fiscal consolidation period in 2022–2024. These conditions provide a relevant context for assessing how the Kupang KPPN's internal budget implementation proceeds under different fiscal circumstances, thus obtaining a more comprehensive picture of the effectiveness and efficiency of budget management during the research period.

2. Method

This research is a descriptive study with a quantitative approach. The descriptive approach was used to provide an overview of the effectiveness and efficiency of budget realization as an indicator of budget execution performance at the Kupang KPPN (Regional Treasury Office). The data analyzed were quantitative because they were numerical and could be measured objectively. These included the budget ceiling, budget realization, and Budget Execution Performance Indicator (IKPA) scores obtained from official agency documents (Rakajat, 2018).

The data used in this study were quantitative, consisting of budget realization and the Budget Implementation Performance Indicator (DIPA) ceiling in rupiah, as well as the IKPA score as a percentage. The research data sources included primary and secondary data. Primary data were obtained through limited interviews with employees responsible for budget management at the Kupang KPPN to obtain clarification regarding the budget ceiling, budget realization, and IKPA scores. Meanwhile, secondary data were obtained from official Kupang KPPN documents, including the Budget Implementation Document (DIPA) and the Budget Realization Report (LRA) for the 2020–2024 period.

The population in this study comprises all budget realization data, including budget ceilings and realizations, as well as Budget Execution Performance Indicators (IKPA) data summarized by the Kupang KPPN (State Treasury Office) for the 2020–2024 period. The research sample used a saturated sampling technique, comprising all annual data, including budget ceilings, realizations, and final IKPA scores, at the Kupang KPPN during the study period.

Data analysis techniques used were effectiveness and efficiency analysis. Effectiveness analysis was used to measure the success rate of budget absorption by comparing budget realization against the budget ceiling, both overall and by expenditure type, consisting of personnel expenditures, goods expenditures, and capital expenditures. Effectiveness is measured using the following formula:

Effectiveness = (Budget Realization ÷ Budget Ceiling) × 100%.

The results of the effectiveness calculation are then interpreted based on the criteria proposed by Ekasari (2020), namely, an effectiveness score of 100 percent or more is categorized as very effective, a score of 90–100 percent is categorized as effective, a score of 80–90 percent is categorized as moderately effective, a score of 60–80 percent is categorized as less effective, and a score below 60 percent is categorized as ineffective.

Efficiency analysis is conducted using the final score of the Budget Execution Performance Indicator (IKPA) as the primary instrument for assessing the quality of budget execution. Interpretation of efficiency levels refers to the criteria proposed by Mahmudi in Anuwarlin et al. (2025): a score of 100 percent or more is categorized as inefficient, a score of 90–100 percent is categorized as less efficient, a score of 80–90 percent is categorized as moderately efficient, a score of 60–80 percent is categorized as efficient, and a score below 60 percent is categorized as very efficient.

In addition to analyzing effectiveness and efficiency, this study also analyzed the difference between the budget ceiling and actual budget to determine the amount of unused budget in each fiscal year during the study period. This analysis was used to provide an overview of the level of budget optimization at the Kupang KPPN.

3. Results and Discussion

Overview of the Kupang State Treasury Service Office (KPPN)

The Kupang State Treasury Service Office (KPPN) is a vertical agency under the Directorate General of Treasury within the Ministry of Finance of the Republic of Indonesia. It is tasked with exercising some of the treasury authority and the Power of the State General Treasurer (BUN), disbursing financing under the State Budget (APBN), and administering budget revenues and expenditures. The Kupang KPPN serves 287 work units of vertical ministries/agencies across Timor Island, Sabu Island, Alor Island, and Rote Island, as well as seven regional governments in East Nusa Tenggara.

Based on Minister of Finance Regulation Number 262/PMK.01/2016, the Kupang KPPN's vision is to become a professional, modern, transparent, and accountable regional state treasury manager. The Kupang KPPN's organizational structure consists of one subdivision and four sections, supported by 26 employees: one Echelon III official, five Echelon IV officials, one functional official, and 19 executives.

Kupang KPPN Budget Ceiling and Realization Data for 2020-2024

Data on the Kupang KPPN's internal budget ceiling and realization by expenditure type for the 2020-2024 period are presented in Table 1 below:

Table 1. Kupang KPPN Budget Ceiling and Realization Data for 2020-2024 (Rp)

Year	Description	Employee Shopping	Shopping for Goods	Capital Expenditure
2020	Ceiling	2.137.299.265.000	2.579.298.269.000	2.674.633.862.000
	Realization	2.020.684.604.758	2.434.945.598.810	2.492.270.892.458
2021	Ceiling	2.151.311.802.000	4.286.756.636.000	419.221.7204.000
	Realization	2.118.687.707.317	4.018.917.433.993	3.919.082.166.581
2022	Ceiling	2.214.594.932.000	3.243.152.714.000	2.685.957.213.000
	Realization	2.175.632.009.103	3.112.808.767.044	2562.736.380.761
2023	Ceiling	2.182.018.311.000	410.571.4966.000	3.068.265.133.000
	Realization	2.141.236.572.764	37.397.502.509.00	2.948.462.972.520
2024	Ceiling	2.409.679.072.000	4328.222.829.000	3.445.382.839.000
	Realization	2.433.247.431.356	4.140.744.220.172	2.591.982.698.161

Source: Kupang KPPN, 2026

Based on Table 1, the 2020–2024 budget ceiling and realization data for the Kupang KPPN internal budget covers three types of expenditure: Personnel Expenditures, Goods Expenditures, and Capital Expenditures. In general, the realization of these three expenditure types shows high absorption each year. Personnel Expenditures were the most consistent component, even exceeding the ceiling in 2024, while Capital Expenditures recorded the lowest absorption in the same year. This reflects differences in budget implementation characteristics between each expenditure type.

Analysis of Total Budget Realization Effectiveness

Effectiveness was measured by comparing total budget realization to the total budget ceiling during the 2020–2024 period. The calculation results are presented in Table 2 below:

Table 2. Results of the Calculation of the Kupang KPPN Internal Budget Realization Effectiveness Ratio for 2020–2024

Year	Total Budget Ceiling	Total Budget Realization	Level of Effectiveness	Effective Criteria
2020	7.391.231.396.000	6.947.901.096.026	94,00%	Effective
2021	10.630.285.642.000	10.056.687.307.891	94,60%	Effective
2022	8.143.704.859.000	7.851.177.156.908	94,41%	Effective

Year	Total Budget Ceiling	Total Budget Realization	Level of Effectiveness	Effective Criteria
2023	9.355.998.410.000	8.829.449.796.184	94,37%	Effective
2024	10.183.284.740.000	9.165.974.349.689	90,01%	Effective Criteria

Source: Data processed by the author, 2026

Based on Table 2, the effectiveness rate of the Kupang KPPN's internal budget realization for 2020–2024 ranged from 90.01% to 94.60%, all within the effective category. The highest effectiveness rate occurred in 2021 at 94.60%, while the lowest was in 2024 at 90.01%. In general, budget realization tended to remain stable above 90% each year, reflecting that the implementation of activities and budget utilization at the Kupang KPPN were in accordance with the budget plan stipulated in the Budget Implementation Budget (DIPA).

Effectiveness Analysis by Expenditure Type

Measurement of effectiveness by expenditure type was conducted to provide a more detailed overview of budget execution performance for each expenditure component. The calculation results are presented in Table 3 below:

Table 3. Results of the Effectiveness Ratio Calculation by Expenditure Type at the Kupang KPPN for 2020–2024

Year	Shopping Type	Budget Ceiling	Budget Realization	Effectiveness	Criteria
2020	Employee	2.137.299.265.000	2.020.684.604.758	95%	Effective
	Goods	2.579.298.269.000	2.434.945.598.810	94,40%	Effective
	Capital	2.674.633.862.000	2.492.270.892.458	93%	Effective
2021	Employee	2.151.311.802.000	2.118.687.707.317	98%	Effective
	Goods	4.286.756.636.000	4.018.917.433.993	94%	Effective
	Capital	4.192.217.204.000	3.919.082.166.581	93%	Effective
2022	Employee	2.214.594.932.000	2.175.632.009.103	98%	Effective
	Goods	3.243.152.714.000	3.112.808.767.044	96%	Effective
	Capital	2.685.957.213.000	2.562.736.380.761	95%	Effective
2023	Employee	2.182.018.311.000	2.141.236.572.764	98%	Effective
	Goods	4.105.714.966.000	37.397.502.509.00	91%	Effective
	Capital	3.068.265.133.000	2.948.462.972.520	96%	Effective
2024	Employee	2.409.679.072.000	2.433.247.431.356	101%	Effective
	Goods	4.328.222.829.000	4.140.744.220.172	96%	Effective
	Capital	3.445.382.839.000	2.591.982.698.161	75%	Effective

Source: Data processed by the author, 2026

Based on Table 3, the effectiveness level per expenditure type at the Kupang KPPN (State Treasury Office) for 2020–2024 shows variation across components. Personnel Expenditures recorded the highest and most consistent effectiveness, increasing from 95% in 2020 to 101% in 2024, categorized as Very Effective. Goods Expenditures remained stable at 91%–96%, categorized as Effective. Capital Expenditures experienced the most fluctuation, dropping to 75% in 2024, becoming the only component categorized as Less Effective due to delays in the procurement process for goods and services.

Analysis of the Difference between Budget Ceiling and Budget Actual

A difference analysis was conducted to determine the amount of unutilized budget each year. The results are presented in Table 4 below:

Table 4. Difference between Budget Ceiling and Budget Actual at the Kupang KPPN for 2020–2024

Year	Total Budget Ceiling	Total Budget Realization	Difference
2020	7.391.231.396.000	6.947.901.096.026	6%
2021	10.630.285.642.000	10.056.687.307.891	5%
2022	8.143.704.859.000	7.851.177.156.908	4%
2023	9.355.998.410.000	8.829.449.796.184	6%
2024	10.183.284.740.000	9.165.974.349.689	10%

Source: Data processed by researchers, 2026

Based on Table 4, the percentage difference between the budget ceiling and actual budget realization of the Kupang KPPN for 2020–2024 ranged from 4% to 10%. The lowest difference occurred in 2022 at 4%, reflecting budget absorption closest to the target. While the highest difference occurred in 2024 at 10%, or more than IDR 1 trillion, primarily due to low realization of Capital Expenditures. This indicates that there is still a budget surplus that has not been optimally utilized at the end of each fiscal year.

Budget Execution Efficiency Analysis Based on Budget Execution Performance Indicators (IKPA)

Data on the achievement of the Kupang KPPN Budget Execution Performance Indicators (IKPA) for the 2020–2024 period is used to assess the level of budget execution efficiency. The IKPA is an indicator established by the Ministry of Finance to measure the quality of budget execution performance from the aspects of planning, implementation, and results (Suparto, 2021). The results of the IKPA assessment are presented in Table 5 below:

Table 5. KPPN Kupang IKPA Scores for 2020-2024

Year	Nilai IKPA	Criteria
2020	87,75	Less Efficient
2021	95,06	Efficient
2022	92,58	Efficient
2023	95,48	Efficient
2024	95,14	Criteria

Source: IKPA KPPN Kupang, 2024

According to Table 5, the IKPA KPPN Kupang ranged from 87.75 to 95.48 during the 2020–2024 period. 2020 was the only year classified as less efficient (87.75), while all years 2021–2024 fell into the efficient category. The highest score was achieved in 2023 at 95.48, and the lowest in 2020 at 87.75.

Discussion

Effectiveness of Kupang KPPN's Internal Budget Realization 2020-2024

The effectiveness of Kupang KPPN's internal budget realization for 2020-2024 shows a relatively stable trend in the effective category, with a percentage exceeding 90% annually. This condition aligns with the concept of effectiveness, which states that an activity is considered effective if it achieves its planned goals or targets (Ekasari, 2020). A consistent level of effectiveness reflects that budget realization at Kupang KPPN is able to approach the budget ceiling target set each year.

Personnel expenditures were the expenditure type with the highest and most consistent effectiveness rate throughout the study period, ranging from 95% (2020) to 101% (2024). The high effectiveness of personnel expenditures is influenced by their use, which is directly related to routine office operational needs, making them easier to plan and implement. Interview results confirmed that expenditure types with routine use and clear implementation typically have more stable realization because they follow established operational activities each year. Goods expenditure maintained a stable effectiveness rate between 91%

and 96% throughout the study period, reflecting effective management of operational funds. Changes in goods expenditure effectiveness were influenced by the procurement process for goods and services and the implementation of operational activities. Meanwhile, capital expenditures showed the greatest fluctuation, with a peak of 96% (2023) and a low of 75% (2024, categorized as less effective). This decline was influenced by delays in the procurement process for goods and services and adjustments to activity implementation during the year.

Budget variance analysis showed that the remaining budget percentage was in the range of 4% to 10%. The lowest variance occurred in 2022 (4%) and the highest in 2024 (10%). The decline in effectiveness and the increase in budget variance in 2024 were influenced by delays in activity implementation, the procurement process for goods and services not proceeding according to schedule, and the need for a smaller budget than planned. This study's findings align with the findings of Putri et al. (2020) regarding the Tegal KPPN, which showed budget realization effectiveness in the effective category, as well as research by Nurmega et al. (2025) regarding KPPN Makassar I with an effectiveness ratio ranging from 93.98%–97.04%. This condition confirms that KPPN, as a vertical agency of the Directorate General of Treasury, is generally capable of realizing its internal budget in accordance with the established targets.

Budget Execution Efficiency Based on the IKPA

The efficiency of the Kupang KPPN's internal budget execution for 2020-2024, based on the IKPA achievement, indicates relatively good conditions with an increasing trend. The IKPA score ranges from 87.75 to 95.48, with four of the five years (2021-2024) falling into the efficient category. 2020 was an exception, with a score of 87.75 (less efficient), indicating that several IKPA assessment components had not been optimally achieved during the initial phase of the study. The increase in the IKPA score from 87.75 (2020) to 95.06 (2021) indicates a significant improvement in the quality of internal budget management. This is supported by routine budget evaluations, quarterly monitoring of performance targets through the MyIntres application, and coordination between divisions in implementing activities. Interviews confirmed that IKPA monitoring is conducted routinely during monthly budget meetings, where each division reports on budget realization progress and target achievement. The highest IKPA score throughout the study period was achieved in 2023 at 95.48, reflecting the best quality of budget execution. This high IKPA score indicates that the IKPA assessment component indicators, including deviations on Page III of the DIPA (Division of Budget Implementation) document, UP/TUP management, bill settlement, and budget absorption, were better met compared to previous years. The decline in IKPA scores in certain years, such as in 2022 (92.58), was influenced by changes in achievement in several performance indicators that were not as optimal as in the previous year. These research findings support the findings of Pebriani (2019) who stated that the effectiveness and efficiency of budget execution are influenced by the alignment between budget planning, activity implementation, and budget realization. In this study, this alignment is evident from the consistent effectiveness level and IKPA scores, which are mostly in the efficient category. In contrast to the findings at the Singaraja KPPN (2016-2018), which indicated suboptimal conditions, the Kupang KPPN has demonstrated continuous quality improvement.

There is a link between the effectiveness and efficiency of budget execution at the Kupang KPPN. Effectiveness indicates the ability to realize the budget within the DIPA ceiling, while efficiency indicates the quality of budget management, as reflected in the IKPA achievement. These two dimensions are mutually supportive but measured through different indicators. As stated by Mardiasmo (2021), effectiveness refers to target achievement, while efficiency emphasizes the optimal use of resources.

4. Conclusion

Based on the research and discussion on the effectiveness and efficiency of internal budget implementation at the Kupang State Treasury Service Office (KPPN) for the 2020-2024 period, the following conclusions can be drawn: First, the effectiveness of the Kupang KPPN's internal budget implementation (DIPA) during the 2020-2024 period was in the effective category, with an effectiveness percentage ranging from 90.01% to 94.60%. This indicates that budget implementation at the Kupang KPPN has generally achieved its budget ceiling targets. Based on effectiveness per expenditure type, personnel expenditures were the expenditure type with the highest and most consistent effectiveness (95%-101%). Goods expenditures were also in the effective category (91%-96%), while capital expenditures showed the greatest fluctuation, including a decline to the less effective category (75%) in 2024.

Second, the efficiency of the Kupang KPPN's internal budget implementation, based on the Budget Execution Performance Indicators (IKPA) during the 2020-2024 period, was generally in the efficient category. The lowest IKPA score was 87.75 in 2020 (less efficient), while the highest score was 95.48 in 2023 (efficient). This indicates that budget implementation at the Kupang KPPN has generally been in line with the established budget execution performance targets and is supported by effective monitoring, evaluation, and coordination between departments.

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