

## An Empirical Study of Budget Absorption in the Human Resources Development Agency of West Java Province

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### ABSTRACT

**Purpose**—This study investigates the influence of budget planning, budget implementation, and human resource competency on budget absorption at the Human Resources Development Agency (BPSDM) of West Java Province. The research addresses a critical issue of fluctuating budget absorption rates, ranging from 81.97% to 96.86% in the past five years, and explores determinants to enhance financial efficiency and public service delivery.

**Design/methods/approach** – The study employs a quantitative research design with a descriptive and associative approach. Primary data were collected through structured questionnaires distributed to 45 employees involved in budgetary processes. The collected data were analyzed using multiple linear regression, supported by classical assumption tests, to evaluate the individual and collective impacts of the independent variables.

**Findings**—The results reveal that human resource competency significantly and positively influences budget absorption ( $t$ -value = 2.806,  $p < 0.05$ ). However, budget planning and budget implementation did not show significant individual effects on budget absorption ( $p > 0.05$ ). Collectively, the three variables significantly influence budget absorption ( $F$ -value = 12.340,  $p < 0.05$ ), with an  $R^2$  value of 0.474, indicating that 47.4% of the variance in budget absorption is explained by these factors.

**Research implications/limitations**—The study highlights the critical role of human resource development in improving budget absorption. However, the findings are limited to the context of BPSDM West Java, and external factors such as political interference and organizational culture were not examined. Future studies should incorporate broader variables and cross-regional comparisons for generalizability.

**Originality/value**—This research contributes to public financial management literature by emphasizing the role of human resource competency in budget absorption, an area often overshadowed by procedural factors. The findings provide actionable insights for policymakers to improve budget realization rates through targeted capacity-building and systemic enhancements.

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## Introduction

Efficient budget absorption is a cornerstone of effective public financial management, ensuring that resources are utilized optimally to achieve intended socio-economic objectives. In Indonesia, the budget absorption process is particularly significant, given the country's decentralized governance structure, which delegates substantial financial responsibilities to regional governments. The province of West Java, the largest by population, represents a microcosm of these challenges. Despite its critical role in advancing regional development, budget realization in West Java's government institutions often lags behind expectations, with fluctuations in absorption rates underscoring persistent inefficiencies.

The Human Resources Development Agency (BPSDM) of West Java Province, tasked with developing the competencies of civil servants, has faced inconsistent budget absorption over the past five years. Deviations between allocated and realized budgets, ranging from 3.14% to 18.03%, highlight systemic issues in planning, implementation, and capacity building. As noted by Agus Fatoni (2023), these discrepancies can undermine program delivery, disrupt economic activities, and erode public trust in governance. Similarly, the Ministry of Finance attributes delays in budget absorption to inadequate planning, poor execution mechanisms, and insufficient financial management competencies among public officials.

This study adopts Stewardship Theory and Goal-Setting Theory as its theoretical frameworks to explore these issues. Stewardship Theory emphasizes the accountability of government actors in serving the public interest, aligning institutional goals with societal needs (Davis et al., 1997). Goal-Setting Theory, on the other hand, highlights the importance of specific, measurable, and time-bound objectives in enhancing organizational performance (Locke & Latham, 1990). Together, these theories provide a lens to examine how institutional practices and individual competencies within BPSDM influence budget absorption.

Existing literature provides mixed perspectives on the factors affecting budget absorption. Budget Planning is widely regarded as the foundation of efficient financial management. Studies by Ferdinan et al. (2020) and Sasmita et al. (2020) demonstrate that meticulous planning, grounded in robust data and aligned with organizational objectives, significantly improves absorption rates. However, contrasting findings by Christofer et al. (2024) suggest that even well-structured plans may fail to translate into efficient absorption if other factors, such as external interference or poor execution, come into play.

Budget Implementation, the second critical factor, involves the translation of plans into actionable programs. According to Bungkus Sasongko (2021), implementation efficacy depends on clear processes, adequate oversight, and the availability of supporting infrastructure. However, inconsistencies in implementation mechanisms, such as delays in procurement and reporting, often lead to underperformance, as highlighted by Novita Dayang (2023).

Human Resource Competency emerges as a pivotal variable, influencing both planning and execution. Studies by Rizka et al. (2021) and Ramadhani & Setiawan (2019) highlight the positive correlation between skilled personnel and efficient budget absorption. Key competencies include knowledge of financial regulations, technical skills in budget management, and behavioral attributes such as integrity and accountability. However, other scholars, including Christofer et al. (2024), caution that systemic factors, such as political interference and resource constraints, may dilute the impact of individual competencies.

The primary aim of this study is to analyze the effects of budget planning, budget implementation, and human resource competencies on budget absorption at BPSDM West Java Province, both individually and collectively. By identifying key determinants, the study

seeks to offer practical recommendations for enhancing budget performance and contributing to broader discussions on public financial management in regional government institutions.

The significance of this research lies in its potential to bridge gaps in existing literature and provide actionable insights for policymakers. The findings are expected to inform not only the academic community but also practitioners and policymakers seeking to optimize public financial management in Indonesia and beyond

## Methods

This research adopts a quantitative approach to investigate the relationship between budget planning, budget implementation, and human resource competency on budget absorption at the Human Resources Development Agency (BPSDM) of West Java Province. The study is descriptive and associative in nature, which aligns with the approach described by Amrudin et al. (2022), where descriptive research aims to provide an accurate depiction of phenomena, while associative research analyzes relationships among variables. A multiple regression analysis framework was employed to evaluate the influence of independent variables (budget planning, budget implementation, and human resource competency) on the dependent variable (budget absorption). This approach is commonly used in public financial management studies to uncover determinants of effective budget utilization (Sugiyono, 2018).

The population of the study comprised all employees at BPSDM West Java, totaling 106 individuals. A purposive sampling technique was used, which is suitable for targeting specific groups with relevant expertise, as suggested by Priadana & Sunarsi (2021). The sample included 45 respondents directly involved in budget planning, implementation, and reporting, such as financial administrators, planners, and verification officers. This sampling method ensured the collection of data that was both relevant and representative of the organizational roles critical to budget absorption.

Data collection relied on a structured questionnaire designed based on validated constructs from prior studies and adapted to the organizational context of BPSDM. According to Sugiyono (2018), questionnaires are an effective tool for capturing respondents' perceptions in quantitative research. The questionnaire was divided into four sections: demographic information, budget planning, budget implementation, and human resource competency. Items were measured using a Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5), a method widely regarded for its reliability and simplicity in quantifying attitudes (Riyanto & Hatmawan, 2020). Specific items addressed planning accuracy, compliance with regulations, execution mechanisms such as LS, UP/GU, and TU, as well as human resource competencies, including knowledge, skills, and behavioral attributes. Before full-scale deployment, the questionnaire underwent a pilot test to ensure its reliability and validity. The results demonstrated high reliability, with Cronbach's Alpha scores exceeding 0.7 for all variables, meeting the threshold established by Nunnally (1978).

Data analysis proceeded in several stages. First, descriptive statistics were used to summarize the characteristics of respondents and provide an overview of the variables. Validity tests using Pearson's correlation and reliability tests using Cronbach's Alpha were conducted to ensure the robustness of the instrument, as described by Ghozali (2018). Classical assumption tests were performed to validate the regression model, including normality tests (Kolmogorov-Smirnov), multicollinearity tests (Variance Inflation Factor), and heteroskedasticity tests (Glejser method). The primary analysis employed multiple linear regression, a technique recommended by Sugiyono (2018) for assessing the relationship

between multiple predictors and a single outcome variable. Additionally, hypothesis testing was conducted using t-tests for partial effects and F-tests for simultaneous effects, following the guidelines provided by Ghazali (2018). The coefficient of determination ( $R^2$ ) was calculated to measure the proportion of variance in budget absorption explained by the independent variables, offering insights into the model's explanatory power.

The research was conducted at BPSDM West Java, located in Bandung, Indonesia, over a three-month period from March to May 2024. This timeline allowed for comprehensive data collection and in-depth interactions with respondents, enhancing the accuracy and validity of the findings. Following recommendations by Creswell (2014), the validity of results was further reinforced through triangulation, involving follow-up interviews with key informants, including financial managers and unit heads. Ethical considerations were rigorously maintained throughout the study. Respondents provided informed consent, their anonymity was preserved, and all data were used exclusively for research purposes, in line with ethical standards outlined by Creswell (2014).

## Result

This section presents the findings of the study, categorized into descriptive statistics, hypothesis testing, and regression analysis. The results highlight the relationships between budget planning, budget implementation, and human resource competency on budget absorption at BPSDM West Java Province.

### Descriptive Statistics

Descriptive statistics were used to summarize the characteristics of the respondents and their perceptions of the study variables. The respondents consisted of 45 employees involved in budget planning, implementation, and financial reporting. Table 1 shows the demographic characteristics of the respondents.

Table 1. Demographic Profile of Respondents

Characteristics	Frequency	Percentage (%)
Gender (Male)	28	62.22
Gender (Female)	17	37.78
Education (Undergraduate)	17	38.00
Education (Postgraduate)	12	27.00
Work Experience (>10 years)	26	57.78

Respondents' perceptions of the independent variables—budget planning, budget implementation, and human resource competency—were measured on a Likert scale. Table 2 provides a summary of their perceptions.

Table 2. Perception Scores for Independent Variables

Variable	Mean Score	Classification
Budget Planning (X1)	83.82%	Very Good
Budget Implementation (X2)	75.64%	Good
Human Resource Competency (X3)	77.02%	Good

The results indicate that respondents viewed budget planning positively, with a mean score of 83.82%, classified as "very good." Budget implementation scored 75.64%, classified as "good," reflecting moderate satisfaction with the execution processes. Human resource competency scored 77.02%, also classified as "good," highlighting adequate knowledge, skills, and behavior among personnel involved in budget processes.

### Hypothesis Testing

#### Partial Effects (t-Tests)

To assess the individual effects of the independent variables on budget absorption, t-tests were conducted. The results are summarized in Table 3.

Table 3. t-Test Results

Variable	t-Value	p-Value	Conclusion
Budget Planning (X1)	0.412	0.682	Not significant
Budget Implementation (X2)	0.228	0.821	Not significant
Human Resource Competency (X3)	2.806	0.008	Significant (Positive Impact)

The findings indicate that human resource competency (X3) has a positive and significant impact on budget absorption, with a p-value below 0.05. In contrast, budget planning (X1) and budget implementation (X2) did not have significant effects individually, as their p-values exceeded the threshold of 0.05.

#### Simultaneous Effects (F-Test)

The F-test was conducted to evaluate the collective effect of the independent variables on budget absorption. The results are presented in Table 4.

Table 4. F-Test Results

F-Value	p-Value	Conclusion
12.340	0.000	Significant (All variables affect absorption)

The F-test demonstrates that budget planning, budget implementation, and human resource competency collectively have a significant impact on budget absorption.

### Regression Analysis

Regression analysis was performed to determine the influence of the independent variables on the dependent variable. The regression equation obtained is as follows:

$$Y = 14.812 + 0.063(X1) + 0.029(X2) + 0.382(X3)$$

The constant value of 14.812 represents the baseline budget absorption when all independent variables are zero. Among the independent variables, human resource competency (X3) has the highest coefficient (0.382), indicating its substantial influence on budget absorption. Budget planning (X1) and budget implementation (X2) have lower coefficients, consistent with their lack of significance in the t-tests.

### Coefficient of Determination ( $R^2$ )

The coefficient of determination ( $R^2$ ) for the model is 0.474, as shown in Table 5.

Table 5. Coefficient of Determination ( $R^2$ )

$R^2$ Value	Explanation
0.474	47.4% of the variance in budget absorption is explained by the independent variables.

This indicates that 47.4% of the variance in budget absorption can be explained by budget planning, budget implementation, and human resource competency, while 52.6% is influenced by other factors not included in this study.

## Discussion

This study examined the effects of budget planning, budget implementation, and human resource competency on budget absorption at the Human Resources Development Agency (BPSDM) of West Java Province. The findings provide significant insights into the determinants of budget absorption and contribute to the broader discourse on public financial management.

### Interpretation of Findings

The results indicate that human resource competency has a positive and significant impact on budget absorption, aligning with prior research emphasizing the importance of skilled personnel in financial management. Rizka et al. (2021) and Ramadhani & Setiawan (2019) similarly found that knowledge, technical skills, and behavioral attributes of employees significantly influence budget realization. These findings highlight that investments in human resource development, such as training, certification, and ongoing professional development, can enhance budget absorption by improving employees' ability to manage financial processes effectively.

In contrast, budget planning and budget implementation were not found to have significant individual effects on budget absorption. These results partially diverge from studies by Ferdinan et al. (2020) and Novita Dayang (2023), which suggest that meticulous planning and efficient implementation play crucial roles in ensuring budget realization. A possible explanation for this discrepancy is that, in the context of BPSDM West Java, planning and implementation may already meet minimum standards, resulting in their effects being less pronounced when considered independently. Alternatively, systemic factors such as external interference, political dynamics, or resource constraints may overshadow the influence of planning and implementation.

The simultaneous effects of budget planning, implementation, and human resource competency on budget absorption were significant, as indicated by the F-test results. This supports the notion that budget absorption is a multifaceted process influenced by the interplay of various factors, consistent with Stewardship Theory. This theory suggests that aligning institutional practices with public accountability requires an integrated approach involving systemic, procedural, and human elements (Davis et al., 1997).

### Implications of Findings

The findings have several practical implications for policymakers and practitioners. First, the significant role of human resource competency underscores the need for targeted capacity-building initiatives. Programs such as financial management training, certification in



procurement, and workshops on regulatory compliance can enhance employee performance and, consequently, budget absorption rates.

Second, while planning and implementation may not significantly impact absorption individually, they remain critical components of the budgeting process. Improving the integration between planning and implementation phases, such as through advanced data analytics, real-time monitoring systems, and enhanced inter-departmental coordination, can further strengthen the overall process.

Finally, the results suggest the importance of addressing external and systemic factors that may influence budget absorption. These include improving procurement processes, minimizing bureaucratic delays, and fostering a culture of transparency and accountability within the organization.

### **Comparison with Previous Studies**

This study's findings contribute to the ongoing debate in the literature regarding the determinants of budget absorption. While the role of human resource competency aligns with studies by Rizka et al. (2021) and Santika et al. (2023), the limited individual effects of planning and implementation differ from the conclusions of Ferdinan et al. (2020) and Novita Dayang (2023). These differences highlight the contextual nature of budget absorption, suggesting that organizational, cultural, and external factors may influence the relative importance of each determinant.

### **Future Research Directions**

Several areas for future research emerge from this study. First, exploring additional variables, such as political interference, organizational culture, or stakeholder engagement, could provide a more comprehensive understanding of budget absorption. Second, conducting similar studies in other regional or national contexts would allow for cross-comparative analyses and generalizations. Third, qualitative research methods, such as interviews or case studies, could complement quantitative approaches by uncovering deeper insights into the underlying mechanisms and barriers to budget absorption.

## **Conclusion**

This study examined the impact of budget planning, budget implementation, and human resource competency on budget absorption at the Human Resources Development Agency (BPSDM) of West Java Province. The findings highlight the significant role of human resource competency, which has a positive and substantial effect on budget absorption. This underscores the critical importance of skilled personnel in managing financial processes effectively. In contrast, budget planning and budget implementation, while essential to the budgeting process, did not exhibit significant individual effects on budget absorption. However, when these factors were analyzed collectively, they significantly influenced budget absorption, demonstrating the importance of an integrated and holistic approach to financial management.

From a practical standpoint, the findings suggest several actionable recommendations. First, investing in human resource development through targeted training, certifications, and workshops is vital for enhancing employee competencies in financial management. Second, improving the integration of planning and implementation phases, supported by advanced technologies such as real-time monitoring systems and inter-departmental coordination, can strengthen the overall budgeting process. Third, addressing systemic barriers, including bureaucratic delays and inefficiencies in procurement processes, and fostering a culture of transparency and accountability, is essential for optimizing budget absorption.

The findings of this study have significant implications for policymakers and organizational leaders. By prioritizing the development of human resources and enhancing systemic processes, institutions can improve their budget absorption performance, reduce inefficiencies, and achieve organizational goals more effectively. Moreover, adopting a data-driven approach to planning and monitoring can help address existing gaps and promote better financial management practices.

This study also opens several avenues for future research. Incorporating additional variables, such as political interference, organizational culture, and stakeholder engagement, could provide a more comprehensive understanding of budget absorption dynamics. Cross-regional studies could also enable comparative analyses, shedding light on context-specific factors and their influence on budget absorption. Furthermore, employing mixed-methods approaches, combining quantitative analysis with qualitative insights, could uncover deeper mechanisms and challenges in the budgeting process.

In conclusion, this study reaffirms the importance of human resource competency in achieving optimal budget absorption while emphasizing the need for integrated processes and systemic improvements. These findings offer valuable guidance for policymakers and practitioners aiming to enhance public financial management and achieve broader developmental objectives.

## **Declarations**

### **Author contribution statement**

The lead author participated in the study's conceptualization and design, analysis, interpretation of data, and initial drafting of the paper. Each author contributed to the critical revision of the content for intellectual rigor and provided final approval for the published version. All authors are responsible for every aspect of the work.

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### **Data availability statement**

The data supporting this study's findings are available from the corresponding author upon reasonable request. However, due to privacy and ethical considerations, the data are not publicly accessible.

### **Declaration of Interests Statement**

The author states that there is no potential conflict of interest during the preparation of this research article. This research was conducted without funding or grant support from any individual, organization, or institution. The author would like to thank all respondents who have participated in the study.

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