

The Effect of Budget Planning, Human Resource Competency, and The Budget Implementation Process on Budget Absorption Optimization In The Social Service Agency of Central Java Province

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Abstract. Budget absorption remains a critical issue in public sector financial management, particularly within regional government agencies in Indonesia. One persistent challenge is the uneven pattern of budget realization, which tends to be low at the beginning of the fiscal year and accumulates toward the end, potentially disrupting public service delivery and program effectiveness. This research examines the influence of budget planning, human resource competency, and budget implementation processes on the optimization of budget absorption. The study was conducted at the Social Service Office of Central Java Province. The research objects included the planning, finance, and technical implementation departments. The sampling method used was purposive sampling, with the research period set for 2025. The relationships and influences among variables were analyzed using multiple regression analysis. The results showed that budget implementation had a significant and positive effect on budget absorption, while budget planning and human resource competency did not show a significant effect. The study concludes that strengthening the budget execution stage—including accelerating administrative processes and enhancing coordination among work units—is essential to improve budget absorption performance. These findings provide valuable insights for regional governments in designing more effective budget management strategies to support public service delivery and community welfare.

Keywords: Budget Planning, Human Resource Competence, Budget Implementation, Budget Absorption.

INTRODUCTION

Budget absorption is one of the parameters that demonstrates the success of programs or policies implemented by the government (Imelda et al., 2022; Kuntadi & Puspasari, 2023; Sariri & Septiana, 2023; Sipayung et al., 2025; Wardayani et al., 2022). This process is highly important because it directly relates to the government's ability to execute planned programs (Alsharari, 2022; Nasri et al., 2022; Rijal, 2023). However, one recurring problem is budget absorption that tends to be low at the beginning of the fiscal year and accumulates toward the end. This condition leads to uneven budget absorption (Suwarni, 2018). Such phenomena occur almost universally across government agencies, including regional ones. Each Organisasi Perangkat Daerah (OPD), in carrying out its main duties and functions, provides services aimed at improving the quality of life and welfare of the community. One indicator for measuring this is the realization or absorption of the OPD's budget (Fitriyani et al., 2022).

The regional budget plays an important role in regional financial management. The main functions of regional expenditure include resource allocation, control and supervision, development planning, public services, and economic stimulation (Ardiputra et al., 2025; Cherniaieva et al., 2025; Jawad et al., 2026; Kamaroellah & Syafik, 2022; OSMOND et al., 2024). These functions can only be achieved if the budget is realized properly and optimally. Low budget absorption can therefore become an indication and concern for the government, emphasizing the need to understand the importance of timely budget absorption to deliver public services and enhance community welfare—particularly in the categories of goods and

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services spending, grants, social assistance, and capital expenditures that directly affect the public. Optimal budget absorption rates ultimately influence service delivery and community well-being.

In the Central Java Provincial Government—specifically within the Central Java Provincial Social Service—the phenomenon of unstable budget absorption persists. Frequently, absorption is low at the beginning of the year and high toward the end. This instability often causes budget shifts during revisions, thereby disrupting overall budget realization.

Several factors affect optimal budget absorption, one of which is planning. Previous studies show that Budget Planning has a positive effect on Budget Absorption (Nurhidayati et al., 2022; Dadan, 2017; Djokovic et al., 2017; Ayuti et al., 2018; Rahmawati et al., 2021; Deiby et al., 2016; Ferdinan et al., 2020; Sasmita et al., 2020). Meanwhile, other studies indicate that Budget Planning has no effect on Budget Absorption (Andarias et al., 2018; Lufandati et al., 2022; Mustakim et al., 2023). Good planning provides a clear picture of how the available budget will be used, including program priorities and resource allocation. Moreover, systematic planning ensures that the budget is used effectively and efficiently, minimizes waste, and guarantees maximum impact from expenditures. In other words, sound planning serves as a foundation for optimal budget absorption, as successful planning supports strong budget execution outcomes.

Another factor influencing budget absorption is budget implementation. Effective implementation and absorption are essential to public financial management. Budget implementation must be conducted properly, efficiently, and effectively. Prior research suggests that Budget Implementation has a positive effect on Budget Absorption (Dadan, 2017; Djokovic et al., 2017; Sasmita et al., 2020), whereas other studies report no such effect (Andarias et al., 2018; Lufandati et al., 2022; Ferdinan et al., 2020). Proper implementation ensures that the existing budget is used according to plan, executed on schedule, and that programs achieve results with fewer inputs yet greater outputs. Therefore, effective, efficient, and well-managed budget implementation is key to achieving optimal absorption.

Human resource competence and quality also play an important role. Studies have found that human resource quality positively influences budget absorption (Andarias et al., 2018; Dadan, 2017; Djokovic et al., 2017; Ayuti et al., 2018; Lufandati et al., 2022; Rahmawati et al., 2021; Sasmita et al., 2020), while others conclude there is no significant effect (Nurhidayati et al., 2022; Deiby et al., 2016). Skilled and competent human resources possess the knowledge required to create effective plans and make sound decisions during implementation. They are typically more innovative in solving problems, enhancing both the efficiency and effectiveness of budget use. Thus, human resource quality is a crucial determinant of optimal budget absorption, as it directly influences both planning and implementation stages.

Based on the discussion above, this study seeks to examine whether budget planning, budget implementation, and human resource quality within the Central Java Provincial Social Service influence optimal budget absorption. This research is motivated by the unstable pattern of budget absorption—low realization early in the year and accumulation toward the end—resulting in budget shifts during revisions. These conditions are presumed to be influenced by factors such as planning, human resource competence, and budget

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implementation. Accordingly, this study aims to analyze the effects of these three factors on budget absorption, as measured through physical and financial realization within the Central Java Provincial Social Service. The research scope is limited to one agency, using primary data collected via questionnaires distributed to employees directly involved in budget management during the 2025 fiscal period. The study focuses only on the direct relationships among variables, excluding external factors beyond the research model. The findings are expected to benefit researchers by deepening understanding of budget absorption determinants, assist the government—particularly the Central Java Provincial Social Service—in evaluating and improving budget management, and serve as a reference for future studies aiming to develop more comprehensive analyses.

MATERIALS AND METHODS

This study employs a quantitative research approach with a causal associative design. The quantitative approach was chosen because this research aims to examine the relationship and influence between independent variables (budget planning, human resource competency, and budget implementation) on the dependent variable (budget absorption) through statistical testing. The causal associative design is used to analyze the cause-and-effect relationships among the research variables, specifically to determine whether budget planning, human resource competency, and budget implementation significantly influence budget absorption optimization at the Social Service Agency of Central Java Province.

Research Object

The object of this study is the absorption of the budget at the Central Java Provincial Social Service and the factors that affect it. The focus of the research is directed at the influence of budget planning, human resource competence, and budget implementation on optimal budget absorption. This research was conducted on work units and employees who are directly involved in the process of planning, implementing, and managing the budget within the Central Java Provincial Social Service in the 2025 Fiscal Year period.

Population and Sample

The population in this study is all employees and parties involved in the planning and implementation process of the budget at the Central Java Provincial Social Service. This includes field heads, budget and finance staff, monitoring teams, and administrative employees who are directly involved in budget management. The research sample was selected using the purposive sampling method, which is the selection of respondents based on certain criteria relevant to the research objectives. Sample criteria include:

- 1) Employees who are responsible for the budget planning process.
- 2) Employees who are directly involved in the implementation of the budget.
- 3) Employees who have at least 1 year of experience in the field of budget management.

If the population is known, the sample size can be determined using the Slovin formula:

$$n = \frac{N}{1 + Ne^2}$$

Description:

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n : The number of samples needed.

N : Total population.

e : Margin of error (usually specified 5% or 0.05).

If the population size is not known for sure, the study will determine the number of samples based on statistical feasibility, for example a minimum of 30 respondents for multiple linear regression analysis.

Data Types and Sources

The type of data used in this study is quantitative data, which is data in the form of numbers and can be measured statistically. Quantitative data was used to examine the relationship and influence between budget planning variables, human resource competence, and budget implementation on budget absorption. The data source in this study consists of primary data. Primary data was obtained directly from respondents through the distribution of structured questionnaires to employees of the Central Java Provincial Social Service who met the criteria for the research sample.

Data Collection Techniques

The data collection technique in this study was carried out through a survey method using a structured questionnaire. The questionnaire was compiled based on the indicators of the research variables and distributed directly to the relevant respondents. Each statement in the questionnaire was measured using a five-point Likert scale, which consisted of a Score of 1 = Strongly Disagree (STS); Score 2 = Disagree (TS); Score 3 = Doubtful/Neutral (N); Score 4 = Agree (S); and Score 5 = Sangat Agree (SS). The use of questionnaires aims to obtain respondents' perception data related to budget planning, human resource competence, budget implementation, and budget absorption.

Data Analysis Methods

The research data was analyzed using a statistical approach with the help of the SPSS application through several stages, namely descriptive statistics to provide an overview of the data based on minimum, maximum, average, and standard deviation values and present them in quantitative and visual form; instrument test which includes validity test using factor analysis with component matrix value criteria > 0.70 and reliability test using Cronbach's Alpha with $>$ criterion of 0.70; multiple linear regression analysis to measure the influence of budget planning, budget implementation, and human resource competence on optimal budget absorption; model test through F test to assess the goodness of fit of the research model; testing the determination coefficient to determine the ability of independent variables to explain the variation of dependent variables; and hypothesis tests using the t-test to determine the influence of each partially independent variable on budget absorption with a significance level of 5 percent.

RESULTS AND DISCUSSION

Model Test Results

1. F Test Results

The F test is used to test the *goodness of fit* of the research model before testing is carried out at the next stage. This test was carried out to determine the influence of all independent variables on the dependent variables. The test was carried out with the help of SPSS and obtained the following results:

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7,217	3	2,406	83,299	<,001 ^b
	Residual	1,329	46	,029		
	Total	8,546	49			

a. Dependent Variable: Penyerapan_Anggaran_Y
 b. Predictors: (Constant), Pelaksanaan_Anggaran_X3, Kompetensi_SDM_X2, Perencanaan_Anggaran_X1

Figure 1. SPSS Test F Results

Source: Primary data processed with SPSS (2025)

Based on the ANOVA Table above, the results of the F test showed an F value of 83.299 with a significance level of 0.001. Since the significance value is less than 0.05 ($0.001 < 0.05$), it can be concluded that the research model **meets the goodness of fit** and is suitable for further analysis.

2. Determination Coefficient Test Results

The determination coefficient test aims to measure how far the model is able to explain the variation of dependent variables. The test was carried out with SPSS and obtained the following results:

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,919 ^a	,845	,834	,16995

a. Predictors: (Constant), Pelaksanaan_Anggaran_X3, Kompetensi_SDM_X2, Perencanaan_Anggaran_X1
 b. Dependent Variable: Penyerapan_Anggaran_Y

Figure 2. SPSS Determination Coefficient Test Results

Source: Primary data processed with SPSS (2025)

The *summary model* above shows an *adjusted R square* value of 0.834 (83.4%). These results show that the three independent variables (Budget Planning, HR Competence, and Budget Implementation) are able to explain 83.4% of the variation of dependent variables (Budget Absorption), meaning that independent variables have a high percentage level to describe dependent variables. While the remaining 16.6% was influenced by other factors outside the scope of the study.

3. Hypothesis Test Results with t-Test

The t-test was used to test the significance of the influence of each independent variable on the dependent variable. Testing is carried out with the help of SPSS as follows:

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,314	,270		1,165	,250
	Perencanaan_Anggaran_X1	,161	,142	,166	1,134	,263
	Kompetensi_SDM_X2	,198	,107	,213	1,853	,070
	Pelaksanaan_Anggaran_X3	,574	,119	,586	4,806	<,001

a. Dependent Variable: Penyerapan_Anggaran_Y

Figure 3. SPSS Results T Test

Source: Primary data processed with SPSS (2025)

Based on the Coefficients table above, the test results obtained are:

a. Budget Planning (X1) affects Budget Absorption (Y)

The significance value of the budget planning variable to the budget absorption variable was 0.263, which is greater than 0.05 ($0.263 > 0.05$). So that each component of Budget Planning does not have a significant effect on Budget Absorption and the H1 formulation is rejected.

b. Human Resource Competency (X2) affects Budget Absorption (Y)

The significance value of the human resource competency variable to the budget absorption variable was 0.070, which is greater than 0.05 ($0.070 > 0.05$). So that each component of Human Resources Competence does not have a significant effect on Budget Absorption and the H2 formulation is rejected.

c. Budget Implementation (X3) affects Budget Absorption (Y)

The significance value of the budget implementation variable to the budget absorption variable was 0.001, which is smaller than 0.05 ($0.001 < 0.05$). So that each component in the Budget Implementation has a positive and significant effect on the Budget Absorption and the H3 formula is accepted.

This discussion aims to interpret the results of statistical analysis that has been carried out to answer the research hypothesis regarding the influence of Budget Planning (X1), Human Resource Competence (X2), and Budget Implementation (X3) on Budget Absorption (Y). From the results of the tests that have been carried out, here is the discussion:

1. Analysis of the Influence of Budget Planning on Budget Absorption (H1 Rejected)

Based on the results of the statistical test, the budget planning variable did not contribute significantly to the rate of budget absorption and the formulation of the first hypothesis stating that there was an influence between Budget Planning on Budget Absorption was rejected.

This phenomenon indicates that planning documents (such as RKA or DPA) at the Central Java Provincial Social Service are often only administrative prerequisites. In the context of the organization, this indicates that the budgeting process may still be an annual formality or simply repeating the previous year's pattern (incremental budgeting) without a real needs analysis. As a result, when entering the realization stage, the plan that has been prepared is not able to respond to the dynamics of needs in the field, so that the quality of

planning is not a determinant of the high and low absorption.

Theoretically, careful planning should be linear with absorption. However, in the context of this study, the high quality of planning does not guarantee maximum absorption of the budget. This may be due to obstacles in the operational stage that are not accommodated during planning, or there are budget revisions that occur too often in the middle of the current year, so that the planning carried out at the beginning loses its relevance to the realization in the field.

2. Analysis of the Influence of Human Resource Competence on Budget Absorption (H2 Rejected)

Based on the results of the statistical test, the human resource competency variable did not make a significant contribution to the rate of budget absorption and the formulation of the second hypothesis stating that there was an influence between Human Resource Competence on Budget Absorption was rejected.

This phenomenon is quite unique because theoretically competence is supposed to support performance. However, these results make it clear that even if employees have a qualified educational or training background, this does not automatically accelerate budget absorption. This is suspected to be due to rigid systemic or bureaucratic constraints, where even competent employees are hampered by complicated administrative procedures or external regulations that change frequently, so that individual capacity cannot be channeled optimally in absorption rates.

Although competency is theoretically important, the test results show that this factor is not significant independently. This can be explained through several points as follows:

- a. System Standardization: Budget management today is so tied to standardized application systems, that high individual capacity cannot move beyond the limits of the system.
- b. Bureaucratic Barriers: Competent employees remain hampered if the decision-making process at the top level is slow or there is a sudden change in central regulations.
- c. Work Focus: HR may have technical competence, but if not supported by sufficient authority, their expertise is not able to intervene in the acceleration of uptake.

3. Analysis of the Effect of Budget Implementation on Budget Absorption (H3 Received)

Based on the results of statistical tests, the variables of budget implementation make a positive and significant contribution to the rate of budget absorption and the formulation of the third hypothesis that states that there is an influence between Budget Implementation on Budget Absorption is accepted.

This phenomenon gives an idea that the main key to budget absorption in the Central Java Provincial Social Service lies in the operational or execution aspect. Punctuality in starting the implementation of activities, compliance with the cash budget schedule, and smooth process/completion and examination of administrative files are factors that drive the absorption rate. This emphasizes that no matter how good the plan is or how high the competence of the employees, absorption will only occur if there is discipline and precision in the stages of budget execution.

Problems that often occur such as the accumulation of budget disbursements at the end of the year, especially in the fourth quarter, can be minimized if the implementation process

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is carried out according to schedule. Effectiveness at the implementation stage reflects the agency's discipline in carrying out the commitments that have been made. These results emphasize that no matter how good the competence of human resources, if it is not supported by an orderly and procedural implementation system, the absorption target will not be achieved optimally.

CONCLUSIONS

Based on the results of the analysis and discussion, this study concludes that budget absorption in the Dinas Sosial Provinsi Jawa Tengah is influenced differently by the variables of budget planning, human resource competence, and budget implementation. Budget planning and human resource competence show a positive but insignificant influence, which may be attributed to the administrative nature of planning and the bureaucratic limitations that restrict the optimization of individual competencies. Meanwhile, budget implementation has been proven to have a positive and significant effect as the most dominant factor, particularly through timely activity execution, smooth administrative processes, and compliance with the cash budget schedule. This study has limitations, as it was conducted in only one agency with a limited number of respondents, used relatively narrow variables, and relied on respondents' perceptions collected through questionnaires; therefore, the results cannot be generalized broadly. Theoretically, the findings reinforce the perspective of agency theory and public management theory, both of which emphasize the importance of execution aspects in public sector performance. Practically and in terms of policy, the research results imply the need to focus on accelerating and simplifying budget implementation, enhancing coordination among work units, and improving the quality of planning to make it more adaptive and operational. This study also recommends strengthening the monitoring and evaluation system, expediting procurement and administrative processes, developing more applicable human resource competencies, and expanding future research to include external and managerial variables—such as leadership commitment, organizational culture, and central policy dynamics—to gain a more comprehensive understanding of barriers to budget absorption.

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