ANALYSIS OF THE PERFORMANCE OF SUPERVISORY CONSULTANTS ON PROJECTS IN THE FIELD OF HOUSING AND RESIDENTIAL AREAS OF EAST JAVA PROVINCE

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Abstract

The Supervisory Consultant is the party assigned by the project owner to realize the planned planning results according to the development of good settlement infrastructure facilities and utilities. The government, especially in the PRKP Division of East Java Province, collaborates with service providers, one of which is a supervisory consultant, in this case encouraging supervisory consultants to increase understanding of customer satisfaction. This research has several objectives, namely identifying variables of project management performance of PRKP activities in East Java Province; measuring the level of customer satisfaction from the project management performance of PRKP activities in East Java Province. The research stages taken in this study, namely Research background, Formulation of problems and research objectives, Literature study, Preliminary survey, Data collection, Data testing, Data analysis. The analysis method used is the customer satisfaction index method. The data is processed using the MS.Excel and SPSS programs. The results of the analysis with the customer satisfaction index show a CSI value of 63.55% which means satisfied. which is low and needs to be improved.

Keywords: *Feasibility Analysis, Customer Satisfaction, Project Management, Supervisory Consultant*

1. INTRODUCTION

The development of infrastructure and utility facilities (PSU) is an important element in the development of the life of the nation and state, in fostering national unity, state territory and community functions as well as in promoting public welfare. The important role of roads, among others, supports the economic, social and cultural fields and the environment, where its development is carried out through a regional development approach in order to achieve balance and equitable development between regions, form and strengthen national unity to strengthen national defense and security, and form a spatial structure in order to realize national development goals. The infrastructure and utility facilities (PSU) project in the Housing and Settlement Area of East Java Province consists of roads, channels, culverts and embankments.

In implementing the project, the project owner, in this case the government, works with service providers consisting of planning consultants, contractors, and supervisory consultants. The success of the project is of course largely determined by the construction actors involved, one of which is the supervisory consultant. The involvement of supervisory consultants is very important in the implementation of project development. It aims to be able to control, implement work, can establish a communication relationship between the highest level to the lowest level, so that every work implementation can produce good productivity and quality. To achieve this goal requires the performance of

supervisory consultants who are able to adjust to field and work conditions. (I komang, juniada, I putu, 2021).

In this study, an analysis of the performance of supervisory consultants on supervisory consultants for projects in the Housing and Settlement Area Sector in East Java Province was carried out. The purpose of this study is to determine the performance criteria and the main criteria for the performance of supervisory consultants in the implementation of construction projects in the Housing and Settlement Area of East Java Province.

2. LITERATURE REVIEW

2.1. Consultancy Services Company

Consulting services are professional service companies that require certain expertise in various scientific fields that prioritize thinking. Consultancy services such as planning and supervision consultants are professional service personnel who are capable or experts in the field of construction services, so that they are able to carry out construction activities starting from planning, supervision to handover of work. (Presidential Regulation No. 70 of 2012 concerning the second amendment to Presidential Regulation No. 54 of 2010 concerning Government Procurement of Goods/Services).

2.2. Previous Research

Research conducted by (Yoneda, Yuono, and Nursetyo 2023) aims to determine the performance of supervisory consultants related to road construction using the CSI method(Sugiyono and Kuantitatif 2009).

Research conducted by (Putra, Pagehgiri, and Ariyanta 2021) aims to determine the performance criteria of supervisory consultants in the implementation of the puskesmas building construction project in Tabanan Regency.

Research conducted by (Amir 2021), aims to analyze the factors that affect the performance of supervisory consultants on road construction projects in East Kalimantan Province, analyze the most dominant factors affecting the performance of supervisory consultants on road construction projects in East Kalimantan Province and determine strategies that must be carried out to improve the performance of supervisory consultants on road construction projects in East Kalimantan Province.

3. RESEARCH METHODS

The research location is in the East Java Provincial Housing and Settlement Area Division project where the locations are spread throughout the province of East Java.

3.1. Research Stages
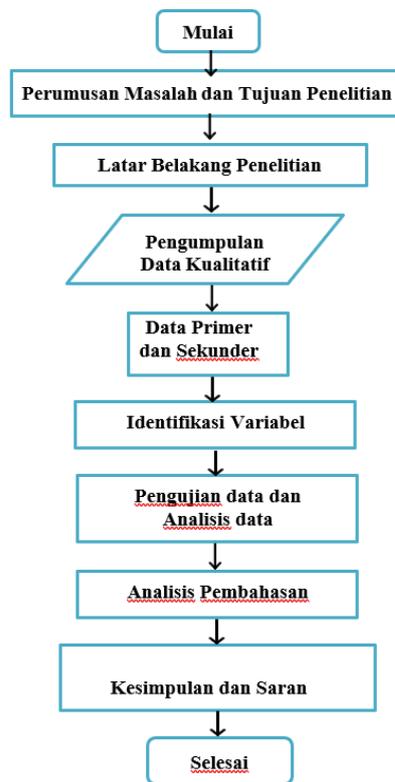
Source: Author's Processed Data (2023)
Figure 1. Flowchart of Research.

3.2. Subjects and Objects of Research

The subject of this research is the satisfaction of project owners who fund project implementation activities in the Housing and Settlement Area of East Java Province. Meanwhile, the object of this research is the performance of supervisory consultants.

3.3. Types of Research Methods

The types of methods used in this research are qualitative research and quantitative research(Creswell 2017). Qualitative research was conducted to identify the variables of project activity management performance of the Housing and Settlement Area in East Java Province. Qualitative research has a small portion as an introduction only for adjustments between theory and practice. The adjustment is between the project management performance variables contained in PMBOK and the project management performance variables found in the field. Quantitative research was conducted to measure the level of project owner satisfaction from the management performance of project activities in the Housing and Settlement Area in East Java Province. In addition, quantitative research was conducted to identify variables from the performance of project management activities in the Housing and Settlement Sector that need to be proposed to be improved or maintained in order to increase customer satisfaction. Quantitative research has a large portion as the core of this research.

3.4. Research Data

Data sources in this qualitative research use primary data and secondary data. Primary data sources in this qualitative research are by means of unstructured interviews with several sources. The resource persons in question are project owners who fund project activities in the Housing and Settlement Area of settlements in East Java Province and the construction uses contractor services with a maximum construction value of IDR 200,000,000. Meanwhile, the secondary data source in this qualitative research is by means of a literature review. Secondary data is used as a guideline in conducting case studies. The guidelines in question are the stages and variables of project management performance adopted from PMBOK.

3.5. Sampling Technique

The sampling technique in this study is purposive sampling which is included in the non-probability sampling group. The consideration of using purposive sampling is because the subjects and objects studied have criteria specifically determined by the researcher. In addition, another consideration is project data on activities in the housing and settlement sector in East Java Province with a maximum construction value of IDR 200,000,000 in the span of 2023. Therefore, this research cannot be generalized and can only apply to the criteria (research boundaries) specifically determined by the researcher. The number of samples required in qualitative research with interviews is a minimum of two sources. Meanwhile, the number of samples required in quantitative research by distributing questionnaires is a minimum of thirty validated respondents.

3.6. Sample Drawing Technique

In this study, research instruments were used to measure the variables of project management performance in supervisory consultants. The variables of project management performance, namely: (1) integration management; (2) scope management; (3) schedule management; (4) cost management; (5) quality management; (6) resource management; (7) communication management; (8) risk management; (9) procurement management; and (10) stakeholder management. The variables of project management performance are then given a satisfaction level assessment score and an importance level assessment score on a Likert scale(Martilla and James 1977). The satisfaction level assessment describes the project owner's satisfaction with the project management performance of the contractor. The answer of each respondent with a Likert scale is given a score, as follows:

a. Respondents who answered "Very Satisfied" had a score of 4;
b. Respondents who answered "Satisfied" had a score of 3;
c. Respondents who answered "Dissatisfied" had a score of 2;
d. Respondents who answered "Very Dissatisfied" had a score of 1; and
e. Respondents who answered "No Answer" had a score of 0.

The importance level assessment describes the project owner's expectations of the contractor's project management performance. The answers of each respondent with a Likert scale are given a score, as follows:

a. Respondents who answered "Very Important" had a score of 4;
b. Respondents who answered "Important" had a score of 3;

c. Respondents who answered "Not Important" had a score of 2;

d. Respondents who answered "Very Unimportant" had a score of 1; and

e. Respondents who answered "No Answer" had a score of 0.

From the variables of project management performance and the measurement scale with a Likert scale, the next is the design of the questionnaire. In designing this questionnaire, each variable is given an understanding or definition to make it easier for respondents to understand the questions. Therefore, the questionnaire design can be seen in the following table:

Table 1. Draft Questionnaire by the Author (2023).

No	Supervisory Consultant Performance	SATISFACTION LEVEL					LEVEL OF IMPORTANCE				
		1 = Very Dissatisfied					1 = Very Dissatisfied				
		2 = Not Satisfied					2 = Not Satisfied				
		3 = Enough					3 = Enough				
		4 = Satisfied					4 = Satisfied				
		5 = Very Satisfied					5 = Very Satisfied				
		1	2	3	4	5	1	2	3	4	5
1	Supervision of OHS implementation during construction										
2	Conformity of project reports with actual conditions in the field										
3	Project supervision and control is carried out regularly and periodically										
4	Controlling the timeliness of project completion										
5	Speed of dealing with problems (cost and time) that occur in the field										
6	Quality control of work according to DED and Technical Specifications										
7	Neatness (aesthetics) of the final work										
8	Competent and qualified human resources										
9	Handling problems/disruptions (cost, quality, time, conflicts, etc.) on the job										
10	Coordination and Communication with related parties										
11	Inform the risks that may occur during construction										
12	Fulfillment of job functions										
13	Qualified and competent supervisory personnel										
14	Speed in responding to project owner requests										
15	Project closing (BAST) Handover										
16	Final work report										

Source: Author's Processed Data (2023)

4. RESULTS AND DISCUSSION
4.1. Validity and Reliability Testing Results

In this research, qualitative data analysis is needed to identify the variables of project management performance of Housing and Settlement Area project activities in East Java Province. Qualitative data analysis by conducting pre-field analysis and analysis while in the field. Pre-field analysis is carried out on data from preliminary studies or secondary data to determine the focus of research. This research focuses on the stages and variables of project management that have been formulated in PMBOK.

Analyze while in the field by conducting several interviews. Interviews were conducted with two resource persons by asking questions related to the stages of project management that have been formulated in the PMBOK. The resource persons for interviews in this study were the project owner, namely the Housing and Settlement Area Division of the East Java Province Public Housing, Settlement Area and Cipta Karya Office and the contractor. Furthermore, the answers from the interviews were identified to find what variables are needed from project managemen t(Giese and Cote 2000).

The results of the field analysis were then adjusted to the analysis before going to the field. The adjustment is between the project management performance variables contained in PMBOK and the project management performance variables found in the field(Kerzner 1982).

In determining the number of samples needed, there is a need for calculation. Determination of the data sample uses the slovin formula in the calculation. The slovin formula can be written as:

$$N = N/(1 + N\ e^2)$$
$$= 48 / (1 + 48\ x\ 0{,}05^2)$$
$$= 42{,}85714286 \quad = 43 \text{ (rounding off)}$$

Respondents in this study were the project owner, namely the Housing and Settlement Area Division of the East Java Province Public Housing, Settlement Area and Cipta Karya Office and the contractor.

The stages and variables of the interview results can be seen in the following table:

Table 2. Stages And Variables of Project Management Performance From Interviews (Analysis, 2023)

No.	Project Management Performance Variables	Project Initiation and Planning Phase	Project Implementation, Supervision, and Control Phase	Project Closing Phase

1	**Integration Management**		Supervision of OHS implementation during construction	Project closing (BAST) Handover
2	**Scope Management**		Conformity of project reports with actual conditions in the field	Final work report
3	**Schedule Management**		Project supervision and control is carried out regularly and periodically	
			Controlling the timeliness of project completion	
4	**Cost Management**		Speed of dealing with problems (cost and time) that occur in the field	
5	**Quality Management**		Quality control of work according to DED and Technical Specifications	
6	**Resource Management**		Neatness (aesthetics) of the final work	
			Competent and qualified human resources	
7	**Communication Management**		Handling problems/disruptions (cost, quality, time, conflicts, etc.) on the job	
			Coordination and Communication with related parties	
8	**Risk Management**		Inform the risks that may occur during construction	
9	**Procurement Management**		Fulfillment of job functions	
			Qualified and competent supervisory personnel	
10	**Stakeholder Management**		Speed in responding to project owner requests	

Source: Author's Processed Data (2023)

After the questionnaires were distributed, further validity and reliability testing was carried out to determine the validity and reliability of the questionnaire using the r moments table with a significance of 0.05, the significance value for 0.05 in the table is 0.349. The criteria for testing the validity are if r_{count} is greater than r_{table}, the item is declared to have passed the test and vice versa if r_{count} is smaller than r_{table}, it is declared

that it does not pass the test in the following table 4.1 it can be seen that r count is greater than r_{table} so it can be concluded that the questionnaire items are valid. For further data can be seen in table 3 below:

Table 3. The Results of the Validity Test of Supervisory Quality

Item	r_{table}	r_{count}	Summary
V.1	0,2940	0,736	passed the test
V.2		0,730	passed the test
V.3		0,764	passed the test
V.4		0,465	passed the test
V.5		0,701	passed the test
V.6		0,675	passed the test
V.7		0,748	passed the test
V.8		0,689	passed the test
V.9		0,780	passed the test
V.10		0,716	passed the test

Source: Research Data

The calculated r value is greater than the r_{table}, which is 0.2490. It can be concluded that the 10 statement items on the questionnaire are declared valid.

4.2. Reliability Test Results

The results of the reliability test explain that all respondents can understand the instructions and procedures for filling out the questionnaire, we can see in the following table.

Table 4. Validity Test Results of Supervisory Quality

		N	%
Cases	Valid	43	100
	Exclude	0	
	Total	43	100

Source: Processed data (2023)

Table 5. Realibility Statistics

Cronbach's Alpha	N of Items
'.880	10

Source: Processed data (2023)

4.3. Data Analysis

Table 6. CSI Criteria Table

No	Index Value	Assessment Criteria
1	0,00% < CSI ≤ 20,00%	Very Dissatisfied
2	20,01% < CSI ≤ 40,00%	Not Satisfied
3	40,01% < CSI ≤ 60,00%	Enough
4	60,01% < CSI ≤ 80,00%	Satisfied
5	80,01% < CSI ≤ 100,00%	Very Satisfied

Source: Research Data

Table 7. CSI Calculation Results

Project Management Performance Variables	Mean Importance Score (MIS)	Weight Factor (WF)	Mean Satisfaction Score (MSS)	Weight Score (WS)
Integration Management	3,3488	10,6%	3,3721	31,95%
Scope Management	2,9535	9,40%	3,1395	29,53%
Schedule Management	3,4651	11,03%	3,5233	38,88%
Cost Management	3,0465	9,70%	3,0233	29,33%
Quality Management	3,6279	11,55%	3,256	41,38%
Resource Management	3,2442	10,33%	3,070	32,922%
Communication Management	3,1395	10%	3,209	31,279%
Risk Management	3,0465	9,70%	2,953	30,014%
Procurement Management	3,0116	9,59%	3,047	28,889%
Stakeholder Management	2,5116	8%	3,163	19,535%
Weight Total = ΣWeight Score				**317,75%**
Customer Satisfaction Index = (Weight Total / scale (5)) * 100%				**63,55%**

Source: Research Data

From the table, it can be seen the process and results of calculating the satisfaction index with the CSI method on the performance of supervisory consultants where in the index table a satisfaction index of **63.55% (Satisfied)** is **obtained**.

5. CONCLUSION

Based on the results of the customer satisfaction index (CSI) analysis in this study, which is in the scale range of 60% < CSI 63.55% ≤ 80%, which means that the project owner is "satisfied" with the performance of the supervisory consultant for the activities of the Housing and Settlement Area in East Java Province (Khasani, R. R., Wibowo, M. A., & Hatmoko 2013).

Settlement areas in East Java Province. Therefore, evaluation efforts based on the results of the customer satisfaction index (CSI) analysis are expected to supervisory consultants to maintain and at the same time improve their performance (Tjiptono 2019).

In this study, the criterion that has the lowest score is the stakeholder management variable, so that supervisory consultants should be more understanding to manage the needs and desires of owners who have certain interests. And for further research, it is hoped that it can expand the research on the performance research of planning consultants and contractors as well as the owner in this case is the Housing and Settlement Area of East Java Province. And the next research can be further improved by understanding work indicators and more detailed research on consultant performance so that more accurate data is obtained.

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