INTERNATIONAL JOURNAL ON ADVANCED TECHNOLOGY, ENGINEERING, AND INFORMATION SYSTEM
(IJATEIS)
VOLUME 1 ISSUE 4 (2022)

ANALYSIS OF THE INFLUENCE AND RELATIONSHIP OF THE EFFECT OF PERFORMANCE FACTORS ON THE QUALITY PERFORMANCE OF SUPERVISORY CONSULTANTS

Mayogo Setyo[1]*, Haris Muhammadun[2], Wateno Oetomo[3]
[1,2,3] Faculty Engineering, Universitas 17 Agustus 1945 Surabaya
E-mail: [1)] 1472000058@untag-sby.ac.id

Abstract

Roads are the main means for the community to mobilize to carry out their respective activities. With the vital function of roads, it is important for roads to carry out regular road maintenance. Road maintenance carried out must also be of good quality so that road functions can continue to be used properly and have a durable condition. This study aims to analyze the influence and relationship of Influence factors on the Quality Performance of Supervisory Consultants. The research population was 75 Road Maintenance Supervisory Consultants with a total sample of the entire population. The research data collection technique used a questionnaire. The analytical technique chosen to analyze the data and test the hypothesis in this study used Partial Least Square (PLS). The results indicate that Human Resources and Work Execution Methods have no significant effect on the Quality Performance of Supervisory Consultants. Meanwhile, understanding of technical, environmental and managerial specifications has a significant effect on the Quality Performance of the Supervisory Consultant.

Keywords: Quality Performance, Supervision Consultant, Road Maintenance

1. INTRODUCTION

The highway is a medium for land transportation trajectories to move from one place to another. Roads as part of infrastructure have a very important role in the national transportation system (Ferdian et al., 2018). Road maintenance is a very important thing to do in maintaining the sustainability of economic activities and people's lives in both cities and villages.

Road maintenance is all types of work needed to maintain and repair roads to keep them in good condition or work related to both, thereby preventing deterioration or deterioration in quality with the rapid rate of change that occurs immediately after construction is carried out (Liani, 2016). Road maintenance is a road handling activity, in the form of prevention, maintenance and repairs needed to maintain road conditions so that they continue to function optimally to serve traffic so that the specified plan life can be achieved.

The purpose of road maintenance is to maintain a steady road condition in accordance with the level of service and capability when the road is completed and operated until the specified design life is reached. Road maintenance includes routine maintenance activities, periodic maintenance, road rehabilitation and road reconstruction (Regulation of the Minister of PUPR Number 13/PRT/M/2011 Article 18, 2011). Road maintenance is not only on the pavement, but also includes the maintenance of complementary road buildings and facilities and their supporting facilities.

In carrying out road maintenance work, the government is required to carry out the work quickly, precisely and in accordance with the specified quality. Therefore, a third party which is a representative of the government who is given the authority to carry out road maintenance work plays an important role in determining work results. The success of road construction projects carried out by the government is largely determined by the role of the construction actors involved, one of which is a provider of consulting services (consultants) and the success of a consulting service company is measured by the performance of the company (Tomigolung, et al., 2013)

According to Tallama, (2014), the supervisory consultant is the party appointed by the project owner (owner) to carry out the supervisory work. The task of the supervisory consultant in general is to translate the wishes and needs of the client by assisting the planning consultant in the design process which is poured into drawings, calculations and other supporting documents as well as supervising and assisting the contractor in order to carry out the development process in accordance with the standards and planning applied. . The supervising consultant becomes the determinant in the results of the road maintenance project work.

With the community's demand for public facilities that have good quality, this research focuses on the quality factor of project work. The quality of a project work can be affected by several things. Research by Ferdian et al (2018) states that the factors that influence the performance of project quality are Human Resources Factors, Material Factors, Equipment Factors, Evaluation Factors, Managerial Factors, Financial Factors, Field Management Factors, Project Owner Management Factors, Design Factors and Environmental Factors. According to Aziz et al., (2016) the factors that affect the performance of supervisory consultants on the quality of project implementation are Understanding Contract Documents, Understanding Technical Specifications, Material Usage, Labor Use, Equipment Use, Work Execution Methods, and Local Government Regulations.

With the importance of the work of the Supervisory Consultant in carrying out road maintenance, it is also important to understand the factors that can affect the quality of the work. Therefore, the researcher will conduct research on the analysis of the influence and relationship of the Contribution Factors of the Supervisory Consultant's Performance on the Quality of Road Maintenance Works. This study aims to analyze the factors that affect the quality of road maintenance project work on the supervisory consultant.

2. LITERATURE REVIEW

2.1. Project

According to Dimyati and Nurjaman (2014:2), a project is a temporary endeavor to produce a unique product or service. In general, projects involve several people whose activities are interconnected and the main project sponsor is usually interested in the effective use of resources to complete the project efficiently and on time. In general, the definition of a project is a work activity that is interconnected in a chain to achieve one or more goals with time constraints, costs and the desired end result. The project is a long series of activities that starts from being planned, then carried out, until it actually delivers results or outputs that are in accordance with the plan.

2.2. Road Maintenance

Maintenance is all types of work needed to maintain and repair roads to keep them in good condition or work related to both, so as to prevent deterioration or deterioration in quality with the rapid rate of change that occurs immediately after construction is carried out (Ali, 2006; Liani, 2016). The purpose of road maintenance is to maintain a steady road condition in accordance with the level of service and capability when the road is completed and operated until the specified design life is reached. Road maintenance includes routine maintenance activities, periodic maintenance, road rehabilitation and road reconstruction (Regulation of the Minister of PUPR Number 13/PRT/M/2011 Article 18, 2011).

2.3. Project Performance

Performance is a result of work achieved by a person in carrying out the tasks assigned to him based on skills, experience, sincerity, and time (Ervianto, 2009:69). Performance is a description of the level of achievement of the implementation of an activity, program, policy in realizing the goals, objectives, mission, and vision contained in the organization's strategic planning (Mahsun, 2006).Project performance is the result of work carried out by a contractor or supervisory consultant in the implementation of a construction project.

2.4. Supervising Consultants

The supervisory consultant is the party appointed by the project owner (owner) to carry out the supervisory work (Tallama, 2014).A supervisory consultant is a company that acts as the captain of a supervisory team that provides planning instead of a design, direction, and recommendations in determining the direction and policy of project implementation. The consultant is also a professional, strong and independent multi-disciplinary body that works for project owners from the beginning of planning to project operation, able to work closely with architects to achieve optimal results in terms of time, cost, and quality as previously determined (Ervianto, 2009).

2.5. Factors Affecting Quality Performance of Supervisory Consultants

There are several factors that can affect the Quality Performance of Supervisory Consultants in the implementation of road maintenance. Research by Ferdian et al (2018) states that the factors that influence the performance of project quality are Human Resources Factors, Material Factors, Equipment Factors, Evaluation Factors, Managerial Factors, Financial Factors, Field Management Factors, Project Owner Management Factors, Design Factors and Environmental Factors. According to Azis (2016), the factors that affect the performance of the supervisory consultant on the quality of project implementation are Understanding Contract Documents, Understanding Technical Specifications, Material Usage, Labor Use, Equipment Use, Work Execution Methods, and Local Government Regulations.

2.6. Conceptual Framework

To make it easier for researchers and readers to understand the factors that influence the quality performance of the supervisory consultant, the researchers created a conceptual framework. The following is the conceptual framework of this research, namely:

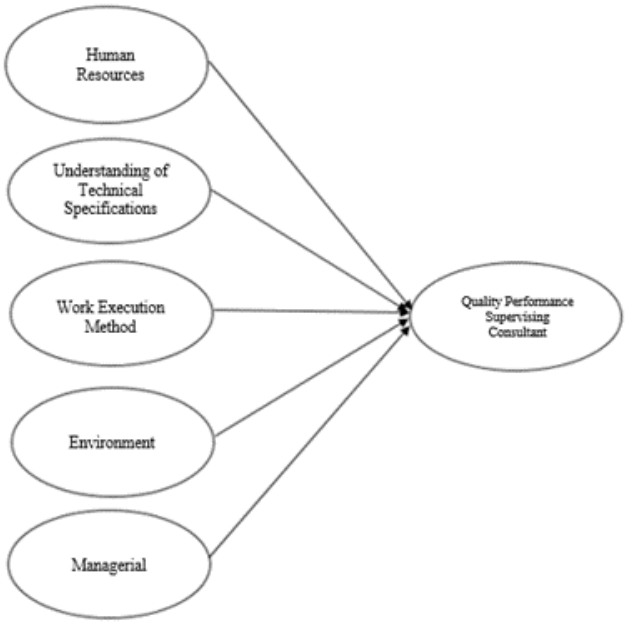

Figure 1 Conceptual Framework

3. RESEARCH METHOD

The research uses a quantitative approach with field studies. The data used in this study was primary data obtained from the results of the distribution of questionnaires in the form of numbers. In addition, secondary data obtained from journals, books and other references are also used.

The population of this research were the total of 75 supervisory consultants. The research sampling technique uses a saturated sampling technique, where the sample was determined if all members of the population are sampled (Grønmo, 2019:164). So, the sample of this research were 75 Supervisory Consultants. Data collection techniques using a questionnaire. The analytical technique chosen to analyze the data and test hypotheses in this study is the Structural Equation Model (SEM). To answer the hypothesis used Partial Least Square (PLS).

The identification of variables used in this study is divided into two types, namely independent variables and dependent variables, including:

1) The independent variables are Human Resources (X1), Understanding of Technical Specifications (X2), Work Execution Methods (X3), Environment (X4) and Managerial (X5)
2) The dependent variable is the Quality Performance of the Supervisory Consultant (Y)

The following is the operational definition of each research variable as follows:

1) Supervisory Consultant Quality Performance (Y)isa degree achieved by product characteristics in meeting the requirements, needs and expectations (Haryono, 2005).The following indicators of the Quality Performance of the Supervisory Consultant are Service Delivery (Y1), Availability of quality materials (Y2), Availability of tools with qualified capabilities in maintenance activities (Y3), Good

workforce (Y4), Work materials that meet standards (Y5) (Permono & Mulyono, 2015)

2) Human Resources (X1) is individuals who are positioned as assets in a situation, job or institution which are usually referred to as laborers, employees, employees, workers, labor and so on (Kumari et al., 2015). Indicator of Human Resources is the Skill Level of the Workforce (X1.1), Task Division (X1.2), Workforce Discipline (X1.3), Project Manager Experience (X1.4) and appropriate Manpower Quantity (X1.5)
3) Understanding of Technical Specifications (X2) is an understanding of a technical order that can help all relevant parties to agree on the understanding of certain technical matters that occur in a job (DPUPR Grobogan, 2019). There are several indicators regarding Technical Specific Understanding, namely Understanding of Technical Specifications (X2.1) and Provision of Technical Specification Solutions (X2.2)
4) Work Execution Method (X3) is method which describes the mastery of systematic work completion from start to finish including the stages/sequences of the main work and a description or working method of each type of main work activity that can be technically accounted for (Tunas et al., 2020). Indicators of Work Execution Methods are Understanding of Work Execution Methods (X3.1), Understanding of Work Implementation Standards (X3.2), Giving warnings to work that does not work according to standards (X3.3)
5) Environment (X4) is all external factors that affect an organism; These factors can be in the form of living organisms (biotic factors) or non-living variables (abiotic factors) (Haryanto, 2018). Indicators of the Environment are Workplace Conditions (X4.1), Weather (X4.2), Changes in Government Regulations (X4.3), Social Problems (X4.4) and Conflicting Interests (X5.5).
6) Managerial (X5) is the process of controlling and supervising a project so that it can work as expected. The following indicators from Managerial are Field Manager Experience (X5.1), Communication between parties (X5.2), Cooperation between workers (X5.3), Calculation of material requirements (X5.4) and Design changes (X5.5).

4. RESULT AND DISCUSSION

4.1. Research Result

In analyzing the data on the Partial Least Square, two types of tests will be carried out, namely the Outer Model Test and the Inner Model Test. Outer modeloften toocalled(outer relation or measurement model) specifies the relationship between the variables studied and their indicators. While in the Inner Modelan assessment of the model of the relationship between the dependent latent variable and the independent latent variable was carried out. The following are the respective tests on the Inner and Outer Tests, namely:

4.1.1. Outer Model

1) Convergent Validity

The measurement model test through the loading factor is carried out to determine the validity of the indicators by looking at the convergent validity values of the indicators in the model. Each indicator in the model must meet convergent validity, which has a value > 0.5. If each indicator already has a loading factor value > 0.5, the evaluation step can be continued. However, if not, it is necessary to reduce the indicators that have a Convergent validity value <0.5 by doing further iterations until the loading factor value for each indicator is > 0.5.

Table 1 Convergent Validity

Variable	Items	*Original Sample*	Results
Human Resources (X1)	**X1.1**	0.838	Valid
	X1.2	0.876	
	X1.3	0.827	
	X1.4	0.776	
	X1.5	0.747	
Understanding of Technical Specifications (X2)	**X2.1**	0.923	
	X2.2	0.848	
Work Execution Method (X3)	**X3.1**	0.864	
	X3.2	0.926	
	X3.3	0.826	
Environment (X4)	**X4.1**	0.809	
	X4.2	0.853	
	X4.3	0.802	
	X4.4	0.930	
	X4.5	0.859	
Managerial (X5)	**X5.1**	0.882	
	X5.2	0.690	
	X5.3	0.767	
	X5.4	0.890	
	X5.5	0.825	
Quality Performance Supervising Consultant (Y)	**Y1**	0.729	
	Y2	0.894	
	Y3	0.809	
	Y4	0.898	
	Y5	0.833	

Source: PLS Processed Products

Based on Table 1, the Human Resources Variable (X1) as measured by 5 measurement items overall has a convergent validity value above 0.5, so the 5 items whose variables are declared valid as a measuring tool for the construct. The Technical Specification Understanding Variable (X2) as measured by 2 measurement items has a convergent validity

value above 0.5, so the 5 items are declared valid as a measuring tool for the construct. The Variable Work Implementation Method (X3) as measured by 3 measurement items has a convergent validity value above 0.5, so the 3 items are declared valid as a measuring tool for the construct. The Environmental Variable (X4) which is measured by 5 measurement items has a convergent validity value above 0.5, then the 5 items are declared valid as a measuring tool for the construct. The managerial variable (X5) which is measured by 5 measurement items has a convergent validity value above 0.5, so the 5 items are declared valid as a measuring tool for the construct. And the Supervising Consultant Quality Performance Variable (Y) which was measured by 5 measurement items overall had a convergent validity value above 0.5, then the 5 items were declared valid as a measuring tool for the construct.

2) Discriminant Validity

Discriminant validity test aims to test the validity of the indicator block. Discriminant validity tests on indicators can be seen in the cross loadings between indicators and their constructs as shown in Table 2 The indicator block is called valid if the value of each indicator in measuring the construct variable (indicator block) is dominantly higher when compared to the value of each indicator. in measuring the other construct variables.

Table 2 Cross Loading

	Human Resources (X1)	Understanding of Technical Specifications (X2)	Work Execution Method (X3)	Environment (X4)	Managerial (X5)	Quality Performance Supervising Consultant (Y)
X1.1	0.838	0.565	0.710	0.716	0.653	0.677
X1.2	0.876	0.574	0.559	0.661	0.642	0.679
X1.3	0.827	0.540	0.504	0.512	0.570	0.559
X1.4	0.776	0.480	0.419	0.405	0.484	0.472
X1.5	0.747	0.442	0.365	0.372	0.484	0.408
X2.1	0.603	0.923	0.626	0.729	0.627	0.749
X2.2	0.537	0.848	0.500	0.575	0.502	0.544
X3.1	0.565	0.544	0.864	0.671	0.668	0.664
X3.2	0.604	0.630	0.926	0.680	0.651	0.616
X3.3	0.528	0.508	0.826	0.671	0.641	0.580
X4.1	0.648	0.638	0.589	0.809	0.601	0.674
X4.2	0.602	0.663	0.690	0.853	0.762	0.760
X4.3	0.440	0.520	0.547	0.802	0.662	0.671
X4.4	0.651	0.621	0.713	0.930	0.784	0.812
X4.5	0.553	0.727	0.733	0.859	0.737	0.752
X5.1	0.674	0.627	0.693	0.734	0.882	0.760
X5.2	0.436	0.302	0.513	0.632	0.690	0.529
X5.3	0.440	0.513	0.613	0.656	0.767	0.714
X5.4	0.655	0.614	0.707	0.716	0.890	0.703
X5.5	0.644	0.517	0.513	0.666	0.825	0.732
Y1	0.428	0.436	0.427	0.602	0.626	0.729
Y2	0.633	0.655	0.664	0.788	0.814	0.894

	Human Resources (X1)	Understanding of Technical Specifications (X2)	Work Execution Method (X3)	Environment (X4)	Managerial (X5)	Quality Performance Supervising Consultant (Y)
Y3	0.578	0.587	0.586	0.710	0.705	0.809
Y4	0.607	0.743	0.670	0.781	0.761	0.898
Y5	0.685	0.650	0.597	0.708	0.636	0.833

Source: PLS Processed Results

Based on Table 2, it is found that all of the constituent constructs are declared to have good discriminants. Where the correlation value of the indicator to the construct is greater than the correlation value between the indicator and other constructs.

3) Composite Reliability

Another test is the composite reliability of the indicator block that measures the construct (Ghozali, 2012). A construct is said to be reliable if the composite reliability value is above 0.60 (Nunnaly, in Ghozali, (2012).The results of composite reliability can be seen in Table 3:

Table 3 Composite Reliability

	Composite Reliability
Human Resources (X1)	0.907
Understanding of Technical Specifications (X2)	0.880
Work Execution Method (X3)	0.906
Environment (X4)	0.929
Managerial (X5)	0.907
Quality Performance Supervising Consultant(Y)	0.920

Source: PLS Processed Results

Based on Table above, it can be explained that from the composite reliability provisions, it can be stated that the entire construct studied met the composite reliability criteria, namely the composite reliability value above 0.60, so that each construct was able to be positioned as a research variable. This indicates that compositely all variables have adequate internal consistency in measuring the measured latent variables/constructs so that they can be used in further analysis.

4) Cronbach Alpha

The reliability test with composite reliability above can be strengthened by using the Cronbach alpha value. A variable can be declared reliable or fulfills cronbach alpha if it has a cronbach alpha value > 0.6. The following is the Cronbach alpha value of each variable:

Table 4 Cronbach Alpha

	Cronbach Alpha
Human Resources (X1)	0.874
Understanding of Technical Specifications (X2)	0.733
Work Execution Method (X3)	0.843
Environment (X4)	0.905
Managerial (X5)	0.871
Quality Performance Supervising Consultant (Y)	0.890

Source:PLS Processed Results

Based on the test results in the table above, it can be seen that the cronbach alpha value of each research variable is > 0.60. Thus these results can indicate that each research variable has met the requirements of the Cronbach alpha value, so it can be concluded that all variables have a high level of reliability.

5) Average Variance Extracted (AVE)

AVE aims to test the reliability of the construct variable. AVE aims to determine that the construct variable has a good discriminant validity value. The AVE value is declared satisfactory if > 0.5. The results of the AVE test are shown in Table 5 as follows:

Table 5 AVE Value

	AVE
Human Resources(X1)	0.662
Understanding of Technical Specifications(X2)	0.785
Work Execution Method (X3)	0.762
Environment (X4)	0.726
Managerial (X5)	0.663
Quality Performance Supervising Consultant(Y)	0.697

Source:PLS Processed Results

In Table 5, the AVE value of Human Resources (X1) is 0.662; variable Understanding of Technical Specifications (X2) of 0.785; Work Implementation Method variable (X3) is 0.762, Environmental Variable (X4) is 0.726, Managerial Variable (X5) is 0.663 and the Supervisory Consultant Quality Performance variable (Y) is 0.697. At the critical limit of 0.5, the indicators in each construct have converged with the other items in one

measurement. The results of the AVE value for the indicator block that measures the construct can be declared to have a good discriminant validity value. This means that all construct variables are declared reliable.

4.1.2. Inner Model

In assessing the model with PLS, it begins by looking at the R-Square for each dependent latent variable. Changes in the R-Square value can be used to assess the effect of certain independent latent variables on the dependent latent variable whether it has a substantive effect. For endogenous latent variables in structural models which have R2 results of 0.67 indicating that the model is "Strong", R2 of 0.33 indicates that the model is "moderate", R2 of 0.19 indicates that the model is "weak" (Ghozali, 2014). The PLS output is as described below:

Table 6 R-Square Value

	R Square	**R Square Adjusted**
Supervisory Consultant Quality Performance (Y)	0.825	0.812

Based on Table 6, Variables of Human Resources (X1), Understanding of Technical Specifications (X2), Work Execution Methods (X3), Environment (X4) and Managerial (X5) that affect the Quality Performance of Supervisory Consultants (Y) in the structural model have a value of R2 of 0.825 which indicates that the model is "Strong".The suitability of the structural model can be seen from Q2, as follows:

Q2= 1 – [(1 – R1)]
= 1 – [(1 – 0.825)]
= 1 – [(0.175)]
= 0.825

The results of the Q2 calculation show that the Q2 value is 0.825 which indicates that the Q2 value is in the "strong" category. According to Ghozali (2016), the value of Q2 can be used to measure how well the observed values are generated by the model and also the estimated parameters. So, the value of Q2 predictions made by the model is considered to have predictive relevance.

4.1.3. Hypothesis Test

In this study, Partial Least Square (PLS) was used to test the research hypothesis. Here is a picture of the proposed PLS model.

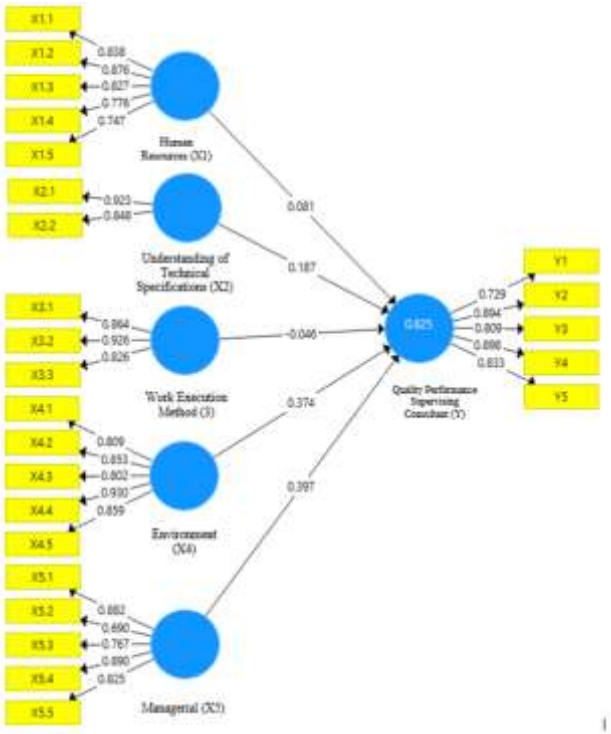

Figure 2 PLS Research Model

Based on the picture above can form a structural equation, namely:

$$(Y)= 0.081\ X1 + 0.187\ X2 – 0.046\ X3 + 0.374\ X4 + 0.397\ X5$$

Based on the picture above shows the Human Resources variable, Technical Specification Understanding variable, Work Implementation Method Variables, Environmental Variables and Managerial Variables affecting the Quality Performance of Supervisory Consultants.

To answer the research hypothesis, the t-statistics can be seen in the following table:

Table 7 Hypothesis Testing Results

	(O)	**(|O/STDEV|)**
Human Resources (X1) -> Quality Performance Supervisory Consultant (Y)	0.081	0.971
Understanding of Technical Specifications (X2) -> Quality Performance of Supervisory Consultants (Y)	0.187	2,004
Work Implementation Method (X3) -> Quality Performance of Supervisory Consultant (Y)	-0.046	0.369
Environment (X4) -> Quality Performance of Supervisory Consultant (Y)	0.374	2,568
Managerial (X5) -> Quality Performance of Supervisory Consultant (Y)	0.397	3.125

Based on the results of hypothesis testing can be seen:

1) The Human Resources variable has no significant effect on the Supervisory Consultant Quality Performance variable (T statistic value 0.971 <1.96).
2) The Variable Understanding of Technical Specifications has a significant effect on the Supervising Consultant Quality Performance variable (T-statistical value of 2004 > 1.96).
3) The variable of Work Implementation Method has no significant effect on the Quality Performance variable of the Supervisory Consultant (T statistic value 0.369 < 1.96).
4) Environmental variables have a significant effect on the Quality Performance of Supervisory Consultants (T statistic value 2.568 > 1.96).
5) Managerial variables have a significant effect on the Quality Performance of Supervisory Consultants (T statistic value 3.125 > 1.96).

4.2. Discussion

4.2.1. The Influence of Human Resources on the Quality Performance of Supervisory Consultants

Based on the results of the study, it was proven that Human Resources had a positive and insignificant effect on the Quality Performance of Supervisory Consultants. The positive relationship between Human Resources and Quality Performance of Supervisory Consultants indicates that the higher the quality of Human Resources will improve the Quality Performance of Supervisory Consultants. The results of this study support the research of Ferdian et al (2018) which states that Human Resources have a very low influence on the Quality Performance of Supervisory Consultants.However, the results of this study do not support the findings Azis et al., (2016) which states that the workforce has a positive and significant impact on the Quality Performance of the Supervisory Consultant.

4.2.2. The Effect of Understanding Technical Specifications on Quality Performance of Supervisory Consultants

Based on the results of the study, it is proven that the understanding of technical specifications has a positive and significant effect on the Quality Performance of the Supervisory Consultant. The positive relationship between Understanding of Technical Specifications and Quality Performance of Supervisory Consultants indicates that the higher Understanding of Technical Specifications will improve Quality Performance of Supervisory Consultants.The results in this study are in line with the findingsAzis et al., (2016)who stated that Understanding of Technical Specifications can positively and significantly affect the Quality Performance of the Supervisory Consultant.

4.2.3. The Influence of Work Execution Methods on Quality Performance of Supervisory Consultants

Based on the results of the study, it was proven that the Work Implementation Method had a negative and insignificant effect on the Quality Performance of the Supervisory Consultant. The negative relationship between the Work Execution Method and the Quality Performance of the Supervisory Consultant indicates that more and more Work Execution Methods will reduce the Quality Performance of the Supervisory Consultant.The results in

this study do not support the findingsAzis et al., (2016)which suggests that the Work Implementation Method can positively and significantly affect the Quality Performance of the Supervisory Consultant.

4.2.4. Environmental Influence on Quality Performance of Supervisory Consultants

Based on the research results, it is proven that the environment has a positive and significant effect on the Quality Performance of the Supervisory Consultant. The positive relationship between the Environment and the Quality Performance of the Supervisory Consultant indicates that the better the environmental conditions will increase the Quality Performance of the Supervisory Consultant. The results of this study support the research of Ferdian et al (2018) which states that the environment has a high influence on the Quality Performance of Supervisory Consultants.

4.2.5. Managerial Influence on Quality Performance of Supervisory Consultants

Based on the results of the study, it is proven that managerial has a positive and significant effect on the Quality Performance of Supervisory Consultants. The positive relationship between Managerial and Quality Performance of the Supervisory Consultant indicates that the better the Managerial is carried out, the better the Quality Performance of the Supervisory Consultant. The results of this study do not support the research of Ferdian et al (2018) which states that managerial has a low influence on the Quality Performance of Supervisory Consultants.

5. CONCLUSION

Based on the analysis that has been done, we can concluded that Human Resources have a positive and significant impact on the Quality Performance of Supervisory Consultants. Likewise, Understanding of Technical Specifications has a positive and significant impact on the Quality Performance of Supervisory Consultants. Meanwhile, the Method of Work Execution has a negative and insignificant effect on the Quality Performance of the Supervisory Consultant. In addition, the environment has a positive and significant effect on the Quality Performance of Supervisory Consultants. And Managerial has a positive and significant effect on the Quality Performance of Supervisory Consultants.

Based on the findings and conclusion above, the author suggest that The Supervisory Consultant can pay attention to the factors of Human Resources, Understanding of Technical Specifications, Work Execution Methods, Environment and Managerial to be able to improve Quality Performance. Besides, this study focuses on the factors of Human Resources, Understanding of Technical Specifications, Work Execution Methods, Environment and Managerial which can affect the Quality Performance of Supervisory Consultants. For further research, it is recommended to use other variables that can affect the Quality Performance of Supervisory Consultants.

REFERENCES

Aziz, S., Putranto, E. H. D., & Yunianto, H. (2016). Analisis Faktor-Faktor Kinerja Konsultan Pengawas Yang Berpengaruh Terhadap Waktu Dan Mutu Pekerjaan Proyek

Peningkatan Jalan Di Kabupaten Probolinggo. *Jurnal Info Manajemen Proyek*, *7*(2), 38–49.

Dimyati, H., & Nurjaman, K. (2014). *Manajemen Proyek*. CV Pustaka Setia.

DPUPR Grobogan. (2019). *Pentingnya Pemahaman Spesifikasi Teknis Untuk Pekerja Di Dinas Pupr Kabupaten Grobogan. Dpupr.* Grobogan.Go.Id. https://dpupr.grobogan.go.id/info/info-terkini/309-hananti-2019

Ervianto, W. I. (2009). *Manajemen Proyek Konstruksi*. Graha Ilmu.

Ferdian, T., Isya, M., & A.Rani, H. (2018). Analisis Hubungan Dan Pengaruh Faktor-Faktor Berkontribusi Terhadap Kinerja Mutu Proyek Konstruksi Jalan Di Provinsi Aceh. *Jurnal Arsip Rekayasa Sipil Dan Perencanaan*, *1*(4), 174–183. https://doi.org/10.24815/jarsp.v1i4.12468

Ghozali, I. (2012). *Partial Least Square : Konsep, Teknik dan AplikasiSmartPLS 2.0 M3*. Badan Penerbit Universitas Diponegoro.

Ghozali, I. (2014). *Structural Equation Modeling Metode Alternatif Dengan Partial Least Squares (PLS)* (Edisi 4). Badan Penerbit Universitas Diponegoro.

Grønmo, S. (2019). *Social Research Methods: Qualitative, Quantitative and Mixed Methods Approaches*. SAGE Publications.

Haryanto, M. P. (2018). *Perimbangan Penerapan Sanksi Pidana Dalam Uu No 32 Tahun 2009 Tentang Perlindundan Dan Pengelolaan Lingkungan Hidup Dihubungkan Dengan Asas Subsidiaritas Hukum Pidana*. Fakultas Hukum Unpas.

Kumari, F., Hakim, A., & Mubarak, H. (2015). *Study Pelacakan (Tracer Study) Alumni Prodi Akidah Filsafat Di Kalimantan Selatan.* LP2M IAIN Antasari Banjarmasin.

Liani, R. D. (2016). *Kajian Tentang Manajemen Pemeliharaan Studi Kasus Pada Pemeliharaan Jalan Nasional.* Universitas Atma Jaya Yogyakarta.

Mahsun, M. (2006). *Pengukuran Kinerja Sektor Publik* (Cet. Perta). BPFE Yogyakarta.

Peraturan Menteri PUPR Nomor 13/PRT/M/2011. (2011). *Peraturan Menteri PUPR Nomor 13/PRT/M/2011 Tentang Tata Cara Pemeliharaan dan Penilikan Jalan*. Pemerintah Indonesia.

Permono, L., & Mulyono, T. (2015). *Analisis Pengaruh Penempatan Tenaga Kerja Lapangan, Serta Ketersediaan Material dan Peralatan Konstruksi Terhadap Capaian Mutu (Studi Kasus Jalan Nasional D.I Yogyakarta)*. Unila, Bandar Lampung.

Tallama, P. (2014). *Pengaruh Pengawasan Terhadap Efisiensi Dan Efektivitas Tenaga Kerja Pada Proyek Konstruksi Di Yogyakarta.* Universitas Atma Jaya Yogyakarta.

Tomigolung, F., Sumajouw, M. D. J., & Tarore, H. (2013). Analisis Kinerja Konsultan Pengawas Pada Proyek Jalan Dan Jembatan Di Sulawesi Utara. *Jurnal Ilmiah Media Engineering*, *3*(2), 79–83.

Tunas, F., Tjakra, J., Inkiriwang, R. L., Teknik, F., Teknik, J., Universitas, S., Ratulangi, S., & Belakang, L. (2020). Metode Pelaksanaan Pekerjaan Balok Dan Plat Lantai Dua Pada Pembangunan Mall Pelayanan Publik (Mpp) Manado. *Jurnal Sipil Statik*, *8*(6), 901–910.