

Analysis Of Factors Influencing Contractor Performance in The Construction of School Facilities Projects in Central Sulawesi

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Abstract

Project success is strongly influenced by contractor performance as the main executor of field work. This study aims to identify the factors affecting contractor performance and analyze their impact on the success of the Construction of School Facilities in Central Sulawesi project. This research uses a quantitative method with a survey approach. Data were collected through questionnaires distributed to construction workers involved in the development of school facilities in Central Sulawesi. Data analysis was conducted using validity tests, reliability tests, multiple linear regression analysis, coefficient of determination (R^2), F-test, and t-test with the assistance of SPSS software. The results show that all questionnaire items are valid, with r -count values greater than the r -table value (0.361), and reliable, with Cronbach's Alpha values above 0.60. The regression analysis indicates that the human factor (X_1) and material factor (X_6) have a significant effect on contractor performance. Simultaneously, all independent variables significantly influence contractor performance, with an F -value of 6.669. The coefficient of determination (R^2) of 0.680 indicates that 68% of the variation in project performance can be explained by the studied factors. This study concludes that human and material factors are the dominant factors affecting contractor performance and the success of the project.

Keywords: contractor, performance, human, material, sulawesi.

Date of Submission: 17-06-2026

Date of Acceptance: 30-06-2026

I. INTRODUCTION

The development of the education sector is one of the strategic priorities within Indonesia's national development agenda. Improving the quality of education is determined not only by curriculum enhancement and the competence of teaching personnel but also by the availability of adequate, safe, and comfortable school facilities that support effective learning activities.

Central Sulawesi Province possesses challenging geographical and socio-economic characteristics, including remote areas, limited accessibility, and constraints in the availability of local labor and construction materials. Nevertheless, the development of educational infrastructure in the province is driven not only by the need for equitable access to education but also by the significant damage caused by natural disasters, particularly the 2018 earthquake and subsequent disaster events that affected the region.

The earthquake caused severe damage to numerous public facilities, including school buildings that either collapsed or suffered substantial structural deterioration. This situation disrupted teaching and learning activities and raised serious concerns regarding the safety of students and teachers. Consequently, school rehabilitation and reconstruction projects became a major priority in the post-disaster recovery process.

However, the implementation of school construction projects in the region has frequently encountered various challenges related to contractor performance, including project delays, substandard work quality, cost overruns, and ineffective project execution. These issues affect not only the efficiency of public budget utilization but also directly influence the accessibility and quality of education for local communities. Such conditions necessitate careful project implementation strategies and a high level of project management capability on the part of contractors. Failure to adequately address these challenges may significantly hinder project performance and outcomes.

Based on the aforementioned background, this study is entitled "Analysis of Factors Affecting Contractor Performance in the Construction of School Facilities Projects in Central Sulawesi."

The objectives of this study are as follows:

1. To identify the factors affecting contractor performance in the Construction of School Facilities Projects in Central Sulawesi.
2. To examine the influence of contractor performance on the success of Construction of School Facilities Projects in Central Sulawesi

II. LITERATURE REVIEW

2.1. CONTRACTOR

A contractor is a party that provides services to complete construction work in accordance with the agreement established between the project owner and the project executor (Asnudin, 2006). According to Ervianto (2005), a contractor is an individual or legal entity responsible for carrying out construction activities in compliance with the approved plans, regulations, and contractual provisions within the agreed project budget. To facilitate effective project implementation on site, contractors maintain continuous coordination and communication with consultants throughout the construction process (Ervianto, 2005). Li et al. (2015) identified three primary factors influencing performance, namely personal factors, system-related factors, and situational context factors. Furthermore, Dziuba et al. (2020) argued that organizational performance is not solely determined by individual and team performance but is also influenced by broader and more complex environmental factors, both internal and external. These environmental factors include economic, social, political, safety, and legal conditions within which an organization operates.

According to Christina (2012), the key performance indicators of construction projects include: (1) project completion within the specified schedule; (2) compliance of work outcomes with established technical specifications; (3) adherence to quality control standards; (4) the absence of workplace accidents during project execution; and (5) the minimization of errors and negligence in performing construction activities.

In accordance with Regulation No. 3 of 2017 issued by the Indonesian Construction Services Development Board (LPJK), the re-registration of construction service providers is governed by several contractor-related characteristics, including business entity structure, business classification, and qualification requirements. Hidayat (2020) emphasized that contractors are required to possess strong managerial capabilities, adequate professional experience, and relevant technical expertise to ensure successful project implementation and achievement of project objectives

2.2. SCHOOL FACILITIES AND INFRASTRUCTURE STANDARDS

Buildings constitute an essential component of human life and play a crucial role in supporting social, economic, and educational activities. Each region in Indonesia possesses unique characteristics in terms of economic, social, cultural, and environmental conditions. Therefore, regulations governing building construction must take into account the specific characteristics and local conditions of the regions in which they are applied. Such regulations are necessary to ensure that buildings are functional, reliable, safe, and suitable for local environmental conditions (Simanjuntak, 2013).

Educational facilities and infrastructure represent fundamental components of the education system and are required to comply with the National Education Standards of Indonesia. According to Government Regulation (PP) No. 19 of 2005, the Facilities and Infrastructure Standard is a national education standard that encompasses classrooms, training facilities, places of worship, libraries, laboratories, workshops or studios, playgrounds, creativity and recreation areas, minimum infrastructure requirements, and other learning resources necessary to support educational activities.

The devastating earthquake that struck Central Sulawesi on September 28, 2018, caused extensive damage and left a profound impact on local communities. With a magnitude of 7.4, followed by a tsunami and liquefaction, the disaster not only claimed thousands of lives but also destroyed critical infrastructure, including hundreds of educational facilities. In response to this crisis, the United Nations Development Programme (UNDP) provided substantial support through various post-disaster recovery initiatives. As part of its recovery program, UNDP implemented a range of rehabilitation and reconstruction activities aimed at restoring educational facilities in the affected areas, thereby contributing to the re-establishment of safe and conducive learning environments for students and educators.

2.3 PERFORMANCE AND PROJECT SUCCESS

Performance refers to the results or achievements attained through the execution of specific tasks or activities within a particular period. Performance evaluation is conducted to assess the extent to which employees achieve work objectives and to provide constructive recommendations for organizations in managing their human resources effectively (Sevina, 2023). At the individual level, performance is defined as the effort and commitment demonstrated by employees in carrying out specific activities, duties, or responsibilities to achieve optimal outcomes (Kurniati et al., 2018).

According to Mangkunegara (2017), performance can be measured using four key indicators: (1) work quality, which refers to the extent to which employees are capable of performing their assigned tasks effectively; (2) work quantity, which reflects the amount of work completed within a given period and is commonly measured through individual productivity and work speed; (3) task execution, which indicates the ability of employees to complete assigned duties accurately and with minimal errors; and (4) responsibility toward work, which refers to

employees' awareness of and commitment to fulfilling the obligations and responsibilities assigned by the organization.

Furthermore, employee performance is closely associated with individual motivation. Workers are expected to possess intrinsic motivation that encourages them to perform their duties effectively. Such motivation should originate from personal commitment and professional responsibility rather than from external pressure or compulsion (Saputra et al., 2018).

2.4 FACTORS AFFECTING CONTRACTOR PERFORMANCE

2.4.1 HUMAN RESOURCES (MAN)

Human resources constitute the most critical factor in construction projects. Project success cannot be achieved without competent and well-organized personnel. Organizational performance is largely determined by the quality of its human resources, including their capabilities, motivation, creativity, innovation, and capacity for continuous improvement. These attributes significantly influence overall organizational performance. According to Fitriyanto (2006), work readiness refers to an individual's state of preparedness to perform specific activities, resulting from a combination of maturity, adaptability, physical and mental conditions, and relevant experience.

2.4.2 FINANCIAL RESOURCES (MONEY)

Financial resources play a vital role in construction projects, which typically involve substantial budgets and extended implementation periods. Therefore, project funds must be managed effectively to prevent cost overruns and ensure financial sustainability. Financial resources refer to the availability of capital support that enables organizations to implement performance improvement programs. According to Kurniawan et al. (2020), capital represents funds provided for long-term financing and is utilized to support operational activities, organizational needs, and overall management processes within a company.

2.4.3 MARKET FACTORS

In the construction industry, market factors encompass project owners (clients), building users, and the broader construction services market environment. Market-related activities function as a link between organizational management and market conditions through the provision of information that can be utilized to identify opportunities and challenges, thereby enhancing the quality of managerial decision-making and organizational competitiveness.

2.4.4 EQUIPMENT AND TECHNOLOGY (MACHINES)

Construction equipment and technology contribute significantly to project implementation by accelerating work processes, reducing dependence on manual labor, and improving the accuracy and quality of construction outputs. According to Tjiptono (2003), technology comprises physical tools and systems that facilitate knowledge transfer and support human capabilities. Such technologies are designed to enhance human performance and improve organizational competitiveness.

2.4.5 WORK METHODS

Work methods in construction projects refer to the technical and managerial approaches employed to execute project activities efficiently, effectively, safely, and in accordance with established quality standards. Appropriate work methods contribute to improved productivity, resource utilization, and project performance.

2.4.6 MATERIALS

Materials are the physical construction components used to create building structures. The selection, procurement, and management of materials are critical determinants of construction quality and cost efficiency. According to Asiyanto (2004), material requirements are highly dependent on an organization's work program. The success and quality of construction activities largely depend on the availability of materials and other organizational resources that support operational processes.

2.4.7 Occupational Safety, Health, and Environmental Factors

Occupational safety refers to all measures undertaken to protect workers from potential accidents and hazards during construction activities. Lingard and Rowlinson (2005) emphasized that a strong safety culture positively influences construction project performance by reducing workplace accidents and improving operational efficiency.

Environmental considerations have also become increasingly important in construction project management. According to Zolfagharian et al. (2012), environmental awareness and sustainable construction practices contribute to enhanced project performance through the reduction of resource waste, improved environmental impact management, and greater overall project sustainability.

III. RESEARCH METHODOLOGY

3.1. RESEARCH LOCATION

This study was conducted in Central Sulawesi Province, Indonesia, covering four regencies/municipalities, namely Palu City, Sigi Regency, Donggala Regency, and Parigi Moutong Regency. These areas were selected as the study locations due to the implementation of the Construction of School Facilities Projects in Central Sulawesi. The geographical distribution of the research locations is presented in Figure 1.

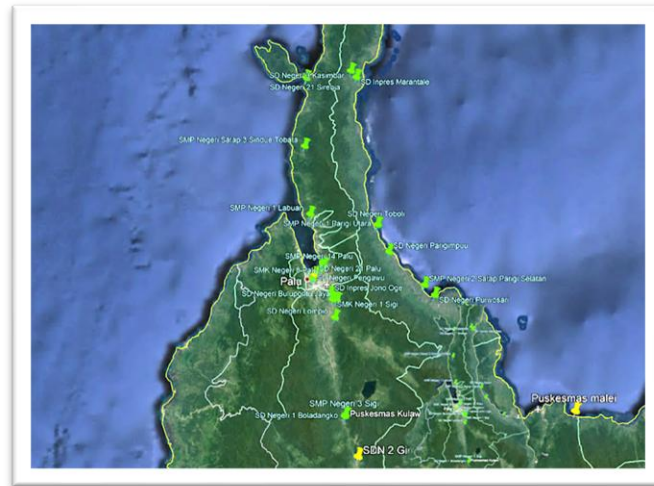


Figure 1. Research Location

3.2. DATA COLLECTION

Data collection is a critical component of a successful research process. It involves determining the sources of data, the instruments used, and the methods employed to obtain the required information. Data sources may be classified as either primary data, obtained directly from respondents, or secondary data, collected from indirect sources such as reports, documents, and previous studies. To achieve the research objectives, data collection was conducted systematically and progressively in accordance with the intended research goals.

Based on the conceptual model developed through a comprehensive literature review, the researcher identified variables representing the factors affecting contractor performance in school facility construction projects in Central Sulawesi. The selection of these variables was further supported by expert perceptions and professional judgments collected during the preliminary stage of the study. The factors and variables influencing contractor performance in school facility construction projects in Central Sulawesi are presented in Table 1.

Table 1. Description of Factors and Sub-Factor Variables

Factor	Variable	Code
Human Resources (X1)	Skills appropriate to assigned duties and responsibilities	X1.1
	Human resource certification	X1.2
	Discipline and work ethic	X1.3
	Occupational Safety and Health (OSH) awareness	X1.4
	Team coordination and communication	X1.5
Financial Resources (X2)	Availability of funds	X2.1
	Financial management (cash flow)	X2.2
	Timeliness of payments	X2.3
	Efficient budget planning	X2.4
	Contingency funds	X2.5
Market Factors (X3)	Availability of projects in the market	X3.1
	Level of competition among contractors	X3.2
	Fluctuation of material and service prices	X3.3

Factor	Variable	Code
Equipment and Technology (X4)	Demand and trends in the construction market	X3.4
	Innovation and technology adoption in the market	X3.5
	Availability of equipment	X4.1
	Condition and service life of equipment	X4.2
	Operator qualifications	X4.3
	Utilization of technology	X4.4
Work Methods (X5)	Compliance with regulations and safety requirements	X4.5
	Suitability of methods to project type	X5.1
	Time and cost efficiency	X5.2
	Quality standards of work outputs	X5.3
	Flexibility and adaptability of methods	X5.4
Materials (X6)	Compliance with regulations and technical standards	X5.5
	Availability of materials	X6.1
	Material quality	X6.2
	Procurement and distribution	X6.3
	Storage and inventory control	X6.4
	Efficiency of material utilization	X6.5
Occupational Safety, Health, and Environment (X7)	Implementation of occupational safety practices	X7.1
	Implementation of occupational health programs	X7.2
	Construction waste management	X7.3
	Natural disaster risks	X7.4
	Utilization of environmentally friendly technology	X7.5

Table 2. Project Success Variables

Factor	Variable	Code
Project Success (Y)	Completion of work according to the established schedule	Y1
	Quality of work complies with technical specifications	Y2
	Quantity of materials used complies with contract requirements	Y3
	Project expenditures are consistent with the approved budget estimate	Y4
	Occupational Safety and Health (OSH) implementation and environmental awareness	Y5

The questionnaire employed in this study was a closed-ended questionnaire. This type of questionnaire provides respondents with predetermined answer choices, allowing them to select the option that best reflects their opinion. The questionnaire content was developed based on the factors identified in the conceptual model derived from the literature review.

A Likert scale was utilized to measure respondents' perceptions, opinions, and attitudes regarding the factors influencing contractor performance in school facility construction projects in Central Sulawesi. According to the Likert scaling method, each variable is represented by several indicators, which are subsequently translated into statements or questions. Respondents were asked to indicate their level of agreement using a five-point scale.

Table 3. Likert Scale Scores

No.	Statement	Code	Score
1	Very Influential	VI	5
2	Influential	I	4
3	Moderately Influential	MI	3

4	Not Influential	NI	2
5	Very Not Influential	VNI	1

The respondents involved in this study consisted of project team members from the United Nations Development Programme (UNDP), the Central Sulawesi Provincial Education Office, District Education Offices, contractors, and supervising consultants who were directly involved in the implementation of school facility construction projects in Central Sulawesi.

3.3. DATA TABULATION AND STATISTICAL ANALYSIS

3.3.1. VALIDITY TEST

A validity test is an evaluation procedure used to determine the extent to which a measurement instrument—particularly questionnaire items—adequately represents the construct being measured. The purpose of validity testing is to ensure that each item in the questionnaire accurately reflects the intended concept under investigation.

3.3.2. RELIABILITY TEST

A reliability test refers to the consistency of a measurement instrument when applied repeatedly under similar conditions. A measurement instrument is considered reliable if respondents provide consistent answers to the same questions or statements over time. Therefore, higher stability of the measurement instrument indicates higher reliability and measurement effectiveness.

To assess reliability, this study employed Cronbach's Alpha. The Cronbach's Alpha coefficient ranges from 0 to 1, where higher values indicate stronger internal consistency. When categorized into five equal intervals, the interpretation of Cronbach's Alpha values is as follows:

- 0.00 – 0.20 indicates **very low reliability**
- 0.21 – 0.40 indicates **low reliability**
- 0.41 – 0.60 indicates **moderate reliability**
- 0.61 – 0.80 indicates **reliable**
- 0.81 – 1.00 indicates **very high reliability**

3.3.3. MULTIPLE CORRELATION ANALYSIS

Correlation analysis measures the strength of the relationship between two or more variables. It is used to determine the degree of association between variables without considering whether a causal relationship exists. The relationship between variables may be linear or non-linear. A relationship is considered linear when the plotted points (xi, yi) are distributed around a straight line, whereas it is considered non-linear when the points follow a curved pattern.

Table 4. Correlation Coefficient Interpretation

Correlation Coefficient Interval	Correlation Level
0.000 – 0.199	Very weak
0.200 – 0.399	Weak
0.400 – 0.599	Moderate
0.600 – 0.799	Strong
0.800 – 1.000	Very strong

Source: Sarwono (2006)

The linear correlation model used in this study is as follows:

$$r_{xy} = \frac{\sum(x_i \cdot y_i)}{\sqrt{(\sum x_i^2 \cdot \sum y_i^2)}} \quad \dots (1)$$

where:

r_{xy} = correlation coefficient

x_i = $X - \bar{X}$

y_i = $Y - \bar{Y}$

Hypothesis testing for the correlation model is interpreted as follows:

- If $r = 0$, there is no relationship between the variables
- If $r > 0$, there is a positive relationship
- If $r < 0$, there is a negative relationship

3.3.4. MULTIPLE REGRESSION ANALYSIS

Regression analysis is a statistical method used to model the mathematical relationship between observed data pairs. It is also used to describe the relationship between one dependent variable and two or more independent variables.

The multiple linear regression equation with n predictors is expressed as:

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n \dots (2)$$

where:

Y = Contractor Performance

$X_1, X_2, \dots, X_n$ = Factors influencing contractor performance

a = constant

$b_1, b_2, \dots, b_n$ = regression coefficients

IV. RESULTS AND DISCUSSION

The results of this study were obtained from questionnaire distribution to construction contractor personnel in Central Sulawesi. The researcher directly assisted respondents in completing the questionnaires, collected documentation, and also distributed questionnaires via an online Google Forms link. A total of 30 questionnaires were distributed and all 30 were successfully returned.

Table 5. Number of Respondents

No. Population Sample Returned			
1	30	30	30

4.1. VALIDITY TEST

The validity test was conducted to determine the accuracy and precision of a measurement instrument in measuring what it is intended to measure. The higher the validity level of an instrument, the more accurate it is in achieving its measurement objectives. The validity test in this study was carried out on 30 respondents.

Decision criteria:

- If $r\text{-calculated} > r\text{-table}$: Valid
- If $r\text{-calculated} < r\text{-table}$: Not valid

Table 6. Validity Test Results

Variable Group	Variable	Item	r-count	r-table	Remark
Influencing Factors	Human Resources (X1)	X1.1	0.603	0.361	Valid
		X1.2	0.628	0.361	Valid
		X1.3	0.657	0.361	Valid
		X1.4	0.651	0.361	Valid
		X1.5	0.666	0.361	Valid
	Financial (X2)	X2.1	0.608	0.361	Valid
		X2.2	0.760	0.361	Valid

Variable Group	Variable	Item	r-count	r-table	Remark
	Market (X3)	X2.3	0.573	0.361	Valid
		X2.4	0.738	0.361	Valid
		X2.5	0.620	0.361	Valid
		X3.1	0.702	0.361	Valid
		X3.2	0.731	0.361	Valid
	Equipment (X4)	X3.3	0.701	0.361	Valid
		X3.4	0.722	0.361	Valid
		X3.5	0.740	0.361	Valid
		X4.1	0.776	0.361	Valid
		X4.2	0.698	0.361	Valid
	Methods (X5)	X4.3	0.701	0.361	Valid
		X4.4	0.644	0.361	Valid
		X4.5	0.691	0.361	Valid
		X5.1	0.699	0.361	Valid
		X5.2	0.649	0.361	Valid
	Market/External (X6)	X5.3	0.644	0.361	Valid
		X5.4	0.711	0.361	Valid
		X5.5	0.615	0.361	Valid
		X6.1	0.681	0.361	Valid
		X6.2	0.578	0.361	Valid
	OSH and Environment (X7)	X6.3	0.574	0.361	Valid
		X6.4	0.547	0.361	Valid
		X6.5	0.620	0.361	Valid
		X7.1	0.673	0.361	Valid
		X7.2	0.805	0.361	Valid
	Project Performance (Y)	X7.3	0.704	0.361	Valid
		X7.4	0.673	0.361	Valid
		X7.5	0.706	0.361	Valid
		Y1	0.501	0.361	Valid
		Y2	0.624	0.361	Valid
		Y3	0.679	0.361	Valid
		Y4	0.776	0.361	Valid
		Y5	0.744	0.361	Valid

Based on the validity test results for all variables influencing contractor performance in the Construction of School Facilities Projects in Central Sulawesi, all questionnaire items were found to be valid. This is evidenced by the fact that all calculated r-values are greater than the r-table value

4.2 RELIABILITY TEST

If the item reliability coefficient (Cronbach's Alpha) is positive and greater than 0.60, then the item is considered reliable. The valid items were subsequently subjected to a reliability test. The results of the reliability test are presented in Table 7.

Table 7. Reliability Test Results

Variable	Cronbach's Alpha	Critical Value	Remark
Human Resources (Man)	0.682	0.60	Reliable

Financial (Money)	0.697	0.60	Reliable
Market	0.646	0.60	Reliable
Equipment (Machine)	0.721	0.60	Reliable
Methods	0.728	0.60	Reliable
Materials	0.688	0.60	Reliable
Occupational Safety and Health (OSH) and Environment	0.649	0.60	Reliable
Project Success	0.601	0.60	Reliable

Based on the reliability test results of the variables influencing contractor performance in the Construction of School Facilities Projects in Central Sulawesi, it can be concluded that all Cronbach's Alpha values are greater than 0.60. Therefore, all variables are considered reliable and demonstrate acceptable internal consistency

4.3 RESULTS OF MULTIPLE LINEAR REGRESSION ANALYSIS

The extent to which independent variables influence the dependent variable was examined using multiple linear regression analysis. In this study, SPSS software was employed to perform the multiple linear regression analysis. Based on SPSS output, the regression model results are presented in the following tables.

Table 8. Coefficient of Determination Test (R Test)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	0.824	0.680	0.578	0.37647	0.680	6.669	7	22	0.000	1.871

- a. Predictors: (Constant), Total X7, Total X2, Total X6, Total X1, Total X4, Total X3
b. Dependent Variable: Total Y

Based on the Model Summary results, the correlation coefficient (R) value is 0.824. This indicates a strong relationship between the independent variables in the model and the dependent variable. A correlation coefficient approaching 1 indicates a stronger linear relationship among variables; therefore, it can be concluded that the independent variables have a strong association with the dependent variable.

Table 9. Partial Significance Test (t-test)

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	-3.835	1.328	—	-2.887	0.009
TOTAL X1	0.520	0.216	0.399	2.413	0.025
TOTAL X2	0.309	0.133	0.315	2.333	0.029
TOTAL X3	-0.399	0.192	-0.347	-2.079	0.049
TOTAL X4	0.207	0.188	0.170	1.104	0.282
TOTAL X5	0.255	0.133	0.243	1.910	0.069
TOTAL X6	0.601	0.211	0.379	2.852	0.009
TOTAL X7	0.375	0.185	0.336	2.030	0.055

- a. Dependent Variable: TOTAL Y

The t-test was conducted to determine the partial effect of each independent variable on the dependent variable (TOTAL Y). The test compares the calculated t-value with the t-table value and considers the significance value (Sig.) at a confidence level of $\alpha = 0.05$. A variable is considered to have a significant effect if the Sig. value is less than 0.05

4.4 DISCUSSION

Based on the results of the t-test analysis, it can be concluded that the variables TOTAL X1 (Human Resources) and TOTAL X6 (Materials) have a statistically significant partial effect on TOTAL Y (Project Success). In contrast, TOTAL X2, TOTAL X3, TOTAL X4, TOTAL X5, and TOTAL X7 do not show a statistically significant partial effect. The most dominant variables influencing TOTAL Y are TOTAL X1 and TOTAL X6, as indicated by their relatively higher standardized beta coefficients compared to other variables.

4.4.1 TOTAL X6 MATERIALS

The TOTAL X6 variable (materials) is a highly significant factor influencing contractor performance in the Construction of School Facilities Projects in Central Sulawesi. The geographical conditions of Central Sulawesi, characterized by vast areas, diverse topography, and varying levels of transportation accessibility across project locations, make material management a critical aspect of construction project execution.

The availability of sufficient materials and timely delivery plays a crucial role in ensuring smooth project implementation, particularly in remote project sites that are far from main supply centers. In addition, the quality of materials must comply with technical specifications to ensure that the constructed school facilities meet the required standards. Procurement and distribution processes also play an essential role, as delays in material supply caused by transportation constraints, long distances, or weather conditions can significantly affect project schedules and overall construction progress.

4.4.2 TOTAL X1 HUMAN RESOURCES

Human resources represent one of the significant factors influencing contractor performance in the Construction of School Facilities Projects in Central Sulawesi. The geographical characteristics of Central Sulawesi, which include urban areas, rural regions, and locations with limited accessibility, make the quality of human resources a key determinant of project implementation success.

One of the main challenges is the limited availability of construction workers who possess the required competencies and certifications, particularly in areas far from training and workforce development centers. Workforce skills that are aligned with assigned tasks and responsibilities are essential in determining work quality and productivity. Competent workers are able to perform tasks in accordance with technical specifications, reduce errors, and minimize rework. Furthermore, possession of competency certification serves as evidence that workers have the required skills in accordance with applicable construction standards

V. CONCLUSION

The factors influencing contractor performance in the Construction of School Facilities Projects in Central Sulawesi consist of human resources, financial resources (money), market factors, equipment (machine), work methods (method), materials, as well as occupational safety, health, and environmental factors. The results of the study indicate that all of these factors simultaneously have a significant effect on contractor performance. Partially, human resources and materials are the most influential factors. Therefore, improving the quality of human resources and ensuring effective material management are key elements in enhancing contractor performance.

Contractor performance has a significant effect on the success of the Construction of School Facilities Projects in Central Sulawesi. Project success is determined by the contractor's ability to meet targets related to time, cost, quality, and occupational safety. The analysis results show that the research model explains 68.0% of the variation in project success. Thus, the better the contractor performance, the higher the level of project success achieved

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