Journal of Social Science and Education Research
Volume 2, No. 5, 2025 - ISSN: 3066-6554
Website: https://jitir.seevalue.org/ojs33/index.php/jitir/index

The Impact of Project Organization on Papua Governor's Office Construction Performance

Ajeng Dewi Rani[1], Otius Kogoya[2], Arief Fath Atiya[3], Leary Pakiding[4], Dominggus Bakarbessy[5]
Program Studi Teknik Sipil, Universitas Sains dan Teknologi Jayapura, Kota Jayapura, Indonesia [1,2,3,4,5]

Keywords:
Project Organization,
Construction Performance,
Labor Quality,
Physical Environment,
Worker Management,
Project Performance Optimization,
Team Performance Quality.

Abstract

This study investigates the influence of project organization on the performance of the Papua Governor's Office construction project. The primary focus is on improving labor quality, which is influenced by both internal and external factors within the contractor's project organization structure. The research aims to identify the variables that affect labor quality and overall project performance, considering key internal factors such as organizational structure, worker management, and the physical work environment. Using multiple linear regression analysis and SPSS 26.0, the study analyzes data from project managers and field supervisors involved in the project. The results indicate that the physical environment aspect had the highest Cronbach's alpha value, highlighting its significant impact on project success. Conversely, the worker aspect showed the lowest reliability, indicating challenges in worker management and task distribution. Based on these findings, it is recommended that the project management team improve worker training, task allocation, and overall coordination. Addressing these internal factors will enhance the effectiveness and efficiency of the construction process. The study underscores the importance of optimizing project organization and worker welfare to achieve better project outcomes and minimize delays.

Corresponding Author:
Ajeng Dewi Rani
Email:
ajengdewirani08@gmail.com

This is an open access article under the CC BY license.

INTRODUCTION

In a project, planning is typically conducted to ensure that a task is carried out according to the desired quality, within the given timeframe, and in line with the target cost. Deviations from the plan, however, are inevitable, and in the construction industry, such occurrences are very common. These deviations happen due to the inherent nature of construction work and the uncertainties associated with it. Construction projects often face difficulties that are challenging or even impossible to control, requiring specific tools or methods for better resource management (Dipohusodo, 1996). This suggests the necessity for planning tools or methods that can help anticipate potential issues early during the execution phase (Ervianto, 2023).

Project management consists of the organizational structure of the information system. The organization is established by top management and the relationship between the project team and project management is defined (Kerzner, 2009). One common structure used is the functional organization structure, where the organization is grouped according to specific functional areas (Dipohusodo, 1994). The implementation of a construction project

involves many parties, utilizes various types of resources and efforts, and faces problems that are difficult or even impossible to control, indicating the need for effective planning (Kerzner, 2025).

The implementation of a construction project involves many parties, utilizes various types of resources and efforts, and faces problems that are difficult or even impossible to control. This indicates the need for planning tools or methods that can help manage resources effectively and anticipate potential issues as early as possible during the execution phase.

In the implementation of the Papua Governor's Office construction project by PT. PP (Contractor) and PT. Yodia Karya (consultant/management contractor), during the site cleaning phase up to the excavation work phase, bore piles are used for the old building of the Papua Governor's Office. To support the effectiveness and efficiency of work in the construction of the Papua Governor's Office, proper management is essential to ensure that tasks and supervision are completed on time. There are several indications of issues that may cause delays or negative results in the Papua Governor's Office construction project. Among these issues is poor or suboptimal project organization management. The primary cause of poor organizational management is the lack of skilled labor and inadequate professional workforce quality.

METHOD

Data Collection Techniques

The stages of data collection in this study include:

1. Literature Study

The literature study in this research was conducted to obtain secondary data related to the research topic, namely the Influence of Project Organization on the Performance of the Construction of the Papua Governor's Office, which is consistent with the role of literature studies in strengthening theoretical foundations and research positioning (Melfianora & Si, 2019). The research was conducted in two areas, which are:

a. Literature study on lecture materials, thesis books, reference books, journals, and literature related to the research topic, particularly in the context of construction planning and control methods (Mahapatni, 2019).
b. Study on project data related to the research topic.

2. Direct Observation Technique

The direct observation technique is a data collection method carried out by visiting the research site directly, which is essential in construction projects due to the complexity of field conditions such as land characteristics and site constraints (Salindeho, 1993). This technique is performed with the goal of obtaining primary data needed in the analysis stage. The benefit of visiting the research site directly is that the primary data obtained is more accurate, and the author can accurately understand the conditions at the research site. This direct observation technique was performed in two areas, namely:

a. Interview Technique

The interview technique is a data collection method through one-sided question and answer with the concerned parties (the implementing contractor and design consultant in the construction of the Papua Governor's Office), particularly to explore managerial and financial considerations in project implementation (Ummatin et al., 2017).

b. Questionnaires

Questionnaires, also referred to as correspondence, are related to respondents through a list of questions sent to them, which are commonly used in construction productivity and labor performance studies (Kaming &

Setyanto, 2000). The characteristic of a questionnaire is that it collects data through written question lists designed to obtain information or data needs from human informants.

Research Methodology

The research methods used in this study are as follows:

1. Descriptive Analysis

Descriptive analysis is used to describe, explain, and elaborate statistical data such as frequency, standard deviation, median, mode, and proportion. This analysis will be used to illustrate the tendencies of contractors in Lhokseumawe in using project organization structures in construction projects.

2. Inferential Analysis

Inferential analysis is conducted using sample data to estimate an unknown population parameter. The inferential analysis used is Cronbach's alpha with SPSS 16 software to analyze differences between one contractor's project organization and another contractor's project organization.

3. Regression Analysis

Regression analysis is used to show the relationship between the dependent variable and two or more independent variables. It produces an equation that links a dependent variable with multiple independent variables.

RESULT AND DISCUSSION

Validity Test

Analysis and measurement of variables based on indicators:

X1 = Organizational Aspect

X2 = Worker Aspect

X3 = Physical Environment Aspect

X4 = Equipment and Technology Used in the Project Aspect

X5 = Quality of Team Performance within the Contractor Project Organization Structure Aspect

Y = Project Performance Optimization Aspect

1. Validity Test for Organizational Aspect

Table 1. Validity Test Results for Organizational Aspect

Indicator	r Table	r Calculated	Description
X1.1	0.5494	0.868	Valid
X1.2	0.5494	0.762	Valid
X1.3	0.5494	0.794	Valid
X1.4	0.5494	0.600	Valid
X1.5	0.5494	0.804	Valid
X1.6	0.5494	0.795	Valid
X1.7	0.5494	0.152	Invalid
X1.8	0.5494	0.813	Valid
X1.9	0.5494	0.843	Valid

X1.10	0.5494	0.905	Valid
X1.11	0.5494	0.816	Valid
X1.12	0.5494	0.897	Valid
X1.13	0.5494	0.812	Valid

Source: Analysis 1.1

2. Validity Test for Worker Aspect

Table 2. Validity Test Results for Worker Aspect

Indicator	r Table	r Calculated	Description
X2.1	0.5494	0.976	Valid
X2.2	0.5494	0.758	Valid
X2.3	0.5494	0.943	Valid
X2.4	0.5494	0.721	Valid
X2.5	0.5494	0.913	Valid
X2.6	0.5494	0.875	Valid

Source: Analysis 1.2

3. Validity Test for Physical Environment Aspect

Table 3. Validity Test Results for Physical Environment Aspect

Indicator	r Table	r Calculated	Description
X3.1	0.5494	0.972	Valid
X3.2	0.5494	0.850	Valid
X3.3	0.5494	0.895	Valid
X3.4	0.5494	0.949	Valid
X3.5	0.5494	0.897	Valid
X3.6	0.5494	0.904	Valid
X3.7	0.5494	0.875	Valid
X3.8	0.5494	0.836	Valid
X3.9	0.5494	0.783	Valid
X3.10	0.5494	0.931	Valid
X3.11	0.5494	0.952	Valid
X3.12	0.5494	0.917	Valid
X3.13	0.5494	0.762	Valid

Source: Analysis 1.3

4. Validity Test for Equipment and Technology Used in the Project Aspect

Table 4. Validity Test Results for Equipment and Technology Used in the Project Aspect

Indicator	r Table	r Calculated	Description
X4.1	0.5494	0.900	Valid
X4.2	0.5494	0.930	Valid
X4.3	0.5494	0.870	Valid

X4.4	0.5494	0.899	Valid
X4.5	0.5494	0.856	Valid
X4.6	0.5494	0.863	Valid
X4.7	0.5494	0.819	Valid

Source: Analysis 1.4

5. Validity Test for Quality of Team Performance within the Contractor Project Organization Structure Aspect

Table 5. Validity Test Results for Quality of Team Performance within the Contractor Project Organization Structure Aspect

Indicator	r Table	r Calculated	Description
X5.1	0.5494	0.939	Valid
X5.2	0.5494	0.914	Valid
X5.3	0.5494	0.965	Valid
X5.4	0.5494	0.965	Valid
X5.5	0.5494	0.945	Valid

Source: Analysis 1.5

6. Validity Test for Project Performance Optimization Aspect

Table 6. Validity Test Results for Project Performance Optimization Aspect

Indicator	r Table	r Calculated	Description
Y.1	0.5494	0.933	Valid
Y.2	0.5494	0.904	Valid
Y.3	0.5494	0.920	Valid
Y.4	0.5494	0.874	Valid
Y.5	0.5494	0.860	Valid

Source: Analysis 1.6

7. Reliability Test

Table 7. Reliability Test Results (Cronbach Alpha Value)

Variable	Cronbach Alpha	Description
Organizational Aspect	0.709	Reliable
Worker Aspect	0.934	Reliable
Physical Environment Aspect	0.976	Reliable
Equipment and Technology Used in the Project Aspect	0.947	Reliable
Quality of Team Performance within the Contractor Project Organization Structure Aspect	0.971	Reliable
Project Performance Optimization Aspect	0.935	Reliable

Source: Analysis 1.1 – 1.6

8. Correlation Coefficient Criteria

Table 8. Correlation Coefficient Criteria

Correlation Interval Coefficient	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, 2007:231)

T-Test

Table 9. Partial Significance Test (t-Test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.645	3.096		.531	.623
	Organizational Aspect	-.145	.172	-.342	-.839	.448
	Worker Aspect	.060	.375	.080	.161	.880
	Physical Environment Aspect	.290	.200	.754	1.449	.221
	Technology and Equipment Aspect	.361	.386	.489	.934	.403
	Quality of Team Performance within the Contractor Project Organization Structure	.009	.474	.011	.019	.986

a. Dependent Variable: Project Performance Optimization Aspect

Source: Analysis 2

F-Test

Table 10. Simultaneous Significance Test (F-Test)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	296.284	5	59.257	90.591	.000[b]
	Residual	2.616	4	.654		
	Total	298.900	9			

a. Dependent Variable: Project Performance Optimization Aspect

b. Predictors: (Constant), Quality of Team Performance within the Contractor Project Organization Structure, Organizational Aspect, Physical Environment Aspect, Worker Aspect, Technology and Equipment Used in the Project Aspect

Source: Analysis 3

Multiple Determination Test (R^2)

Table 11. Determination Test (R^2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996[a]	.991	.980	.809

a. Predictors: (Constant), Quality of Team Performance within the Contractor Project Organization Structure, Organizational Aspect, Physical Environment Aspect, Worker Aspect, Technology and Equipment Used in the Project Aspect

Source: Analysis 4

Final Response Recap for Organizational Aspect

Table 12. Final Response Recap for Organizational Aspect

No	Sub-Aspect	Mean	Answer
A1	Ability to analyze project risks	0.969	Strongly Agree
A2	Company Management	0.973	Strongly Agree
A3	Company Strategy	0.972	Strongly Agree
A4	Company Work Environment	0.971	Strongly Agree
A5	Company Goals	0.971	Strongly Agree
A6	Company Culture	0.971	Strongly Agree
A7	Poor coordination and communication between divisions in the contractor's work organization on your project	0.972	Strongly Agree
A8	Occurrence of overlapping work between divisions in your project's organizational structure	0.974	Strongly Agree
A9	Unclear task distribution (job desk) between divisions in your project	0.974	Strongly Agree
A10	Poor information flow between divisions in your project	0.971	Strongly Agree
A11	Lack of control over project execution by project leadership	0.973	Strongly Agree
A12	Lack of clarity in decision-making autonomy on your project	0.971	Strongly Agree
A13	Poor coordination with the owner on your project	0.974	Strongly Agree

Source: SPSS Data Analysis, (2022)

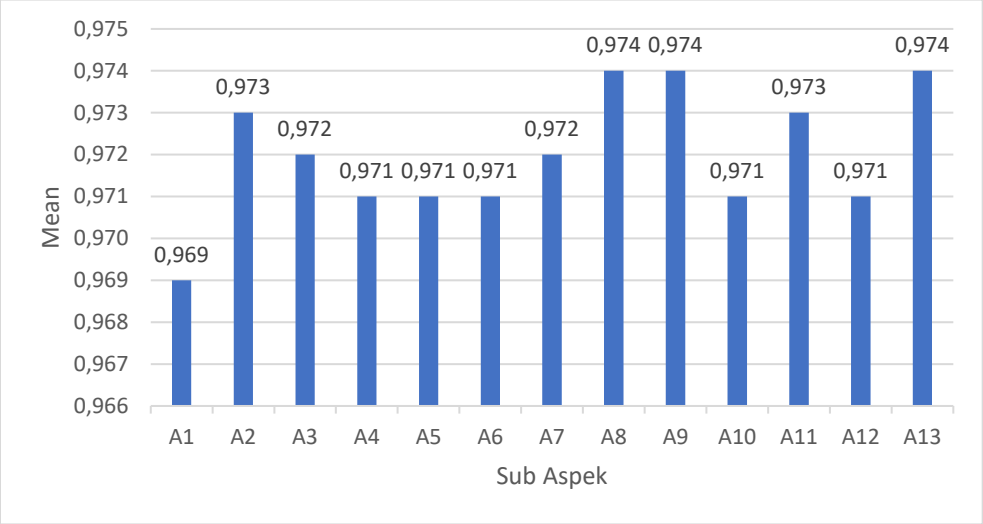

Figure 1. Mean Score Graph of Respondents' Answers for Organizational Aspect

Final Response Recap for Worker Aspect

Table 13. Final Response Recap for Worker Aspect

No	Sub-Aspect	Mean	Answer
B1	Ability of project members to apply work methods	0.915	Strongly Agree
B2	Ability to complete task distribution in the project	0.919	Strongly Agree
B3	Ability to assign workers within the project	0.918	Strongly Agree
B4	Ability to manage project organization	0.927	Strongly Agree
B5	Ability to apply work schedules with project members	0.934	Strongly Agree
B6	Ability to divide workload in project management	0.935	Strongly Agree

Source: SPSS Data Analysis, (2022)

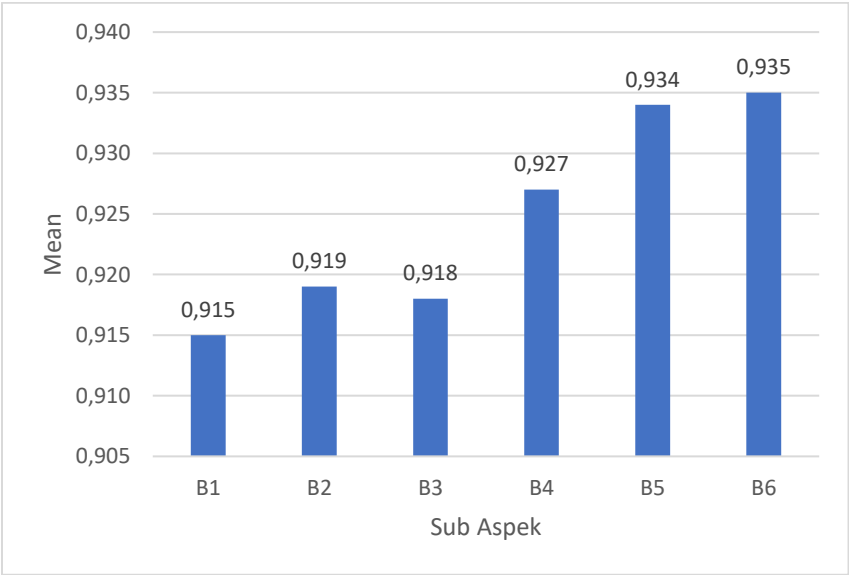

Figure 2. Mean Score Graph of Respondents' Answers for Worker Aspect

Final Response Recap for Physical Environment Aspect

Table 14. Final Response Recap for Physical Environment Aspect

No	Sub-Aspect	Mean	Answer
C1	Good communication within the project team	0.972	Strongly Agree
C2	Punctuality	0.975	Strongly Agree
C3	Quality of output	0.974	Strongly Agree
C4	On-budget completion	0.973	Strongly Agree
C5	Ability to motivate project team members	0.974	Strongly Agree
C6	Participation of project team members	0.974	Strongly Agree
C7	Ability to solve problems	0.975	Strongly Agree
C8	Ability to analyze project risks	0.976	Strongly Agree
C9	Past job success	0.976	Strongly Agree
C10	Ability to adapt to changes	0.973	Strongly Agree
C11	Company work environment	0.973	Strongly Agree
C12	Ability to solve issues	0.973	Strongly Agree
C13	Ability to overcome differences	0.977	Strongly Agree

Source: SPSS Data Analysis, (2022)

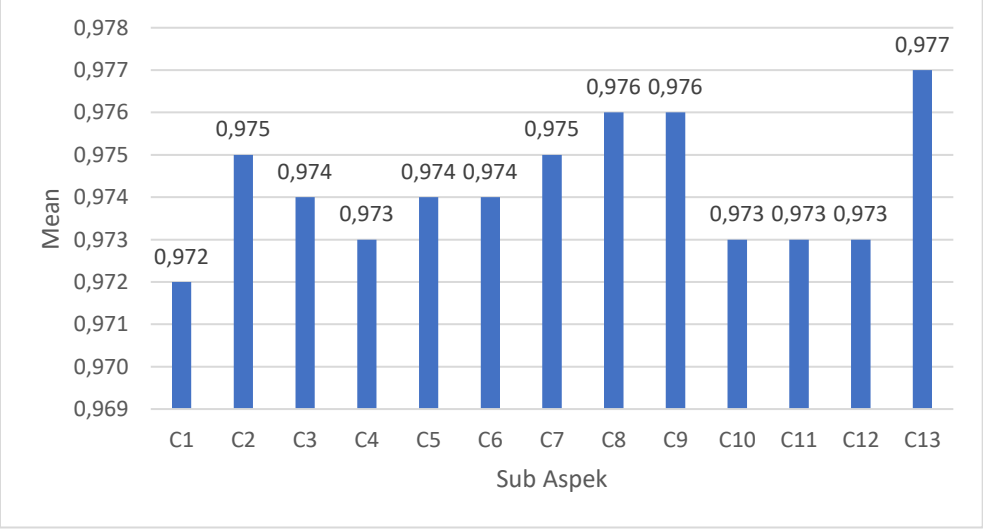

Figure 3. Mean Score Graph of Respondents' Answers for Physical Environment Aspect

Final Response Recap for Equipment and Technology Used in the Project Aspect

Table 15. Final Response Recap for Equipment and Technology Used in the Project Aspect

No	Sub-Aspect	Mean	Answer
D1	Ability of members to solve problems	0.937	Strongly Agree
D2	Mutual trust	0.932	Strongly Agree
D3	Condition of equipment and machinery to be used	0.936	Strongly Agree
D4	On-budget completion	0.937	Strongly Agree
D5	Punctuality	0.941	Strongly Agree
D6	Ability to analyze project risks	0.944	Strongly Agree

D7	Company management	0.945	Strongly Agree

Source: SPSS Data Analysis, (2022)

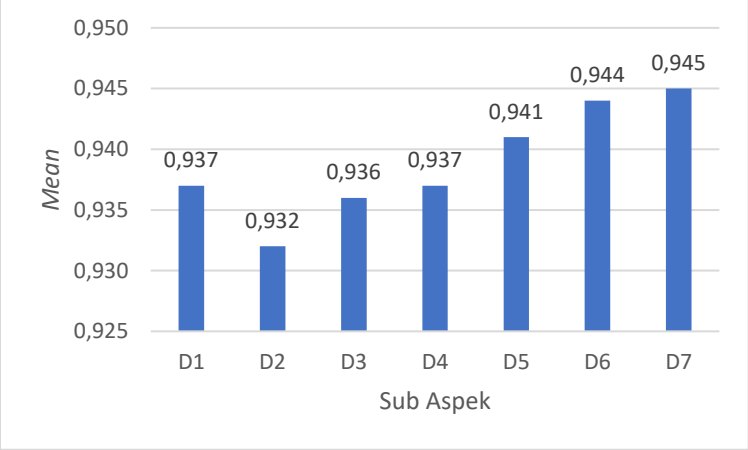

Figure 4. Mean Score Graph of Respondents' Answers for Equipment and Technology Used in the Project Aspect

Final Response Recap for Quality of Team Performance within the Contractor Project Organization Structure

Table 16. Final Response Recap for Quality of Team Performance within the Contractor Project Organization Structure

No	Sub-Aspect	Mean	Answer
E1	Plan consistency in terms of volume and cost of work in the field	0.919	Strongly Agree
E2	Cost realization consistency based on work volume in the field	0.906	Strongly Agree
E3	Realization of work costs in the field in line with targets	0.906	Strongly Agree
E4	Work output in accordance with quality standards	0.902	Strongly Agree
E5	Time realization in line with the project plan	0.903	Strongly Agree

Source: SPSS Data Analysis, (2022)

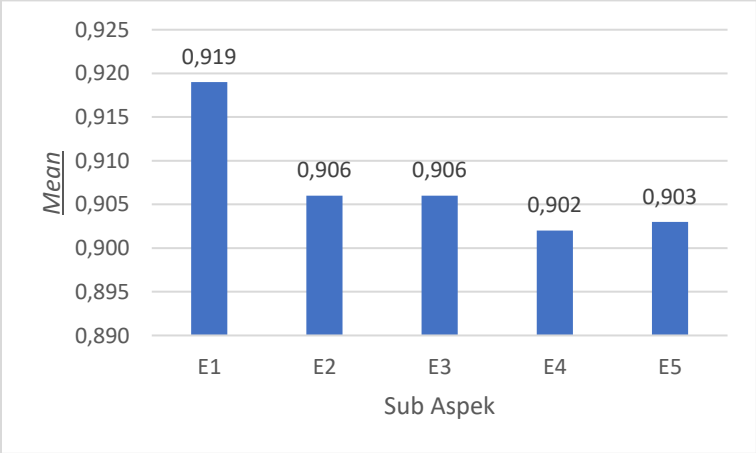

Figure 5. Mean Score Graph of Respondents' Answers for Quality of Team Performance within the Contractor Project Organization Structure

Discussion

The results of the study on the Papua Governor's Office Construction Performance indicate that project organization plays a significant role in shaping the quality of construction performance. The various aspects of project organization analyzed, such as the organizational aspect, worker aspect, physical environment aspect, and the equipment and technology used, all contribute to the project's overall success. The validity tests conducted on these aspects show generally strong results, with all items being validated, except for one indicator in the organizational aspect (X1.7). This suggests that while most elements of the project organization function well, some components need refinement, particularly in communication and coordination between divisions within the contractor's organizational structure, which can lead to inefficiencies and delays (Asiyanto, 2010; Dipohusodo, 1996).

One of the key findings from the validity tests was the high reliability of the physical environment aspect (Cronbach's alpha of 0.976), which aligns with the research of Kerzner, (2009), who emphasizes the importance of the physical environment in ensuring smooth project operations. This finding suggests that the project environment, including team collaboration, punctuality, and the quality of outputs, significantly influences the project's success, as noted by the respondents. The strong correlation between project performance and physical environment confirms that fostering a positive, well-managed physical work environment is a fundamental factor in achieving high project performance (Dipohusodo, 1994).

Furthermore, the worker aspect, which includes the ability of project members to apply work methods, assign workers appropriately, and manage tasks, also emerged as highly reliable with a Cronbach's alpha of 0.934. This is in line with the findings of Prianto et al., (2012), who argue that effective workforce management directly impacts the productivity and quality of construction projects. The high scores in the worker aspect underscore the importance of having a skilled and well-coordinated team, where task distribution and work schedules are aligned to optimize performance (Ervianto, 2023).

This finding reinforces the importance of managerial competence in improving organizational performance, as competent leadership is essential for coordinating team efforts, improving decision-making, and ensuring that tasks are completed efficiently (Beauvais, 2018).

The equipment and technology used in the project also showed strong results in the study, with respondents indicating strong agreement on the availability and effectiveness of machinery and technology for completing the work on time and within budget. This aspect, with a Cronbach's alpha of 0.947, demonstrates the importance of modern equipment and technology in mitigating delays and ensuring the quality of work (Husen, 2019; Kaming & Setyanto, 2000). The high scores in this area reflect the critical role that technological resources play in supporting the project's goals, ensuring that tasks are executed efficiently and without major technical hindrances (Mahapatni, 2019).

This aligns with the principles of cost and time control in construction projects, where the efficient use of equipment and technology directly impacts project performance, keeping it on schedule and within budget (Santoso, 1999). Furthermore, effective cost and time control are crucial for ensuring that project resources are allocated appropriately and the project is completed efficiently, as highlighted by Nur Aisyah (2018) in her study on controlling costs and time for construction projects (Nur, 2018).

The regression and reliability analyses further support the notion that organizational and environmental factors, when managed properly, have a strong positive impact on construction performance. Specifically, the regression results show a high R^2 value of 0.991, indicating that the variables in the study—organizational aspects, physical environment, worker management, and equipment—account for a significant portion of the variation in project performance. This aligns with the general understanding in project management literature, where a well-

structured organization, skilled workforce, and a positive environment are crucial for ensuring project success (Santoso, 1999; Siagian & Khair, 2018; Soeharto, 1997).

From the perspective of practical application, these findings suggest that construction companies, particularly those managing large-scale projects such as the Papua Governor's Office, should prioritize improving their internal organizational structures, worker coordination, and the physical environment. As the study indicates, issues such as poor coordination, overlapping tasks, and unclear job responsibilities must be addressed to enhance project performance. By investing in regular training for workers and improving internal communication, companies can mitigate risks and prevent delays, ultimately optimizing project outcomes (Badu & Djafri, 2017).

In conclusion, the study highlights the integral relationship between project organization and construction performance. It stresses that successful project management is not only about planning and technical expertise but also about fostering a supportive organizational culture and physical work environment. By aligning these factors with the project goals, construction companies can achieve optimal performance, as demonstrated in this research (Frederika & Widhiawati, 2017).

CONCLUSION

Based on the results of the study, several internal factors have been identified as influential in the quality of labor and project performance within construction companies. These factors include the organizational aspect (X1), worker aspect (X2), physical environment aspect (X3), equipment and technology used in the project aspect (X4), the quality of team performance within the contractor project organization structure (X5), and project performance optimization (Y). Among these, the physical environment aspect emerged as the highest contributing factor, with a Cronbach Alpha value of 0.976, highlighting its significant role in the success of the project. The study found that effective management of the project's organizational structure, skilled workforce, and a conducive physical environment are key determinants of overall performance. To address the issues identified, such as suboptimal project organization management and the need for a more skilled labor force, it is recommended that the company implement measures to improve workforce training, enhance coordination, and optimize resource management.

Recommendations for Future Research

Future research should focus on expanding the scope of this study to include a more diverse range of construction projects, particularly those in different geographical areas or with varying levels of complexity. Additionally, further studies could explore the influence of external factors, such as market conditions, regulatory environments, and supply chain management, on project performance. Another potential area for future research is the examination of advanced technological solutions and their impact on optimizing labor quality and project efficiency. By incorporating these factors, future studies could provide a more comprehensive understanding of the dynamics that affect the construction industry and offer actionable insights for improving project outcomes across different contexts.

REFERENCES

Asiyanto. (2010). *Construction project cost management*. Jakarta: Pradnya Paramita.

Badu, S. Q., & Djafri, N. (2017). Kepemimpinan dan perilaku organisasi. *Gorontalo: Ideas Publishing*.

Beauvais, A. M. (2018). *Leadership and management competence in nursing practice: Competencies, skills, decision-making*. Springer Publishing Company.

Dipohusodo, I. (1994). *Struktur Beton Bertulang, Jakarta: Gramedia Pustaka Utama*.

Dipohusodo, I. (1996). Manajemen Proyek dan Konstruksi jilid 1 dan jilid 2. *Kanisius Jakarta*.

Ervianto, W. I. (2023). *Manajemen proyek konstruksi*. Penerbit Andi.

Frederika, A., & Widhiawati, I. A. R. (2017). Analisis produktivitas metode pelaksanaan pengecoran beton ready mix pada balok dan pelat lantai gedung. *Jurnal Spektran*, *5*(1), 56–63.

Husen, A. (2019). Manajemen Proyek Perencanaan Penjadwalan & Pengendalian. *Proyek. Yogyakarta: Andi Offset*.

Kaming, S., & Setyanto, E. (2000). Study Tentang Produktivitas Tenaga Kerja Konstruksi di Yogyakarta dan Sekitarnya. *Proceeding Of Conference Of Contruction Project Management Critical Isue And Challenge Into The Next Millenium*, *5667*.

Kerzner, H. (2009). *Project Management: A Systems Approach to*.

Kerzner, H. (2025). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons.

Mahapatni, I. A. P. S. (2019). *Metode perencanaan dan pengendalian proyek konstruksi*. Unhi Press.

Melfianora, M., & Si, M. (2019). Penulisan karya tulis ilmiah dengan studi literatur. *Open Science Framework*, *12*(1), 14–26.

Nur, R. A. (2018). Pengendalian Biaya Dan Waktu Pada Proyek Penyelesaian Gedung Perawatan Obsgyn Dan Anak (Dua Lantai). *Makassar: Skripsi*.

Prianto, K., Dewi, S. M., & Pujiraharjo, A. (2012). Pengaruh kompetensi manajer proyek terhadap keberhasilan proyek pada perusahaan kontraktor di Kabupaten Malang. *Jurnal Media Teknik Sipil*, *10*(2).

Salindeho, J. (1993). Masalah Tanah dan Pembangunan. *Sinar Grafika: Jakarta*.

Santoso, I. (1999). Analisa overruns biaya pada beberapa tipe proyek konstruksi. *Civil Engineering Dimension*, *1*(1), 40–45.

Siagian, T. S., & Khair, H. (2018). Pengaruh gaya kepemimpinan dan lingkungan kerja terhadap kinerja karyawan dengan kepuasan kerja sebagai variabel intervening. *Maneggio: Jurnal Ilmiah Magister Manajemen*, *1*(1), 59–70.

Soeharto, I. (1997). *Manajemen proyek dari konseptual sampai operasional*.

Ummatin, K. K., Yakin, D. A., & MOA, Q. A. (2017). ANALISA MANFAAT BIAYA PROYEK PEMBAHARUAN UNIT PENGOLAHAN SAMPAH KOTA GRESIK DENGAN TEKNOLOGI HYDROTHERMAL. *Journal Industrial Servicess*, *3*(1c).