

**ANALYSIS OF THE INFLUENCE OF CONTRACTOR CAPABILITY AND EXTERNAL  
PROJECT FACTORS ON PROJECT PERFORMANCE  
(Case Study of Bengkulu City Hall Construction)**

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**ABSTRACT**

This study investigates the partial and simultaneous effects of Contractor Capabilities and External Project Factors on Project Performance in the Bengkulu City Hall Construction Project. A quantitative approach was employed using multiple linear regression analysis. The study applied total sampling, with 84 workers directly involved in the project serving as respondents. The results indicate that: (1) Contractor Capabilities significantly influence Project Performance, with a positive regression coefficient, suggesting that higher contractor capabilities lead to better project outcomes, while lower capabilities reduce performance; (2) External Project Factors also have a significant positive effect, indicating that supportive external conditions enhance overall project performance; and (3) Together, Contractor Capabilities and External Project Factors explain 84% of the variance in Project Performance, with the remaining 16% accounted for by other unobserved factors. These findings highlight the importance of enhancing contractor management quality and managing external risks as key strategies to improve construction project performance, especially within local government contexts.

**Keywords:** Contractor Capabilities, External Project Factors, Project Performance, Construction

## INTRODUCTION

The construction industry is one of the fastest-growing industries in Indonesia and holds significant potential. Construction project development involves multiple parties, various processes, different phases, and stages of work, as well as input from both the government and private sectors, with the ultimate goal of project success (Takim & Akintoye, 2002). Construction projects are largely unique due to customization. No two projects are alike, as each project adapts the workplace environment to specific functions, designs, or preferences. Construction is a complex system due to the involvement of many parties from the pre-contract to the post-contract stages of the construction process. This can lead to issues that will impact project completion (Kiew, Ismail, & Yusof, 2013).

A report from Waseso (2025), citing the Deputy Chairman of the Indonesian Chamber of Commerce and Industry (Kadin), stated that the infrastructure sector is expected to grow by 7.5 percent by 2025. In 2025, the Indonesian government allocated Rp 400.3 trillion in infrastructure funding through the State Budget (APBN). This figure represents a decrease of approximately 5.29% compared to the 2024 budget of IDR 422.7 trillion. Furthermore, a report from Research and Market (2025) stated that construction industry players are quite optimistic about the construction industry projections across various sectors in 2025.

This optimism also stems from overall business optimism in the post-pandemic era, where construction industry players can move more freely to execute their projects (Waseso, 2022). Specifically, the National Capital City (IKN) project has also served as a lever for boosting industry optimism, particularly among the construction industry (Rambey et al., 2021).

The construction industry represents one of the most influential economic activities globally, particularly in the context of developing countries (Chang et al., 2018). The construction industry is crucial to a country's development process (Yu and Yang, 2016; Olanrewaju, 2017), where its success determines the country's economic growth and stability (Xu et al., 2021). In the Indonesian context, the construction industry ranks fourth

in terms of contribution to Indonesia's GDP (BPS, 2022). This data aligns with research by Ghisellini et al. (2018), Muljianto (2021), and Nugraheni et al. (2021), which states that a competitive construction industry will naturally impact regional economic growth, which ultimately impacts the economy of the country.

The significant contribution of the construction industry in Indonesia creates conditions where challenges and declines in the industry will impact the overall economy. First, the construction industry directly plays a role in absorbing labor, both directly and indirectly, within a country (Kabirifar, 2019). Second, the competitive performance of the construction industry will play a role in increasing a country's economic competitiveness, whether through infrastructure development that contributes to the economy (Alvarez et al., 2017) or through consumption and productivity generated by the industry itself (Guerrero et al., 2014).

The post-pandemic economic recovery trend creates a competitive environment where companies need to understand the factors influencing business success to enhance their capabilities (Ebekozi et al., 2021). The construction industry, which contributes significantly to other sectors, needs to identify business success factors to create benefits for the broader economy (Kapelko et al., 2015; Pellicer et al., 2015). These factors will ultimately be implemented to improve the construction industry's capabilities, ultimately creating the ability to innovate (Zubizarretta et al., 2017).

A construction project is an activity of constructing facilities and infrastructure that involves various parties/stakeholders from the planning stage to implementation. Stakeholder involvement at every stage of the project—Initiating, Planning, Executing, Monitoring and Controlling, and Closing—demonstrates the complexity of construction projects (Project Management Institute, 2015). The complexity of construction projects, including work processes, scheduling, resources, permits, materials, communications, and so on, often gives rise to disputes and issues that impact project performance (Kiew, Ismail & Yusof, 2013).

Performance is related to many factors, including time, cost, quality, client satisfaction, productivity, and safety (Abushaban, 2008). However, cost, time, and quality are still relevant for measuring the success of construction projects (Stojcetovic et al., 2014). Cost, time, and quality are a unified whole, known as the "Triangle Constraint," where changes to one factor will impact the others. According to Abushaban (2008), construction project failure is closely related to performance issues and failures. Furthermore, numerous reasons and factors contribute to construction project failure. Many construction projects fail in terms of time, quality, cost, and other performance indicators. The success of a construction project depends heavily on performance.

One of the key factors determining project performance is contractor capability, which includes experience, technical skills, resource management, and an understanding of applicable regulations. A highly capable contractor can manage projects more efficiently, reduce the risk of delays, and improve the quality of the final project outcome. However, without the support of external factors, contractor capability alone is insufficient to guarantee project success.

External project factors, such as economic factors, government regulations, weather conditions, and the availability of materials and labor, also play a significant role in determining construction project performance. For example, unexpected changes in material prices or supply constraints can lead to project delays and increased costs. Furthermore, stringent regulations and complex permitting procedures can hinder timely project completion. Therefore, the contractor's ability to adapt to changing external factors is crucial in maintaining optimal project performance.

Bengkulu City Hall, as one of the implementing agencies for regional development, faces various issues that directly impact project performance, particularly in terms of time, cost, and quality. One of the main issues frequently encountered is project completion delays. Many projects are not completed on time due to weak planning, delays in material procurement, and a lack of

field supervision. Furthermore, the quality of work in the field often does not meet the specified technical specifications, leading to complaints from users and reducing the lifespan of the infrastructure being built. These problems are closely linked to the low capabilities of local contractors, who often lack the experience, managerial skills, or technical capacity to manage projects effectively. Furthermore, these projects are also hampered by external factors such as extreme weather, fluctuating material prices, limited supply of building materials, and slow permitting processes and government bureaucracy. Weak coordination between relevant parties, including contractors, supervising consultants, and government agencies, contributes to worsening conditions on the ground. The accumulation of these various problems led to poor overall project performance, which not only disrupted the smooth progress of infrastructure development but also undermined public trust in the implementation of local government projects.

Based on the challenges faced by the Bengkulu City Hall Project, namely that project performance did not meet plans, the researchers were interested in conducting further research entitled "Analysis of the Influence of Contractor Capabilities and External Project Factors on Project Performance (Case Study of Bengkulu City Hall Construction)."

## METHOD

The research methods used in this study are descriptive and verification. The descriptive method is a method used to describe the condition or value of one or more variables independently, while the verification method can be interpreted as research conducted on a specific population or sample with the aim of testing a predetermined hypothesis. (6)

### Uji Regresi Linier Berganda

In this study, to determine the influence of Contractor Capabilities, External Factors, and Information Systems on Project Performance, a multiple regression analysis technique will be employed. This analytical tool measures the effect of more than one independent variable on a dependent variable as a predictor. The equation model is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Source: Sugiyono (2021:258)

Where:

Y = dependent variable (Project Performance)

$X_1$  = independent variable (Contractor Capabilities)

$X_2$  = independent variable (External Factors)

$\alpha$  = value of Y when X = 0

$\beta$  = multiple linear regression coefficient

e = residual

Correlation Coefficient Analysis

Correlation is a unidirectional relationship between the causal or influencing data, called

the independent variable (typically denoted by X), and the affected data, called the dependent variable (typically denoted by Y). The formula used is as follows:

$$R = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

According to Sugiyono (2021:250), the guidelines for interpreting the correlation coefficient are as follows:

Table 3.4 Interpretation of Correlation Coefficient

Interval Koefisien	Relationship Level
0,00 – 0,199	Very Low
0,20 – 0,399	Low
0,40 – 0,599	Moderate
0,60 – 0,799	Strong
0,80 – 1,000	Very Strong

Source: Sugiyono (2021:250)

Determination Coefficient Analysis ( $R^2$ )

The determination coefficient, according to Sugiyono (2013:241), represents the ability of variable X (independent variable) to influence variable Y (dependent variable). The higher the determination coefficient, the better X explains Y. The formula for the determination coefficient is as follows:

$$KD = r^2 \times 100\%$$

Where:

KD = Determination Coefficient

r = Correlation Coefficient

Hypothesis Testing

The hypothesis testing in this study uses t-tests and F-tests.

t-Test

According to Anderson et al. (2014:699), "t test is conducted for each of the independent variables in the model." The t-test is performed to determine the individual effect of each independent variable on the dependent variable. The hypotheses are formulated as follows:

Hypothesis 1

$H_0$ :  $\beta_1 = 0$ , meaning there is no significant effect of Contractor Capabilities on Construction Project Performance.

$H_a$ :  $\beta_1 \neq 0$ , meaning there is a significant effect of Contractor Capabilities on Construction Project Performance.

Hypothesis 2

$H_0$ :  $\beta_2 = 0$ , meaning there is no significant effect of External Project Factors on Construction Project Performance.

$H_a$ :  $\beta_2 \neq 0$ , meaning there is a significant effect of External Project Factors on Construction Project Performance.

The significance level is set at  $\alpha = 0.05$  (5%).

The t-value is calculated using the formula:

$$t = \frac{\text{Regression Coefficient}}{\text{Standard Deviation}}$$

Testing criteria:

$H_0$  is accepted and  $H_a$  is rejected if the significance value  $> 0.05$  or t-calculated  $< t$ -table, meaning the independent variable does not significantly affect the dependent variable.  $H_0$  is rejected and  $H_a$  is accepted if the significance value  $< 0.05$  or t-calculated  $> t$ -table, meaning the independent variable significantly affects the dependent variable.

F-Test (Statistical Test for Model Accuracy)

The F-test is used to evaluate the overall fit of the model. According to Anderson et al. (2014:699), "the f test is used to determine whether a significant relationship exists between the dependent variable and the set of all the independent variables." A model is considered fit for hypothesis testing if there is a significant effect of the independent variables on the dependent variable simultaneously.

The two-tailed hypothesis is formulated as follows:

$H_0: \beta_1 = \beta_2 = 0$ , meaning there is no simultaneous significant effect of Contractor Capabilities and External Project Factors on Construction Project Performance.

$H_a: \beta_1 \neq \beta_2 \neq 0$ , meaning there is a simultaneous significant effect of Contractor Capabilities and External Project Factors on Construction Project Performance. The significance level is set at 0.05 ( $\alpha = 5\%$ ). The F-value is calculated as follows:

$$F = \frac{R^2 / (k-1)}{(1-R^2)/(n-k)}$$

Where:

$R^2$  = Determination Coefficient

n = Number of Observations

k = Number of Variables

Testing criteria:

$H_0$  is accepted and  $H_a$  is rejected if the significance value  $> 0.05$  or F-calculated  $< F$ -table, meaning the independent variables collectively do not significantly affect the dependent variable.

$H_0$  is rejected and  $H_a$  is accepted if the significance value  $< 0.05$  or F-calculated  $> F$ -table, meaning the independent variables collectively significantly affect the dependent variable.

#### 4.1.1 RESULTS AND DISCUSSION

##### 4.1.2 Research Instrument Testing

Before further analysis of the questionnaire responses, the data instrument used was tested using validity and reliability tests. Validity testing is used to assess the validity of a questionnaire. Validity is achieved if the calculated r value is greater than the table r value (0.2146), indicating that the question items adequately capture the research variables being measured. The reliability test in this study used the Cronbach's alpha formula, calculated using SPSS with a minimum threshold of 0.7, indicating that the measuring instrument is accurate, stable, and reliable.

The validity test results showed that the validity index value for each question item on the Contractor Capability, Project External Factors, and Project Performance variables, as measured by the product-moment correlation, was above the valid coefficient value of 0.2146. Therefore, each question was declared valid. Meanwhile, the reliability values of the questionnaire items for the three variables above showed a Cronbach's alpha value greater than 0.70. These results indicate that the questionnaire items for the Contractor Capability, Project External Factors, and Project Performance variables can measure their respective variables and can be considered to have high accuracy for use as research variables.

##### 4.1.3 Data Quality Testing

To determine the influence of Contractor Capability and Project External Factors on Project Performance, a multiple regression analysis was conducted. However, before conducting the regression analysis, several assumptions must be met, namely the Normality, Heteroscedasticity, and Multicollinearity Tests. The classical assumption test is performed before developing the regression model to ensure that the resulting regression model produces estimates that meet the BLUE (best linear unbiased estimate) criteria.

##### a. Normality

Normality testing can be performed using a statistical test, namely the Kolmogorov-Smirnov test. If the probability value (Asymp. Sig.) obtained is greater than 0.05, it can be concluded that the residuals in the regression model are normally distributed. By using SPSS 25, the results of the Kolmogorov-Smirnov (K-S) test were as follows:

Table 4.14 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		84
Normal Parameters <sup>a,b</sup>	Mean	.0000000

		Std. Deviation	5.97420057
Most Extreme Differences	Absolute		.080
	Positive		.045
	Negative		-.080
Test Statistic			.080
Asymp. Sig. (2-tailed) <sup>c</sup>			.200 <sup>d</sup>
Monte Carlo Sig. (2-tailed) <sup>e</sup>	Sig.		.201
	99% Confidence Interval	Lower Bound	.190
		Upper Bound	.211
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			
d. This is a lower bound of the true significance.			
e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 334431365.			

Source: Data Processing with SPSS 25, 2025

Based on Table 4.14, the Kolmogorov-Smirnov test shows that the significance value of 0.200 is greater than 0.05. Therefore, it can be concluded that the data are normally distributed, thus meeting one of the assumptions for hypothesis testing.

#### a. Multicollinearity

This test is conducted to determine whether the independent variables in a multiple linear regression model are perfectly correlated with the other independent variables. Multicollinearity can be detected by examining the VIF value. If the VIF value is less than 10, the model is considered free from multicollinearity. The multicollinearity test using SPSS 25 in this study is as follows:

Table 4.15 Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Kapabilitas Kontraktor	.289	3.459
	Faktor Eksternal	.289	3.459

Source: Data Processing with SPSS 25, 2025

Table 4.15 shows that the Contractor Capability variable has a VIF value of 3.459 and the Project External Factors variable has a VIF value of 3.459. Both VIF values are below the established limit of 10. These results indicate that there are no multicollinearity issues among the independent variables in the model.

#### a. Heteroscedasticity

A good model requires freedom from heteroscedasticity. The basis for determining the presence or absence of heteroscedasticity is graphical analysis using a scatter plot. Using SPSS 25, a scatter plot graph is obtained to detect the presence or absence of heteroscedasticity, as follows:

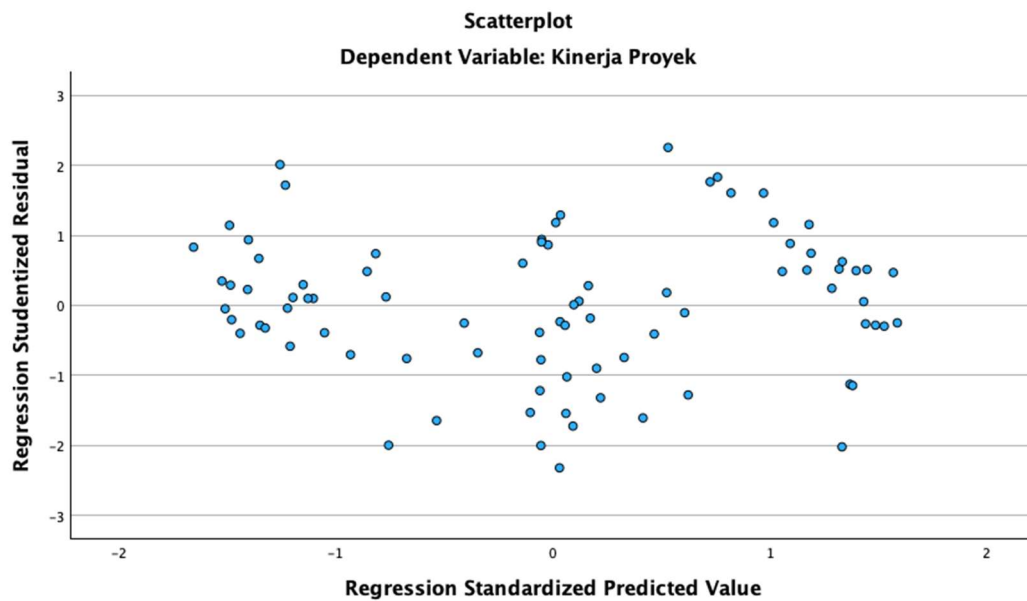


Figure 4.1 Heteroscedasticity Test Using Scatterplot (Source: Data Processing with SPSS 25, 2025)

Figure 4.1 shows that there is no heteroscedasticity in the model, as there is no clear pattern, and the points are spread above and below the number 0 on the Y-axis. This indicates that the variance of the residuals from one observation to the next is constant.

#### 4.1.3 Multiple Linear Regression Model

The Multiple Linear Regression Model was used to determine the relationship between Contractor Capabilities and External Project Factors on Project Performance. Using SPSS 25, the following multiple linear regression calculation results were obtained:

Table 4.16 Regression Coefficient Results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.902	3.353		1.462	.148
	Kapabilitas Kontraktor	.546	.079	.574	6.936	.000
	Faktor Eksternal	.702	.153	.379	4.581	.000

a. Dependent Variable: Kinerja Proyek

Source: Data Processing with SPSS 25, 2025

regression equation to be formulated as follows:

$$Y = a + b_1X_1 + b_2X_2$$

Based on Table 4.16, the constant and regression coefficients were obtained, allowing the multiple linear

$$Y = 4.902 + 0.546(X_1) + 0.702(X_2)$$

Where:

Y = Project Performance

a = Constant

X<sub>1</sub> = Contractor Capabilities

X<sub>2</sub> = External Project Factors

b<sub>1</sub>, b<sub>2</sub> = Regression Coefficients

ε = Error term

The multiple regression analysis equation above can be interpreted as follows:

a) The constant 4.902 indicates the Project Performance score when Contractor

Capabilities and External Project Factors are zero.

b) The regression coefficient for Contractor Capabilities ( $X_1$ ) is 0.546, which represents the change in the Project Performance score percentage influenced by Contractor Capabilities. The positive sign indicates a direct relationship, meaning that if the Contractor Capabilities score increases by 1 unit while other variables are held constant, the Project Performance is predicted to increase by 0.546 units.

c) The regression coefficient for External Project Factors ( $X_2$ ) is 0.702, which represents the change in the Project Performance score percentage influenced by External Project Factors. The positive sign indicates a direct relationship, meaning that if the External Project Factors score increases by 1 unit while other variables are held constant, the Project Performance is predicted to increase by 0.702 units.

#### 4.1.2.1 Hypothesis Testing

##### a. Simultaneous Test (F-test)

The simultaneous test aims to assess the overall significance of the regression model. The F-statistic is used at a significance level of  $\alpha = 0.05$  (5%). The F-test compares the calculated F-value ( $F_{hitung}$ ) with the F-table value ( $F_{tabel}$ ). The regression significance test in this study was conducted using IBM SPSS 25 as follows:

Statistical Hypotheses:

$$1. H_0: b_1 = b_2 = 0$$

There is no effect of Contractor Capabilities and External Project Factors on Project Performance.

$$2. H_a: b_1 \neq b_2 \neq 0$$

There is a significant effect of Contractor Capabilities and External Project Factors on Project Performance.

Table 4.17 Results of Simultaneous Regression Significance Test

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15520.556	2	7760.278	212.190	.000 <sup>b</sup>
	Residual	2962.359	81	36.572		
	Total	18482.915	83			
a. Dependent Variable: Project Performance						
b. Predictors: (Constant), External Factors, Contractor Capabilities						

Source: Data Processing with SPSS 25, 2025

Based on Table 4.17, the calculated F value is 212.190 with a sig. of 0.00, with  $\alpha = 0.05$  (5%), and degrees of freedom ( $df_1 = k = 2$  and  $df_2 = n - (k + 1) = 84 - (2 + 1) = 81$ ). The F table value is 3.11, indicating that the calculated F is greater than the F table ( $212.190 > 3.11$ ). Furthermore, the sig. value is lower than the confidence level ( $0.00 < 0.05$ ), indicating that  $H_0$  is rejected. Thus, this study demonstrates that the regression model is significant, indicating that Contractor Capability and External Project Factors simultaneously have a significant effect on Project Performance in the Bengkulu City Hall Construction Project.

#### Partial Test (t-test)

The significance test of the regression coefficient is used for analysis when researchers intend to determine the influence

between independent and dependent variables, with one of the independent variables held constant or controlled. The hypotheses to be proposed and verified are as follows:

Statistical Hypothesis:

$$H_0: b_1 = 0$$

There is no influence of Contractor Capabilities on Project Performance

$$H_a: b_1 \neq 0$$

There is an influence of Contractor Capabilities on Project Performance

$$H_0: b_2 = 0$$

There is no influence of External Project Factors on Project Performance



Ha:  $b_2 \neq 0$

There is an influence of External Project Factors on Project Performance

To test the significance of the partial regression coefficients using a t-test at a significance level of  $\alpha$  (5%) and degrees of freedom ( $df = n - (k+1) = 84 - (2+1) = 81$ ), the t-table value for the two-tailed t-distribution was 1.99. The decision-making criteria used were:

If t-count  $> 1.99$  and the significance value is less than 0.05,  $H_0$  is rejected.

If t-test  $< 1.99$  and the significance value is greater than 0.05,  $H_0$  is accepted.

The significance test for the regression coefficients in this study used SPSS 25, as shown in Table 4.29, summarized below:

Table 4.18 Partial Test Results

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.902	3.353		1.462	.148
	Contractor Capabilities	.546	.079	.574	6.936	.000
	External Factors	.702	.153	.379	4.581	.000

a. Dependent Variable: Project Performance

Source: Data Processing with SPSS 25, 2025

In the first hypothesis, namely the influence of Contractor Capabilities on Project Performance, the calculated t value of 6.936 is greater than the t Table of 1.99, and it is known that sig. (0.000) is smaller than the significance level  $\alpha$  (0.05) so that  $H_0$  is rejected, which means that there is a significant influence between Contractor Capabilities on Project Performance, with a positive regression coefficient indicating that the better the Contractor Capabilities, the better the Project Performance will be, and vice versa, if the Contractor Capabilities are worse, the worse the Project Performance will be.

In the second hypothesis, namely the influence of External Project Factors on Project Performance, the calculated t value of 4.581 is greater than the t Table of 1.99 and it is known that sig. (0.000) is smaller than the significance level of  $\alpha$  (0.05), so  $H_0$  is rejected, indicating a significant influence between Project External Factors on Project

Performance. The regression coefficient is positive, indicating that better Project External Factors will have a greater impact on Project Performance, and conversely, worse Project External Factors will have a worse impact on Project Performance.

#### Correlation Coefficient Analysis

Correlation analysis was used to calculate the strength of the relationship between the Contractor Capability, Project External Factors, and Project Performance variables in the Bengkulu City Hall Construction Project. To determine the extent of the influence of Contractor Capability and Project External Factors on Project Performance, the coefficient of determination was calculated using the formula  $KD = r^2 \times 100\%$ , where r is the correlation value. The following results were obtained:

Table 4.19 Correlation

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.916 <sup>a</sup>	.840	.836	6.04751
a. Predictors: (Constant), External Factors, Contractor Capabilities				
b. Dependent Variable: Project Performance				

Source: Data Processing with SPSS 25, 2025

Table 4.30 shows the correlation between Contractor Capability, External Project Factors, and Project Performance is 0.916. This indicates a strong and unidirectional relationship between the variables Contractor Capability, External Project Factors, and Project Performance in the Bengkulu City Hall Construction Project. This means that if Contractor Capability and External Project Factors increase, Project Performance will also improve. Conversely, if Contractor Capability and External Project Factors decrease, Project Performance will also decrease.

The influence of the variables Contractor Capability and External Project Factors on Project Performance is  $(0.916)^2 \times 100\% = 84\%$ . This result indicates that the variables Contractor Capability and External Project Factors influence Project Performance by 84%, while the remaining 16% is influenced by other unobserved variables.

To determine the contribution of each variable Contractor Capability and External Project Factors to Project Performance, the partial coefficient of determination is calculated. The following data is obtained:

Table 4.20 Partial Determination Coefficient

Model		Standardized Coefficients	Correlations		
		Beta	Zero-order	Partial	Part
1	1 (Constant)				
	Contractor Capabilities	.574	.893	.610	.309
	External Factors	.379	.863	.454	.204

Source: Data Processing with SPSS 25, 2025

The partial coefficient of determination is obtained from the following calculation:

$$K_d = \beta \times \text{Zero Order} \times 100\%$$

1. The magnitude of the influence of Contractor Capability (X1) on Project Performance (Y)

$$= 0.574 \times 0.893 \times 100\% = 51.3\%$$

2. The magnitude of the influence of Project External Factors (X2) on Project Performance (Y)

$$= 0.379 \times 0.863 \times 100\% = 32.7\%$$

Based on the calculation of the magnitude of the influence of each independent variable (Contractor Capability and Project External Factors) on the dependent variable (Project Performance), it can be seen that the magnitude of the influence of Contractor Capability (X1) on Project Performance (Y) is

51.3%, the magnitude of the influence of Project External Factors (X2) on Project Performance (Y) is 32.7%, and the remaining 16% is influenced by other independent variables not examined in this study.

## 4.2 Discussion of Research Findings

### 4.2.1 The Effect of Contractor Capabilities on the Performance of the Bengkulu City Hall Construction Project

Contractor capabilities are a crucial element in the success of a construction project. These capabilities include technical expertise, work experience, resource management, and project planning and control skills. In the context of the Bengkulu City Hall construction project, improving contractor

capabilities is expected to have a positive impact on project time, cost, and quality efficiency.

Partial test results indicate that the Contractor Capability variable has a calculated t-value of 6.936, which is greater than the t-table of 1.99, with a significance value of  $0.000 < 0.05$ . The resulting regression coefficient is 0.546 and is positive, meaning that any increase in contractor capabilities will significantly improve project performance. Therefore, the alternative hypothesis ( $H_a$ ) is accepted, and contractor capabilities are proven to have a significant effect on project performance.

These findings indicate that aspects such as contractor work experience, resource management capabilities, technical skills, and efficiency in time and cost management are key factors in determining the success of a construction project. Strong contractor capabilities enable more structured project implementation, minimize the risk of errors, and effectively address technical challenges in the field. Therefore, improving the quality and professionalism of contractors is a strategic step in achieving project performance targets, both in terms of time, quality, and budget.

These results align with research conducted by Setiawan (2022), which states that contractor capabilities, particularly in management and technical aspects, significantly contribute to overall project performance. Furthermore, Gunawan and Rahayu (2020) also note that construction companies with strong project control systems tend to be more successful in completing projects on target.

However, these results contradict the findings of Harjito (2019), who showed that in project conditions with high environmental challenges such as remote locations or extreme weather, the influence of contractor capabilities is insignificant if not accompanied by flexibility in field planning.

**The Influence of External Project Factors on Project Performance in the Construction of Bengkulu City Hall**

External project factors encompass various factors beyond the internal control of the project implementer, such as government regulations, socio-political stability, local community support, weather conditions, and surrounding infrastructure. These factors can

act as both drivers and obstacles to smooth project implementation.

Based on the partial test results, the calculated t value was 4.581, which is greater than the t table of 1.99, with a significance value of  $0.000 < 0.05$ . The regression coefficient obtained was 0.702 and was positive, indicating that the better the project's external factors, the better the project's performance. Therefore, the alternative hypothesis ( $H_a$ ) is accepted, and the project's external factors have a significant influence on project performance.

This indicates that factors external to the project organization, such as government regulations, community support, social and political stability, geographic conditions, and weather, play a significant role in the success of construction projects. When external factors are favorable, such as smooth permitting, a conflict-free social environment, and relatively stable weather, project implementation can proceed without significant obstacles. Conversely, unfavorable external factors can lead to delays, increased costs, and reduced project quality. Therefore, managing risks related to external factors must be part of the overall project management strategy.

These results are consistent with research by Kusuma and Idris (2021), which revealed that external factors such as permitting, community support, and infrastructure significantly impact the efficiency and effectiveness of project implementation. Similarly, Simanjuntak (2023) stated that in public projects, factors such as the political climate and stakeholder support are crucial for project success.

However, these results differ from Farida's (2020) study, which found that external factors had no significant impact on projects with strong organizational structures and internal risk management, as these projects were able to anticipate external disruptions with adaptive strategies.

**The Simultaneous Influence of Contractor Capabilities and Project External Factors on Project Performance in the Construction of Bengkulu City Hall**

Project performance is influenced by a combination of internal and external factors. In this study, Contractor Capabilities, as an internal factor, and Project External Factors,

as an external factor, were tested simultaneously to determine whether they significantly influenced project performance. The results of the simultaneous F-test showed that the calculated F value was 212.190, greater than the F-table of 3.07, with a significance value of  $0.000 < 0.05$ . This indicates that both independent variables simultaneously had a significant impact on Project Performance. This means that the regression model used in this study is statistically sound, and changes in Contractor Capabilities and External Factors can jointly explain changes in Project Performance.

These results indicate that efforts to improve project performance cannot rely solely on one aspect but must be carried out comprehensively, taking into account both the contractor's internal quality and supporting external factors. Strong contractor capabilities will drive efficient project implementation, while conducive external factors will streamline administrative, logistical, and technical implementation processes in the field. Both complement each other and are key determinants of project success. Therefore, synergy between internal competencies and adaptation to the external environment is a key strategy for improving construction project performance.

These findings align with research by Wulansari (2021) and Sari and Susanto (2023), which showed that the combination of contractor quality and external support significantly determines construction project performance. Meanwhile, Amalia and Prabowo (2023) also stated that project success is determined by the synergy between internal project management and external readiness, such as regulatory and social and environmental factors.

However, this research differs from the study by Lukman and Ardiansyah (2020), which stated that under certain conditions, the simultaneous influence of these two factors is insignificant if there are no balancing factors such as project technology or a strict monitoring system.

## CONCLUSION

Based on the data analysis and discussion previously described regarding the influence

of Contractor Capabilities and External Project Factors on Project Performance in the Bengkulu City Hall Construction Project, the following conclusions were obtained:

1. The first hypothesis test revealed a significant influence between Contractor Capabilities and Project Performance, with a positive regression coefficient indicating that better Contractor Capabilities will improve Project Performance, and vice versa. Poor Contractor Capabilities will worsen Project Performance.
2. The second hypothesis test revealed a significant influence between External Project Factors and Project Performance, with a positive regression coefficient indicating that better Project External Factors will improve Project Performance, and vice versa. Poor Project External Factors will worsen Project Performance.
3. Contractor Capabilities and External Project Factors significantly influence Project Performance, both partially and simultaneously. Contractor Capabilities and External Project Factors simultaneously contribute 84% to Project Performance, while the remaining 16% is influenced by other unobserved variables.

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