

Research Article

The Influence of Procurement Planning and HR Competence on Procurement Budget Effectiveness through Mediation of Compliance with Procurement Regulations

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Abstract: The research objective is to analyze the influence of procurement planning and human resources competency on procurement regulatory compliance. To analyze the influence of procurement planning, human resources competency, and procurement regulatory compliance on procurement budget effectiveness. To analyze the influence of procurement regulatory compliance on the mediation of procurement planning and human resources competency on procurement budget effectiveness. This type of quantitative research uses primary data in the form of questionnaires. The population in this study is the tender and selection work carried out within the Central Java Provincial Government in the 2024 Fiscal Year. The sample in this study was 27 members of the Selection Working Group, 21 members of the Planning Person In Charge team and 24 representatives of Regional Device Organization, so the total number of primary data is 72 people. Data analysis used linear regression analysis. The results show that procurement planning, human resource competency, and compliance with procurement regulations have a positive and significant effect on procurement budget effectiveness. Procurement planning and human resource competency have a positive and significant effect on procurement regulation compliance. Compliance with Procurement Regulations mediates the influence of procurement planning and human resource competency on procurement budget effectiveness. In addition, the findings highlight the strategic role of compliance with procurement regulations as a bridging factor that strengthens the relationship between planning and competency toward budget effectiveness. This implies that even though good planning and competent human resources are important, without strong adherence to procurement rules, the effectiveness of the procurement budget may not be fully achieved. Therefore, institutional commitment to fostering a culture of compliance, supported by continuous training and monitoring, is essential to ensure that procurement practices are transparent, accountable, and aligned with regulatory frameworks.

Keywords: budget effectiveness; human resource competency; procurement planning; regulatory compliance

Received: July 22, 2025
Revised: August 05, 2025
Accepted: August 19, 2025
Published: August 21, 2025
Curr. Ver.: August 21, 2025



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1. Introduction

Corruption prevention efforts that need to be developed by local governments in the area of procurement of goods and services need to be focused on preventing corruption in the implementation of procurement, namely procurement transparency, especially through compliance with Public Procurement Plant Information System input and the implementation of e-purchasing, procurement consolidation, including support for domestic products. Another thing that needs to be encouraged is the prevention of corruption in strategic local government projects through the implementation of HPS reviews, early auctions, compliance and supervision to prevent delays and non-compliance with predetermined technical specifications.

According to [1], procurement planning through adequate budget availability, regulatory compliance, stakeholder (user) involvement, and the implementation of prepared procurement plans influence the effectiveness of public procurement in Dodoma City, Tanzania. According to [2], the implementation of the Procurement Planning Policy at the Bandung Regency Health Office has not been optimal. According to [3], the implementation of Goods/Services Procurement needs to be better prepared, with the hope that this will have implications for the efficiency and effectiveness of the use of state funds spent through the Goods/Services Procurement process. However, in Central Java, research has not yet been conducted on whether procurement planning affects the effectiveness of the Goods/Services Procurement budget.

According to [4], human resource competency significantly influences the effectiveness of budget absorption for goods/services procurement. In this case, increasing human resource capacity in the Regional Apparatus of West Sumbawa Regency has proven to support the success of budget implementation. According to [5], human resource competency positively influences the quality of goods/services procurement at the State Civil Service Agency. The quality of goods/services procurement is defined according to the objectives of the goods/services procurement, which include producing the right goods/services for every money spent, measured from the aspects of quality, quantity, time, cost, location, and provider. According to [6], the quality of human resources and procurement of goods/services positively influences the effectiveness of budget use in the Regional Apparatus Organization (OPD) of Magelang Regency. However, a different opinion was conveyed by [7], where human resource quality does not have a significant influence on budget absorption within the Central Java Provincial Government. Therefore, it is necessary to re-examine how human resource competency influences the effectiveness of the goods/services procurement budget.

According to [8] and [9], Procurement Compliance Guidelines indicate that compliance with procurement will reduce the number of errors. According to [10] and [8], Compliance with procurement regulations allows buyers/users to ensure procurement is carried out in a transparent, fair, and accountable manner. According to [11], compliance with procurement regulations mediates the influence of procurement planning on Value for Money in public procurement. According to [12], the level of compliance of goods/services procurement officials in West Papua Province is in the high category. Meanwhile, according to [13], individual emotional intelligence has a positive effect on compliance with goods/services procurement regulations. However, it is not yet known whether compliance with procurement regulations also mediates the influence of procurement planning and human resource (HR) competence on the effectiveness of the goods/services procurement budget. So with this question, it can also be researched how procurement planning and HR competency can improve compliance with procurement regulations and also enable the implementation of procurement budget effectiveness.

2. Literature Review

2.1. Procurement Planning and Procurement Budget Effectiveness

According to LKPP Regulation No. 11 of 2021 [14], the regulation concerning guidelines for government procurement of goods/services is intended to ensure procurement of goods/services in accordance with the objectives, policies, principles, and ethics of procurement. According to Presidential Regulation No. 16 of 2018 and its amendments [15], the principles of procurement of goods/services are efficient, effective, transparent, open, competitive, fair, and accountable. According to [7], budget planning has a positive and significant impact on budget absorption. Budget planning is a crucial factor to maximize budget absorption and budget effectiveness. According to [1], procurement planning, through adequate budget availability, regulatory compliance, stakeholder (user) involvement, and the implementation of prepared procurement plans, influences the effectiveness of public procurement in Dodoma City, Tanzania. Based on previous regulations and research, the following hypothesis can be developed:

H1: Procurement planning has a positive and significant impact on procurement budget effectiveness.

2.2 Procurement Planning and Compliance with Procurement Regulations

According to Presidential Regulation No. 16 of 2018 and its amendments [15], compliance with regulations is one of the areas of supervision in the procurement of goods/services. Sanctions are also stipulated in this Regulation for all procurement actors. This means that Presidential Regulation No. 16 of 2018 and its amendments, along with regulations from heads of institutions and ministers as derivative regulations, are binding and must be complied with. According to LKPP Regulation No. 11 of 2021 [14], concerning guidelines for government procurement planning, procurement planning is the initial step in the procurement process. This regulation aims, among other things, to ensure procurement of goods/services complies with procurement ethics. All parties involved must adhere to these ethics, including: carrying out their duties in an orderly manner, with a sense of responsibility to achieve targets, ensure smooth and accurate procurement objectives. According to [12], the implementation of Goods/Services Procurement regulations ranks highly as an external factor influencing compliance among procurement officials. Procurement planning is one implementation of Goods/Services Procurement regulations. According to [11] procurement planning significantly influences compliance with procurement regulations. Based on regulations and previous research, the following hypothesis can be developed:

H2: Procurement planning has a positive and significant effect on compliance with procurement regulations.

2.3 Human Resources Competence and Procurement Budget Effectiveness

According to [5], increasingly competent human resources at the State Civil Service Agency (BKN) will further improve the quality of goods and services procurement, including increasing the effectiveness of the procurement budget. Human resources are the driving force behind an organization's ability to achieve its goals. According to [6], higher quality human resources increase budget absorption in the Regional Apparatus Organizations (APOs) of Magelang Regency. This occurs because high levels of employee perception, knowledge, motivation, and ability support smooth budget utilization. A sufficient number of employees, a uniform transfer pattern, and the absence of concurrent positions are also supporting human resources factors in successful budget implementation. According to [4], human resources competence significantly influences budget absorption in West Sumbawa Regency. Therefore, it can be concluded that competent employees can make appropriate decisions related to budget allocation, identifying needs, and avoiding waste. Based on previous research, the following hypothesis can be developed:

H3: Human resources competence has a positive and significant effect on procurement budget effectiveness.

2.4 Human Resource Competence and Compliance with Procurement Regulations

According to [13], a person's emotional intelligence significantly influences compliance with goods/services procurement regulations. Emotional intelligence, in this case, encompasses self-awareness, self-regulation, social skills, and empathy, which are internal factors. These factors are similar to competency characteristics, namely motives, traits, and self-concept, which are internal factors. According to [16] and [17], employee competence significantly influences employee performance in the Goods/Services Procurement Work Unit of the Ministry of Environment and Forestry. Performance here is measured by several factors: speed, cost, regulatory compliance, and quality. Based on previous research, the following hypothesis can be developed:

H4: Human Resource Competence has a positive and significant effect on compliance with procurement regulations.

2.5 Compliance with Procurement Regulations and Procurement Budget Effectiveness

According to Presidential Regulation Number 16 of 2018 and its amendments, this presidential regulation was established to establish procurement regulations for goods/services that provide maximum value for money. According to [18], the three main principles of value for money are economy, efficiency, and effectiveness. By adhering to and adhering to Presidential Regulation Number 16 of 2018 and its amendments, along with regulations from heads of institutions and ministers as derivative regulations, it is hoped that maximum value for money can be achieved in the procurement of goods/services. According to [11], compliance with procurement regulations has a positive and significant impact on

value for money in Public Procurement. According to [1], procurement planning through regulatory compliance influences the effectiveness of public procurement in Dodoma City, Tanzania. Based on regulations and previous research, the following hypothesis can be developed:

H5: Compliance with Procurement Regulations has a positive and significant effect on procurement budget effectiveness.

2.6 Procurement Planning, Human Resource Competence, Compliance with Procurement Regulations, and Procurement Budget Effectiveness

According to LKPP Regulation No. 11 of 2021, concerning guidelines for government procurement planning for goods/services, the objective of procurement is to achieve procurement that delivers value for money. One way to achieve this objective is through improving the quality of procurement planning. This regulation serves as a guideline for procurers to implement the procurement planning process in accordance with Presidential Regulation No. 16 of 2018 and its amendments, and therefore must be adhered to. According to [1], compliance with procurement regulations mediates the effect of planning on value for money in public procurement. Based on these regulations and previous research, the following hypotheses can be developed:

H6: Compliance with Procurement Regulations mediates the effect of Procurement Planning on procurement budget effectiveness.

H7: Compliance with Procurement Regulations mediates the effect of Human Resource Competence on procurement budget effectiveness.

3. Method

3.1. Research Type

This study uses a quantitative method by measuring and analyzing the influence of Procurement Planning and HR Competence on procurement budget effectiveness, mediated by compliance with procurement regulations in Tenders and Selection within the Central Java Provincial Government in the 2024 Fiscal Year. This research is explanatory research, aiming to test the causal relationship between variables.

3.2. Research Population and Sample

A population is a generalized area consisting of objects/subjects with certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn [19]. Given the relatively small population size of the Selection Working Group, the Planning PIC Team, and representatives of Regional Apparatus Organizations (OPD), the entire population was sampled: 27 members of the Selection Working Group, 21 members of the Planning PIC Team, and 24 representatives of OPDs, resulting in a total of 72 primary data.

3.3. Research framework

Based on this description, the research framework can be described as follows:

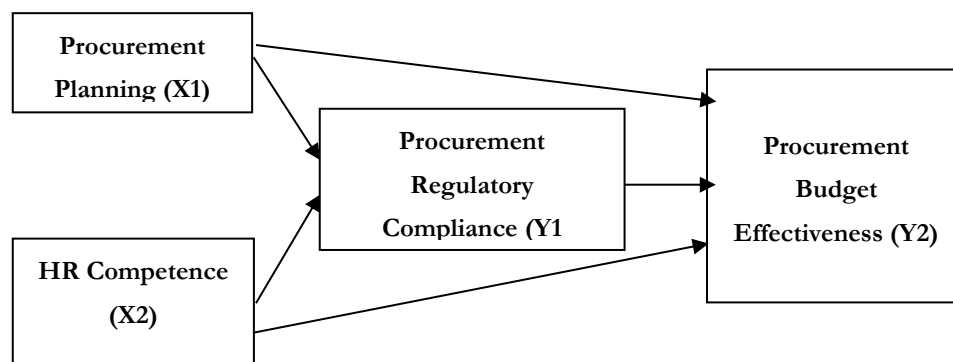


Figure 1. Research Framework Image

3.4. Research Instrument Testing

3.4.1. Validity Testing

Validity testing is used to measure the validity of an indicator in the form of a questionnaire. A questionnaire is considered valid if the questions are able to reveal what it is intended to measure. In this study, the validity test uses factor analysis, namely by examining whether the indicator or questionnaire items used can confirm a factor or construct. If each question is a measuring indicator, it must have a KMO above 0.5 with a significance level of 0.05 and the following test factor loading criteria [20]: A factor loading > the rule of thumb (0.4) indicates validity, and a factor loading < the rule of thumb (0.4) indicates invalidity.

3.4.2. Reliability Testing

A measuring instrument is said to be reliable if it produces relatively similar results when measuring something at different times. Reliability measurement can be done using the Cronbach Alpha coefficient using SPSS For Windows [20] with the following criteria: If the alpha value is > 0.7 then the instrument is reliable and if the alpha value is < 0.7 then the instrument is not reliable.

3.5. Data analysis in this study used:

3.5.1. Descriptive Method

The descriptive method was used to provide an overview of the respondents and research variables, thus providing a basis for further analysis. The analytical tools used here were the sample size (n), minimum, maximum, mean, median, mode, and standard deviation.

3.5.2. Normality Test

The normality test aims to determine whether the dependent and independent variables in a regression model are normally distributed. Data normality testing can be performed using the Kolmogorov-Smirnov test. To determine whether data follows a normal distribution, assess its significance value. If the significance value is >0.05, the variable is normally distributed; conversely, if the significance value is <0.05, the variable is not normally distributed [20].

3.5.3. Classical Assumption Test

3.5.3.1 Multicollinearity Test

Multicollinearity means there is a perfect or definite linear relationship between some or all of the independent variables in the existing model. As a result of this multicollinearity, the regression coefficients are uncertain and their standard errors are infinite. This will create bias in the specification. The multicollinearity test aims to determine whether there is a correlation between the independent variables in the regression model. A good regression model should have no correlation between the independent variables [20].

The method for testing for multicollinearity can be seen from the tolerance value or variance inflation factor (VIF). If the tolerance value is >0.1 or the VIF is less than 10, multicollinearity is not present.

3.5.3.2 Heteroscedasticity Test

Heteroscedasticity testing is a condition where the variance and error confounding factors are not constant for all independent variables. A good regression model does not exhibit heteroscedasticity. The heteroscedasticity test can be performed using the Glejser test, which examines the significance level. This test is conducted to respond to the variable x as an independent variable with the absolute value of the unstandardized regression residual as the dependent variable. If the test result is above the significant level ($t > 0.05$), it means there is no heteroscedasticity, and vice versa, if the level is below the significant level ($t < 0.05$), it means there is heteroscedasticity [20].

3.5.4. Regression Test

3.5.4.1. Linear Regression Analysis

An analysis used to determine the regression equation that shows the similarity between the dependent and independent variables. Formulas used [20]:

To test H1 and H3

Budget Effectiveness =

$\alpha_0 + \beta_1.\text{Procurement Planning} + \beta_2.\text{HR Competence} + \epsilon$

To test H2 and H4

Compliance =

$\alpha_0 + \beta_3.\text{Procurement Planning} + \beta_4.\text{HR Competence} + \epsilon$

To test H5 and H6

Budget Effectiveness =

$$\alpha_0 + \beta_5.\text{Planning} + \beta_6.\text{HR Competence} + \beta_7.\text{Compliance} + \varepsilon$$

Where:

α_0 = Constant

β_1 = Regression coefficient of H1 (Planning on effectiveness)

β_2 = Regression coefficient of H3 (Competence on effectiveness)

β_3 = Regression coefficient of H2 (Planning on compliance)

β_4 = Regression coefficient of H4 (Competence on Compliance)

β_5 = Regression coefficient of H6 (Planning on Effectiveness after Mediation)

β_6 = Regression coefficient of H6 (Competence on Effectiveness after Mediation)

β_7 = Regression coefficient of H5 (Compliance on Effectiveness)

3.5.4.2. Model Testing

- Coefficient of Determination

The coefficient of determination is used to determine the goodness of fit of the independent variables on the dependent variable [20].

- F Test

The F test is used to examine the effect of independent variables on the dependent variable simultaneously or jointly [20] with a significance level (α) of <0.05.

3.5.4.3. Hypothesis Testing

Hypothesis testing uses a t-test with a multiple linear regression model to identify the effect of independent variables on the dependent variable using SPSS [20]. The hypothesis is accepted if the significance level (α) is <0.05.

4. Results and Discussion

Research Instrument Testing

Validity Testing

Validity testing is used to measure the validity of an indicator in the form of a questionnaire. The validity testing of the research variables is shown in the table below:

Table 1. Results of the Research Instrument Validity Test

Variables	KMO	Loading Factor		Information
		Items	Component Matrix ^a	
Procurement Planning (X1)	0,818	X1.1	0,725	Valid
		X1.2	0,902	Valid
		X1.3	0,798	Valid
		X1.4	0,827	Valid
		X1.5	0,804	Valid
		X1.6	0,869	Valid
		X1.7	0,834	Valid
HR Competence (X2)	0,868	X2.1	0,833	Valid
		X2.2	0,964	Valid
		X2.3	0,894	Valid
		X2.4	0,909	Valid
		X2.5	0,925	Valid
		X2.6	0,785	Valid
		X2.7	0,844	Valid
		X2.8	0,941	Valid
		X2.9	0,900	Valid
		X2.10	0,954	Valid
		X2.11	0,790	Valid
	0,779	Y1.1	0,819	Valid

Compliance with Procurement Regulations (Y1)		Y1.2	0,984	Valid
		Y1.3	0,947	Valid
		Y1.4	0,970	Valid
Procurement Budget Effectiveness (Y2)	0,805	Y2.1	0,752	Valid
		Y2.2	0,911	Valid
		Y2.3	0,851	Valid
		Y2.4	0,517	Valid
		Y2.5	0,895	Valid
		Y2.6	0,933	Valid
		Y2.7	0,836	Valid

Source: Processed primary data, 2025

Based on the table above, the KMO and Bartlett's test values for all variables procurement planning, human resource competency, compliance with procurement regulations, and procurement budget effectiveness—met the sample adequacy criteria required for the validity test. A KMO value greater than 0.5 indicates sufficient sample size, allowing the factor test to proceed. The component matrix results show that all indicators in the procurement planning, human resource competency, compliance with procurement regulations, and procurement budget effectiveness variables have the required loading factor, with a matrix component value greater than 0.4, thus validating the instrument.

Reliability Testing

Reliability testing is used to determine the extent to which data can produce relatively consistent results when measured again on the same subjects. It can also be said to indicate a correspondence between what is being measured and the type of measuring instrument used. This reliability test uses the Cronbach's alpha formula. For reliability, if the alpha value is >0.7 , the instrument used is reliable.

Table 2: Reliability Testing of Research Variables

No.	Variables	<i>Alpha Cronbach</i>	Standard Number	Criteria
1	Procurement Planning (X1)	0,912	0,7	Reliabel
2	Human Resources Competence (X2)	0,971	0,7	Reliabel
3	Procurement Regulatory Compliance (Y1)	0,949	0,7	Reliabel
4	Procurement Budget Effectiveness (Y2)	0,919	0,7	Reliabel

Source: Processed primary data, 2025

In the reliability test, the variables procurement planning, HR competency, compliance with procurement regulations, and procurement budget effectiveness are considered reliable because the Cronbach's Alpha is >0.7 , making them suitable for further testing.

Normality Test

The normality test is used to determine whether the regression model for the dependent and independent variables, or both, has a normal distribution. The normality test uses the Kolmogorov-Smirnov test as follows:

Table 3: Results of Normality Test I
The Effect of Procurement Planning and HR Competence
on Procurement Regulatory Compliance
One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	72
Asymp. Sig. (2-tailed)	0,017 ^c

Source: Processed primary data, 2025

Based on Table 3, the initial normality test results for the research variables showed a significance level of $0.017 < 0.05$. Therefore, the regression model was not normally distributed, and a normalization process was performed.

Table 4: Results of Normality Test II
The Effect of Procurement Planning, HR Competence, and Compliance with
Procurement Regulations on Procurement Budget Effectiveness
One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	68
Asymp. Sig. (2-tailed)	0,178 ^c

Source: Processed primary data, 2025

Based on Table 4, it is known that the significance level of the research variable for the normality test II is $0.178 > 0.05$, indicating that the regression model is normally distributed, allowing for further processing.

Classical Assumption Test

Heteroscedasticity

Heteroscedasticity testing is a condition where the variance and error of the confounding variables are not constant for all independent variables. A good regression model is one that does not exhibit heteroscedasticity. The results of the heteroscedasticity test using the Glejser test are as follows:

Table 5. Heteroscedasticity Test Results

Model	Sig.
(Constant)	0,000
Procurement Planning	0,324
Human Resources Competence	0,356
Procurement Regulatory Compliance	0,305

Source: Processed primary data, 2025

Based on the table above, the heteroscedasticity test results show no heteroscedasticity because the significance level of all variables is above 0.05.

Multicollinearity

This test is used to determine the existence of a "perfect" or definite linear relationship between some or all of the independent variables explaining the regression model. A good regression model should have no correlation between the independent variables.

Table 6 Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Procurement Planning	0,806	1,240
Human Resources Competence	0,403	2,482
Procurement Regulatory Compliance	0,374	2,675

Source: Processed primary data, 2025

The table shows that the regression model is free from multicollinearity because the regression coefficients between the independent variables have a tolerance value > 0.1 and a VIF < 10 .

Regression Testing

A test used to determine the influence of independent variables on the dependent variable.

Table 7: Summary of Multiple Linear Regression Test I
The Effect of Procurement Planning and HR Competence on Compliance with Procurement Regulations

No	Variables	b	Sig.	Information
1	The influence of procurement planning on procurement regulatory compliance	0,299	0,000	H2 accepted
2	The influence of HR competency on procurement regulatory compliance	0,744	0,000	H4 accepted
Test Model : Adjusted R Square (R2) = 0,615 F = 54,440 sig. 0,000				

Source: Processed primary data, 2025

Table 8 Summary of Multiple Linear Regression Test II
The Effect of Procurement Planning, Human Resource Competence, and Compliance with Procurement Regulations on Procurement Budget Effectiveness

No	Variables	B	Sig.	Information
1	The influence of procurement planning on procurement budget effectiveness	0,179	0,026	H1 accepted
2	The influence of HR competency on procurement budget effectiveness	0,272	0,017	H3 accepted
3	The influence of procurement regulatory compliance on procurement budget effectiveness	0,554	0,000	H5 accepted
Test Model : Adjusted R Square (R2) = 0,669 F = 46,128 sig. 0,000				

Source: Processed primary data, 2025

Multiple Regression Analysis

The Effect of Procurement Planning and Human Resource Compliance on Compliance with Procurement Regulations

Based on Table 7, the effect of procurement planning and human resource competency on compliance with procurement regulations produces a regression equation of $Y_1 = 0.299 X_1 + 0.744 X_2$. Based on the equation above, it can be seen that procurement planning and human resource competency have a positive influence on compliance with procurement regulations, with regression coefficients of procurement planning = 0.299 and HR

competency = 0.744, respectively. The better the procurement planning and HR competency in an agency, the higher the compliance with procurement regulations.

The Effect of Procurement Planning, Human Resource Compliance, and Compliance with Procurement Regulations on Procurement Budget Effectiveness

Based on Table 8, the effect of procurement planning, human resource competency, and compliance with procurement regulations on procurement budget effectiveness produces a regression equation of $Y_2 = 0.179 X_1 + 0.272 X_2 + Y_1 = 0.554$. Based on the equation above, it can be seen that procurement planning, HR competency, and compliance with procurement regulations have a positive influence on the effectiveness of the procurement budget with regression coefficient values of procurement planning = 0.179; HR competency = 0.272 and compliance with procurement regulations = 0.554, respectively. The better the procurement planning, HR competency, and compliance with procurement regulations in the agency, the more effective the procurement budget.

Model Test

Coefficient of Determination (R²) Test

The Effect of Procurement Planning and HR Competence on Compliance with Procurement Regulations

Based on Table 7, the coefficient of determination (R²), which in this study uses Adjusted R Square, measures the extent to which procurement planning and HR competency variables explain variations in procurement regulatory compliance. The Adjusted R Square coefficient was 0.615. This means that 61.5% of procurement regulatory compliance can be explained by procurement planning and HR competency. The remaining $100\% - 61.5\% = 38.5\%$ is explained by factors other than procurement planning and HR competency.

The Effect of Procurement Planning, HR Competence, and Compliance with Procurement Regulations on Procurement Budget Effectiveness

Based on Table 8, the coefficient of determination (R²) in this study uses Adjusted R Square to measure the extent to which the variables procurement planning, HR competency, and compliance with procurement regulations explain variations in the financial accountability variable. The Adjusted R Square coefficient is 0.669. This means that 66.9% of procurement budget effectiveness can be explained by procurement planning, HR competency, and compliance with procurement regulations. The remaining $100\% - 66.9\% = 33.1\%$ is explained by factors other than procurement planning, HR competency, and compliance with procurement regulations.

F-Test

The F-test was conducted to test the suitability of the model used for the analysis. The model is considered fit if the F-value is less than 0.05.

The Effect of Procurement Planning and Human Resource Competence on Compliance with Procurement Regulations

Based on Table 7, the procurement planning and human resource competency variables included in the model simultaneously influence compliance with procurement regulations. The calculated F-value is 54.440, with a significance level of $0.000 < 0.05$, indicating that procurement planning and human resource competency on compliance with procurement regulations, or the regression equation model, are considered fit.

The Effect of Procurement Planning, Human Resource Competence, and Compliance with Procurement Regulations on Procurement Budget Effectiveness

Based on Table 8, the procurement planning, human resource competency, and compliance with procurement regulations variables included in the model simultaneously influence procurement budget effectiveness. The calculated F-value is 46.128, with a significance level of $0.000 < 0.05$, indicating that procurement planning, human resource competency, and compliance with procurement regulations simultaneously influence procurement budget effectiveness, or the regression equation model is considered fit.

Hypothesis Testing

Hypothesis testing uses a partial t-test to examine the effect of the independent variable on the dependent variable, with a significance level of 0.05.

The Effect of Procurement Planning on Procurement Budget Effectiveness

Based on the results of the regression test in Table 8, procurement planning influences procurement budget effectiveness with a regression coefficient of 0.179 and a significance level of $0.026 < 0.05$. Therefore, partially (individually), there is a positive and significant effect

on procurement budget effectiveness. Therefore, the first hypothesis (H1): Procurement planning has a positive and significant effect on procurement budget effectiveness, is accepted.

The Effect of Procurement Planning on Procurement Regulation Compliance

Based on the results of the regression test in Table 7, procurement planning influences procurement regulation compliance with procurement regulations with a regression coefficient of 0.299 and a significance level of $0.000 < 0.05$. Therefore, partially (individually), there is a positive and significant effect on procurement regulation compliance. Therefore, the second hypothesis (H2): Procurement planning has a positive and significant effect on procurement regulatory compliance, is accepted.

The Influence of Human Resource Competence on Procurement Budget Effectiveness

Based on the results of the regression test in Table 8, it is revealed that Human Resource Competence influences procurement budget effectiveness with a regression coefficient of 0.272 and a significance level of $0.017 < 0.05$. Therefore, partially (individually), there is a positive and significant effect on procurement budget effectiveness. Therefore, the third hypothesis (H3): Human Resource Competence has a positive and significant effect on procurement budget effectiveness, is accepted.

The Influence of Human Resource Competence on Procurement Regulatory Compliance

Based on the results of the regression test in Table 7, it is revealed that Human Resource Competence influences procurement regulatory compliance with a regression coefficient of 0.744 and a significance level of $0.000 < 0.05$. Therefore, partially (individually), there is a positive and significant effect on procurement regulatory compliance. Therefore, the fourth hypothesis (H4): Human resource competency has a positive and significant effect on procurement regulatory compliance, and can be accepted.

The effect of procurement regulatory compliance on procurement budget effectiveness

Based on the results of the regression test in Table 8, compliance with procurement regulations has an effect on procurement budget effectiveness, with a regression coefficient of 0.554 and a significance level of $0.000 < 0.05$. Therefore, partially (individually), there is a positive and significant effect on procurement budget effectiveness. Therefore, the fifth hypothesis (H5): Compliance with procurement regulations has a positive and significant effect on procurement budget effectiveness, and can be accepted.

Test i Sobel

The Sobel test is a test to determine whether a relationship through a mediating variable significantly mediates the relationship. For example, the influence of X on Y is through M. In this case, variable M is the mediator of the relationship from X to Y. To test the extent to which variable M mediates the influence of X on Y, the Sobel test is used. If the significance level Z is < 0.05 , the variable can be said to mediate the relationship between the independent variable and the dependent variable.

Table 9 Mediation Test Using the Sobel Test

No	Mediation	Z Count	Sig.	Information
1	The influence of procurement planning on procurement budget effectiveness is mediated by compliance with procurement regulations.	2,2206	0,0264	H6 : mediation
2	The influence of HR competency on procurement budget effectiveness is mediated by compliance with procurement regulations.	5,0777	0,0000	H7 : mediation

Source: Processed primary data, 2025

The effect of procurement planning on procurement budget effectiveness is mediated by compliance with procurement regulations.

Based on the results of the study, calculations using the Sobel Test revealed a calculated Z-value of 2.2206 with a significance level of $0.0264 < 0.05$, indicating that compliance with procurement regulations mediates the effect of procurement planning on procurement budget effectiveness. Therefore, the sixth hypothesis (H6): Compliance with Procurement

Regulations mediates the effect of Procurement Planning on procurement budget effectiveness, is accepted.

The effect of HR competency on procurement budget effectiveness is mediated by compliance with procurement regulations.

Based on the results of the study, calculations using the Sobel Test revealed a calculated Z-value of 5.0777 with a significance level of $0.0000 < 0.05$, indicating that compliance with procurement regulations mediates the effect of HR competency on procurement budget effectiveness. Therefore, the seventh hypothesis (H7): Compliance with Procurement Regulations mediates the effect of HR competency on procurement budget effectiveness, is accepted.

Discussion

The results of this study, conducted to determine the effect of procurement planning and human resource competency on procurement budget effectiveness, mediated by compliance with procurement regulations during Tenders and Selection within the Central Java Provincial Government for the 2024 Fiscal Year, are as follows:

The Effect of Procurement Planning on Procurement Budget Effectiveness

Based on the regression test results, the first hypothesis (H1): Procurement planning has a positive and significant effect on procurement budget effectiveness, is accepted. These results support previous research conducted by [7], which found that budget planning has a positive and significant effect on budget absorption. Budget planning is a factor that urgently needs to be improved to maximize budget absorption or budget effectiveness. According [7], budget planning has a positive and significant effect on budget absorption. Budget planning is a factor that urgently needs to be improved to maximize budget absorption or budget effectiveness. According to LKPP Regulation No. 11 of 2021, it is stated that the regulation concerning guidelines for government procurement of goods/services planning is intended to ensure procurement of goods/services in accordance with the objectives, policies, principles, and ethics of goods/services procurement. In accordance with Presidential Regulation Number 16 of 2018 and its amendments (Presidential Regulation No. 12, 2021), the principles of procurement of goods/services are efficient, effective, transparent, open, competitive, fair and accountable.

The Influence of Procurement Planning on Compliance with Procurement Regulations

Based on the research results, the second hypothesis (H2): Procurement planning has a positive and significant effect on compliance with procurement regulations, and is accepted. These results support previous research conducted by [11], which found that Procurement Planning significantly influences compliance with procurement regulations. According to Presidential Regulation Number 16 of 2018 and its amendments, compliance with regulations is one of the areas covered by the supervision of goods/services procurement. Sanctions are also stipulated in the regulation for all procurement actors. This means that Presidential Regulation Number 16 of 2018 and its amendments, along with regulations from heads of institutions and ministers as derivative regulations, are binding and must be complied with. According to LKPP Regulation No. 11 of 2021, concerning guidelines for government goods/services procurement planning, procurement planning is the initial step in the procurement process. This regulation aims, among other things, to realize the procurement of goods/services in accordance with the ethics of procurement of goods/services where all parties involved must comply with ethics, including: carrying out tasks in an orderly manner, accompanied by a sense of responsibility to achieve targets, smoothness and accuracy of procurement objectives. According to [12] the implementation of Procurement of Goods/Services regulations has a high score as an external factor that influences the compliance of procurement officials. Procurement Planning is one of the implementations of the implementation of Procurement of Goods/Services regulations.

The Influence of Human Resource Competence on Procurement Budget Effectiveness

Based on the research results, the third hypothesis (H3): Human resource competence has a positive and significant effect on procurement budget effectiveness, and is accepted. These results support previous research conducted by [4], which found that human resource competence significantly influences budget absorption in West Sumbawa Regency. Therefore, it can be concluded that competent employees can make appropriate decisions related to budget allocation, identifying needs, and avoiding waste. According to [5], increasingly

competent human resources at the State Civil Service Agency (BKN) will further improve the quality of goods and services procurement, including increasing the effectiveness of the procurement budget. Human resources are the driving force behind an organization's ability to achieve its goals. According to [6], higher quality human resources increase budget absorption in the Regional Apparatus Organizations (APOs) of Magelang Regency. This occurs because high levels of employee perception, knowledge, motivation, and ability support smooth budget utilization. A sufficient number of employees, a uniform transfer pattern, and the absence of concurrent positions are also supporting factors for successful budget implementation.

The Influence of Human Resource Competence on Procurement Regulation Compliance

Based on the research results, the fourth hypothesis (H4): Human Resource Competence has a positive and significant effect on procurement regulation compliance, and is accepted. These results support previous research conducted by [16] and [17], which found that Employee Competence significantly influences employee performance in the Goods/Services Procurement Work Unit of the Ministry of Environment and Forestry. Performance here is seen from several factors: speed, cost, regulatory compliance, and quality. According to [13], a person's emotional intelligence significantly influences compliance with goods/services procurement regulations. Emotional intelligence, in this case, encompasses self-awareness, self-regulation, social skills, and empathy, which are internal factors. These factors are similar to competency characteristics, namely motives, traits, and self-concept, which are internal factors.

The Effect of Compliance with Procurement Regulations on Procurement Budget Effectiveness

Based on the research results, the fifth hypothesis (H5): Compliance with procurement regulations has a positive and significant effect on procurement budget effectiveness, and is accepted. These results support previous research conducted by (Changalima et al., 2020), which found that procurement planning through regulatory compliance influences the effectiveness of public procurement in Dodoma City, Tanzania. In accordance with Presidential Regulation Number 16 of 2018 and its amendments, this presidential regulation was established to realize procurement regulations that provide maximum benefits (value for money). According to [18], the three main principles of value for money are economy, efficiency, and effectiveness. By adhering to Presidential Regulation Number 16 of 2018 and its amendments, along with regulations from heads of institutions and ministers as derivative regulations, it is hoped that maximum benefits can be achieved in the procurement of goods/services.

The influence of procurement planning on procurement budget effectiveness is mediated by compliance with procurement regulations.

Based on the results of the study, calculated using the Sobel Test, the sixth hypothesis (H6): Compliance with Procurement Regulations mediates the influence of Procurement Planning on procurement budget effectiveness, is accepted. Therefore, procurement planning is more effective through compliance with procurement regulations rather than directly on procurement budget effectiveness because the indirect effect is greater than the direct effect.

The influence of HR competency on procurement budget effectiveness is mediated by compliance with procurement regulations.

Based on the results of the study, calculations using the Sobel Test revealed the seventh hypothesis (H7): Compliance with Procurement Regulations mediates the influence of HR competency on procurement budget effectiveness, which is acceptable. Therefore, HR competency is more effective through compliance with procurement regulations rather than directly on procurement budget effectiveness because the indirect effect is greater than the direct effect.

5. Conclusion

Conclusion

Based on the research findings on the influence of procurement planning and human resource competency on procurement budget effectiveness, mediated by compliance with procurement regulations at Tender and Selection agencies within the Central Java Provincial Government for the 2024 Fiscal Year, the following conclusions can be drawn: Procurement planning has a positive and significant effect on procurement budget effectiveness. Better procurement planning will increase procurement budget effectiveness. Procurement planning has a positive and significant effect on compliance with procurement regulations. Better procurement planning will increase compliance with procurement regulations. Human resource competency has a positive and significant effect on procurement budget effectiveness. Higher/better HR competency will increase procurement budget effectiveness. Human resource competency has a positive and significant effect on compliance with procurement regulations. Higher/better HR competency will increase compliance with procurement regulations. Compliance with procurement regulations has a positive and significant effect on procurement budget effectiveness. Higher/better compliance with procurement regulations will increase procurement budget effectiveness. Compliance with Procurement Regulations mediates the effect of Procurement Planning on procurement budget effectiveness. Compliance with Procurement Regulations mediates the influence of HR competency on procurement budget effectiveness.

Implications

Theoretical Implications

Procurement planning has a positive and significant impact on procurement budget effectiveness. In other words, the better the procurement planning in an organization, the more effective the procurement budget will be. Procurement planning is the process of identifying, planning, and scheduling the procurement of goods/services to meet the needs of an organization or agency, whether government or private. The goal is to ensure procurement is effective, efficient, and in accordance with the budget and applicable regulations.

Procurement planning has a positive and significant impact on procurement regulatory compliance. In other words, the better the procurement planning, the better the compliance with procurement regulations. Procurement planning is one implementation of regulations in the form of rules for the procurement of goods/services.

Human Resource Competence has a positive and significant impact on procurement budget effectiveness. In other words, the higher/better the HR competency, the more effective the procurement budget will be. Human Resource Competence (HRC) is the combination of knowledge, skills, attitudes, and behaviors that individuals possess to carry out their duties and responsibilities effectively, productively, and in accordance with organizational needs.

HRC Competence has a positive and significant impact on procurement regulatory compliance. In other words, the higher/better the competency of human resources, the greater the likelihood of compliance with procurement regulations. Procurement regulatory compliance is a condition in which the entire procurement process for goods/services complies with applicable laws and regulations, including laws, regulations, standards, and other rules established by the government or relevant agencies. This compliance encompasses all stages of procurement, from planning and supplier selection, contract implementation, to handover of work.

Compliance with procurement regulations has a positive and significant impact on procurement budget effectiveness. In other words, the higher/better compliance with procurement regulations, the greater the effectiveness of the procurement budget. Procurement budget effectiveness refers to the extent to which the budget allocated for the procurement of goods and services successfully achieves its intended objectives cost-effectively. This involves thorough planning, efficient implementation, and ongoing evaluation to ensure that every dollar spent adds value and supports the achievement of organizational goals.

Managerial Implications

Based on the research findings, several managerial policies can be suggested as follows:

The variable of compliance with procurement regulations has the greatest influence on procurement budget effectiveness, as seen from its regression coefficient and as a mediating variable. Therefore, the Tender and Selection Agency within the Central Java Provincial Government in the 2024 Fiscal Year needs to maintain and even further improve compliance with procurement regulations. This is reflected in the lowest indicator, according to respondents' responses. This is reflected in the knowledge of the PPK and UKPBJ (Goods/Services Procurement Work Unit) regarding procurement regulations and procedures. This plays a significant role in influencing compliance with procurement regulations.

The variable of procurement planning has the lowest influence on procurement budget effectiveness, as seen from its regression coefficient. Therefore, the Tender and Selection Agency within the Central Java Provincial Government in the 2024 Fiscal Year needs to further improve procurement planning. This is reflected in the lowest indicator, according to respondents' responses. This is reflected in the increased involvement of the PPK (Commitment Making Officer) in identifying procurement of goods/services at the Component/Sub-Component level in the RKA K/L (Work Plan and Budget). Ministry/Institution) or Sub-activities in the RKA PD (Regional Government Work Plan and Budget) where there is an account for procurement of goods/services based on assignments from PA/KPA (Budget User/Budget User Authority).

Research Limitations

The limitations of this study include:

The study only involved employees in the Tender and Selection Agency within the Central Java Provincial Government for the 2024 Fiscal Year. Therefore, future research should expand the research object to reflect the overall accuracy of the research data.

Many variables can influence procurement budget effectiveness. This study only examined two independent variables: procurement planning and HR competency. Compliance with procurement regulations was the mediating variable.

Future Research Agenda

Based on the results of this study, the following suggestions for future research are presented: The research sample needs to be expanded beyond employees in the Tender and Selection Agency within the Central Java Provincial Government for the 2024 Fiscal Year. This allows for generalizability of the research findings regarding the influence of procurement research planning and HR competency on procurement budget effectiveness mediated by compliance with procurement regulations.

Many other factors can influence procurement budget effectiveness, so future may require additional variables, including budget transparency, internal control, and budget accountability.

Reference

- Adriansyah, A., Alexandri, M. B., & Halimah, M. (2021). Implementasi kebijakan perencanaan pengadaan barang dan jasa pemerintah di Dinas Kesehatan Kabupaten Bandung. *Responsive*, 4(1), 13. <https://doi.org/10.24198/responsive.v4i1.34108>
- Agustina, N. D. (2019). Faktor-faktor yang mempengaruhi kepatuhan aparatur pemerintah atas prosedur pengadaan barang/jasa. *Jurnal Manajemen dan Inovasi*, 2(2), 12–30. <https://doi.org/10.15642/manova.v2i2.188>
- Changalima, I. A., Ismail, I. J., & Mwaiseje, S. S. (2022). Obtaining the best value for money through procurement planning: Can procurement regulatory compliance intervene? *Journal of Money and Business*, 2(2), 133–148. <https://doi.org/10.1108/jmb-11-2021-0056>
- Changalima, I. A., Mushi, G. O., & Mwaiseje, S. S. (2020). Procurement planning as a strategic tool for public procurement effectiveness: Experience from selected public procuring entities in Dodoma city, Tanzania. *Journal of Public Procurement*, 21(1), 37–52. <https://doi.org/10.1108/JOPP-05-2020-0047>
- Chikwere, G. U., Dzandu, S. S. K., & Dza, M. (2019). Compliance issues with public procurement regulations in Ghana. *International Journal of Business and Management*, 14(5), 1. <https://doi.org/10.5539/ijbm.v14n5p1>

- Diyan, M., Subagja, I. K., & Hakim, A. (2024). Pengaruh pemanfaatan e-purchasing dan kompetensi terhadap kinerja pegawai pengadaan barang/jasa di Unit Kerja Pengadaan Barang/Jasa (UKPBJ) Kementerian Lingkungan Hidup dan Kehutanan. *Jurnal Sosial dan Teknologi*, 4(11), 1001–1009. <https://doi.org/10.59188/jurnalsostech.v4i11.31734>
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25* (Edisi 9). Semarang: Badan Penerbit Universitas Diponegoro.
- Gumilang, R., Subagja, I. K., & Hakim, A. (2024). Pengaruh kompetensi dan pelatihan terhadap peningkatan kinerja pegawai di unit kerja pengadaan barang dan jasa di Kementerian Lingkungan Hidup dan Kehutanan. *Jurnal Ekonomi, Manajemen dan Sistem Informasi*, 6(2), 749–757. <https://doi.org/10.38035/jemsi.v6i2.3257>
- Hidayat, A. (2019). Evaluasi perencanaan umum pengadaan barang/jasa pemerintah pada Universitas Brawijaya. *Jurnal Ilmiah Administrasi Publik*, 5(1), 97–105. <https://doi.org/10.21776/ub.jiap.2019.005.01.12>
- Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah. (2021). *Peraturan LKPP Nomor 11 Tahun 2021*. <https://jdih.lkpp.go.id/regulation/peraturan-lkpp/peraturan-lkpp-nomor-11-tahun-2021>
- Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah. (2021). *Peraturan Presiden Nomor 12 Tahun 2021*.
- Lestari, L., & Yuliani, N. (2022). Pengaruh perencanaan anggaran, pelaksanaan anggaran, kualitas sumber daya manusia, pengadaan barang/jasa dan komitmen organisasi terhadap penyerapan anggaran belanja. *Business and Economic Conference on Utilization of Modern Technology*, 1–16. <https://journal.unimma.ac.id>
- Maturbongs, L., Supriyantono, A., & Baransano, M. A. (2024). Tingkat kepatuhan pejabat pengadaan pada peraturan pengadaan barang dan jasa terhadap kegiatan pengadaan barang publik di Provinsi Papua Barat. *Cassowary*, 7(2). <https://doi.org/10.30862/cassowary.cs.v7.i2.182>
- Mrope, N. P., Namusonge, G. S., & Iravo, M. (2017). Does compliance with rules ensure better? An assessment of the effect of compliance with procurement legal and regulatory framework on performance of public procurement in Tanzania. *European Journal of Logistics, Purchasing and Supply Chain Management*, 5(1), 40–50. <http://www.eajournals.org>
- Prameswari, M., Safitri, R., Karima, N., & Gunawan, A. (2024). Analisis kinerja keuangan sektor publik dengan pendekatan value for money di Kota Pekalongan (Tahun 2021–2022). *Jurnal Ekonomi, Manajemen, Akuntansi dan Keuangan*, 6, 13. <https://doi.org/10.53697/emak.v6i1.2014>
- Rahayu, N. M., & Isnawati, S. (2024). Pengaruh kualitas sumber daya manusia, perencanaan anggaran, pelaksanaan anggaran, pengadaan barang dan jasa dan pencatatan administrasi terhadap penyerapan APBD pemerintah Provinsi Jawa Tengah. *Costing: Journal of Economic, Business and Accounting*, 7(5), 830–845. <https://doi.org/10.31539/costing.v7i5.11616>
- Sarawa, D. I., & Mas'ud, A. (2020). Strategic public procurement regulatory compliance model with mediating effect of ethical behavior. *Heliyon*, 6(1), e03132. <https://doi.org/10.1016/j.heliyon.2019.e03132>
- Sugiyono. (2010). *Metode penelitian kuantitatif, kualitatif, dan R&D* (Edisi 11). Bandung: Alfabeta.
- Sulcat, R., Yamin, A., & Ananda, N. A. (2024). Pengaruh perencanaan anggaran, kompetensi SDM, dan pengadaan barang dan jasa terhadap tingkat penyerapan anggaran pengadaan barang dan jasa pemerintah daerah (Studi empiris pada organisasi perangkat daerah KSB). *JIIIP: Jurnal Ilmiah Ilmu Pendidikan*, 7(11), 12964–12974. <https://doi.org/10.54371/jiip.v7i11.6165>
- Tsani, F., & Yanti, H. (2022). Analisis pengaruh kompetensi sumber daya manusia dan pengendalian intern terhadap kualitas pengadaan barang dan jasa di lingkungan Badan Kepegawaian Negara. *Jurnal Sosial dan Teknologi*, 2(9), 773–784. <https://doi.org/10.59188/jurnalsostech.v2i9.410>