

Analysis of Construction Service User Satisfaction on Bridge Contractor Performance in Banjarmasin City

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ABSTRACT: User satisfaction can be defined as a condition in which the needs and expectations of users can be met through the products that are consumed. In general, user satisfaction can be said to be someone's feeling of pleasure or disappointment from the comparison between the products purchased according to their expectations. In this case, users can feel satisfied with the services provided in the form of service performance and construction products that are in accordance with the wishes or even exceed expectations.

This study aims to analyze the level of satisfaction of service users with construction service providers based on the performance of the bridge contractor. The research was conducted on 25 respondents who used construction services, represented by officials holding the authority for the use of goods / or services owned by the region (PPK), Heads of Fields, technical activities implementing officials (PPTK), supervisors / technical teams or project owner representatives.

The analysis used two method, first is the Customer Satisfaction Index (CSI) and the second one is Importance Performance Analysis (IPA). Based on the results of the analysis and calculations, the Customer Satisfaction Index (CSI) value is 60.14%, which means that the construction service users are satisfied with the performance of the contractor. Furthermore, with the Importance Performance Analysis (IPA), it can be seen that there are 5 performance variables that are the main priority for improving performance, There are speed of handling problems (cost, quality, time, conflict, etc.) that occur in the field, safety and health management system (K3) during the construction, routine and good administration, quality management system during construction, and accuracy in selecting suppliers and subcontractors.

KEYWORDS: satisfaction of construction service users, performance of contractor, customer satisfaction index (CSI), importance performance analysis (IPA).

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I. INTRODUCTION

User satisfaction can be defined as a condition where the needs, wants, and expectations of users can be fulfilled through the products that are consumed. In general, user satisfaction can be said to be someone's feeling of pleasure or disappointment from the comparison between the products purchased according to their expectations or not (Walker, et al., 2001). In this case, users can feel satisfied with the services provided in the form of service performance and construction products that are in accordance with the wishes or even exceed expectations.

The difference in perceptions between service users and providers should be a reference for service providers in order to continue to improve the quality of service and product performance given the increasingly competitive market in the construction industry.

Based on the results of direct observations on the implementation of bridge improvement activities at the Banjarmasin City Public Works and Spatial Planning Agency, there are several problems caused by the low performance of contractors, among others, the contractor is not orderly in administration, minimal application of work safety during construction, and is less responsive to problems in the field and demand for service users.

The problems above are not only considered to occur in one project, but also occur in 2 bridge improvement projects at once, namely the Tatah Bangkal Bridge improvement project and Kiwi I Bridge Improvement, which were implemented in 2019. The problem is considered incompatible with service users' expectations of Bridge Contractor's performance, so an analysis is needed to determine how satisfied service

users are with the performance of the bridge contractors in Banjarmasin City.

II. LITERATURE REVIEW

Satisfaction is the feeling of pleasure or disappointment of someone who appears after comparing the performance (result) of the product thought against the expected performance (or results). If the performance is below expectations then the customer is not satisfied. If the performance meets expectations, the customer is satisfied. If performance exceeds expectations, the customer is very satisfied or happy (Kotler, 2006). So, satisfaction is a function of perception or impression of performance and expectations.

According to Wibowo (2008), performance comes from the notion of performance, namely as a result of work or work performance. Performance is about doing the job and the results it achieves. In addition, according to Armstrong and Baron in Wibowo, (2008), performance is the result of work that has a strong relationship with organizational strategic objectives, customer satisfaction, and contributes to the economy. The term performance is often used to describe the achievement or level of success of an individual or group of individuals.

III. RESEARCH METHODS

RESEARCH DATA

In data collection the steps taken by the author in obtaining data in the form of secondary data collection first to compile a questionnaire which will later become primary data. Secondary data is in the form of reviews from and research journals related to the satisfaction of construction service users and aspects of contractor performance. Based on the results of the literature study, initial data will be obtained about the concept of construction service user satisfaction which is then used to make a questionnaire in order to collect primary data. In addition, other secondary data needed is project data in the form of general project information such as project name, project year, project value, year of implementation, project duration, name of PPTK / PPK / technical staff involved, obtained from the Department of Public Works and Spatial Planning Banjarmasin bridge field.

Primary data collection is carried out by the technique of disseminating questionnaires to users of contractor services namely user / project owner in this case represented by PPK, Head of Field, PPTK and technical teams who have competencies in their field in the Department of Public Works and Spatial Planning Banjarmasin bridge field.

DATA ANALYSIS

In this study descriptive analysis was used to classify respondents based on position, experience, level of education, and project information in the form of project value, year of project implementation and duration of project.

Questionnaire data that has been disseminated is carried out validity and reliability testing with the help of SPSS, namely with spearman test for questionnaire point validity test (variable) and alpha combach coefficient method for reliability. Variables used in this study are variables X and Y. Where variable X to express the satisfaction of the performance of bridge contractors and variable Y to express the interests/expectations of the performance of bridge contractors.

To see the level of satisfaction of construction users used customer satisfaction index (CSI) method in the method will be done:

1. Calculation of mean important score (MIS) and Mean Satisfaction Score (MSS).
2. Calculation of weight importance factor (WF)
3. Calculation of weighted score (WS)
4. Calculation of total weighted average (WAT)
5. Determination of customer satisfaction index (CSI) value

Based on the results of the calculation of the scale range, the satisfaction criteria are as follows:

$0\% < \text{CSI} \leq 20\%$ = Very dissatisfied

$20\% < \text{CSI} \leq 40\%$ = Dissatisfied

$40\% < \text{CSI} \leq 60\%$ = Quite satisfied

$60\% < \text{CSI} \leq 80\%$ = Satisfied

$80\% < \text{CSI} \leq 100\%$ = Very satisfied

To analyze the priority factor of improving the performance of bridge contractors will be used Importance Performance Analysis (IPA) method. The priority factor is the research variables that fall into quadrant A (Top Priority). In the application of the IPA method will use a scale of 5 levels against the

expectations and performance of bridge contractors as seen in Table II.3

Table II.3 Likert Measurement Scale Assessment

Skor	Satisfaction Level	Importance Level
1	Very dissatisfied	Very unimportant
2	Dissatisfied	Unimportant
3	Quite Dissatisfied	Less Important
4	Satisfied	Important
5	Very satisfied	Very important

IV. RESULT AND DISCUSSION

VALIDITY

From the results of the validity test on 25 respondents, that the Spearman rank correlation coefficient (R) is greater than the critical value (R 0.05 = 0.396), so it can be concluded that all items are valid.

RELIABILITY

From the test results it can be seen that all α obtained is greater than the minimum value of reliability, so that all research question items are declared reliable.

The minimum value of reliability specified was 0.60. If the value $\alpha > 0.60$ means that a variable can be said to be reliable.

RECAPITULATION OF QUESTIONARY RESULT DATA

Res	A. Bridge Contractor Performance Satisfaction (X)																														
	X.1	X.2	X.3	X.4	X.5	X.6	X.7	X.8	X.9	X.10	X.11	X.12	X.13	X.14	X.15	X.16	X.17	X.18	X.19	X.20	X.21	X.22	X.23	X.24	X.25	X.26	X.27	X.28	X.29	X.30	
1	3	4	3	3	2	2	3	2	3	3	3	2	2	2	3	4	3	3	3	3	2	2	3	3	3	3	3	4	3	3	4
2	4	3	3	3	3	4	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	2	2	3	3	3
3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	3	3	4	4	3	3	3	3	3	3	2	2	3	4	4	4	4	4	4	3	4	3	4	4
5	3	3	3	2	3	3	2	2	3	3	3	3	2	3	2	3	2	3	2	2	2	3	2	2	3	2	3	3	3	3	3
6	3	4	3	3	3	3	1	1	1	1	3	1	1	1	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2
7	3	4	4	3	4	4	3	3	3	2	3	3	2	2	3	3	3	3	3	3	3	3	3	2	3	2	2	3	2	3	
8	3	3	3	2	3	3	3	2	3	3	3	3	2	2	2	3	2	3	3	3	3	3	3	2	3	2	3	3	3	3	
9	3	3	3	2	3	4	2	2	3	3	3	3	2	2	2	3	2	3	2	2	3	2	2	2	3	2	3	3	3	3	
10	3	2	2	2	2	2	3	2	3	3	3	3	2	2	2	3	3	3	2	3	2	3	3	3	2	3	3	3	2	3	
11	3	2	3	2	3	3	2	2	3	3	3	3	2	3	2	3	2	3	2	2	2	3	2	2	2	3	2	3	3	3	
12	4	4	4	3	3	3	4	3	3	4	4	4	4	4	3	4	3	3	3	4	3	3	4	3	4	3	4	4	4	3	4
13	3	3	3	3	3	4	3	3	3	2	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2	3	2	2	3	2	3
14	3	3	3	3	3	4	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	3	3
15	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
16	3	2	2	2	3	2	3	2	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	2	3
17	4	4	4	4	4	4	4	3	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4
18	4	4	4	4	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	3	4	3	3	4
19	3	4	4	4	4	4	3	3	3	4	3	3	4	3	4	3	3	3	3	4	4	3	3	3	3	3	4	3	4	4	3
20	3	3	3	4	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
21	4	4	4	4	4	4	4	3	4	4	4	4	3	3	3	4	4	4	3	3	4	4	4	4	4	4	4	4	3	3	3
22	3	3	3	2	3	3	4	3	3	3	3	3	2	2	2	3	3	3	3	3	3	3	3	3	2	3	2	3	3	3	3
23	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4
24	3	3	3	3	2	2	3	3	3	3	3	2	2	2	2	3	3	3	3	2	3	3	2	3	2	2	3	3	3	3	3
25	3	3	3	3	2	2	3	2	3	3	3	2	2	2	3	3	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3
Σ	82	82	81	75	77	81	79	65	77	76	81	75	66	67	69	80	73	76	71	75	77	72	77	68	77	68	77	76	74	80	
Rata	2	3,28	3,28	3,24	3,00	3,08	3,24	3,16	2,6	3,08	3,04	3,24	3,00	2,64	2,68	2,76	3,20	2,92	3,04	2,84	3,00	3,08	2,88	3,08	2,72	3,08	2,72	3,08	3,04	2,96	3,20

Res	B. Bridge Contractor Performance Interests (Y)																														
	Y.1	Y.2	Y.3	Y.4	Y.5	Y.6	Y.7	Y.8	Y.9	Y.10	Y.11	Y.12	Y.13	Y.14	Y.15	Y.16	Y.17	Y.18	Y.19	Y.20	Y.21	Y.22	Y.23	Y.24	Y.25	Y.26	Y.27	Y.28	Y.29	Y.30	
1	4	4	5	4	4	5	4	4	5	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	5	4	4	5	
2	4	4	5	4	5	4	3	4	3	4	3	3	3	3	4	4	4	4	4	3	4	3	4	3	4	3	4	4	5	4	
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6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
7	4	5	5	4	5	4	4	4	4	4	5	5	5	4	4	4	4	3	4	5	4	4	4	4	4	4	4	4	4	4	
8	4	5	5	4	4	5	3	4	3	4	4	4	5	4	5	3	4	4	4	4	5	3	4	3	4	4	4	4	4	4	
9	3	4	3	3	3	5	3	4	4	4	4	4	4	4	5	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	
10	4	4	4	4	5	5	3	5	3	4	4	4	4	4	4	3	4	4	3	3	4	4	4	4	4	4	3	4	4	4	
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12	4	5	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	4	4	4	4	4	5	5	5	4	5	5	5	5	
13	4	5	5	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	
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16	4	4	4	4	4	5	3	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	5	3	4	5	4	
17	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
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23	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4
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25	4	4	4	3	4	5	3	4	3	4	4	4	4	3	4	3	4	4	4	4	3	4	4	4	4	3	4	4	4	4	4
Σ	97	101	100	96	103	107	87	98	89	100	101	101	103	95	104	91	97	96	94	93	101	89	97	94	101	88	102	106	105	100	
Rata2	3,88	4,04	4,00	3,84	4,12	4,28	3,48	3,92	3,56	4,00	4,04	4,04	4,12	3,80	4,16	3,64	3,88	3,84	3,76	3,72	4,04	3,56	3,88	3,76	4,04	3,52	4,08	4,24	4,20	4,00	

Res	B. Bridge Contractor Performance Interests (Y)																														
	Y.1	Y.2	Y.3	Y.4	Y.5	Y.6	Y.7	Y.8	Y.9	Y.10	Y.11	Y.12	Y.13	Y.14	Y.15	Y.16	Y.17	Y.18	Y.19	Y.20	Y.21	Y.22	Y.23	Y.24	Y.25	Y.26	Y.27	Y.28	Y.29	Y.30	
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16	4	4	4	4	4	5	3	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	5	3	4	5	4	
17	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
18	4	4	4	4	4	4	3	4	3	4	4	3	4	4	4	3	4	3	3	4	4	3	4	3	4	3	4	3	4	4	4
19	4	4	3	4	3	4	3	3	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	4	4	4	4	4	4	
20	4	4	4	4	4	4	3	4	3	4	4	4	4	4	3	4	3	3	3	3	3	3	3	3	3	4	3	4	4	4	
21	4	4	4	4	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	3	3	4	3	3	3	4	3	4	4	4
22	4	3	3	4	4	4	3	3	4	3	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	4	3	4	
23	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
24	3	3	3	3	4	4	4	4	3	3	4	4	4	4	3	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	3
25	4	4	4	3	4	5	3	4	3	4	4	4	4	3	4	3	4	4	4	4	3	4	3	4	4	4	3	4	4	4	4
Σ	97	101	100	96	103	107	87	98	89	100	101	101	103	95	104	91	97	96	94	93	101	89	97	94	101	88	102	106	105	100	
Rata2	3,88	4,04	4,00	3,84	4,12	4,28	3,48	3,92	3,56	4,00	4,04	4,04	4,12	3,80	4,16	3,64	3,88	3,84	3,76	3,72	4,04	3,56	3,88	3,76	4,04	3,52	4,08	4,24	4,20	4,00	

CUSTOMER SATISFACTION INDEX (CSI) ANALYSIS

The Customer Satisfaction Index (CSI) is used to determine the level of satisfaction of construction service users towards bridge contractors as a whole. To see the results of the analysis of the calculation of satisfaction with the CSI method can be seen in Table IV.5

Table IV.5 Results of the Customer Satisfaction Index (CSI) Calculation Analysis

Variabel	Rata-Rata Skor Kepuasan (Mean Satisfaction Score (MSS))=Jumlah Skor Kepuasan tiap variabel / Jumlah Responden	Weight Importance Factor (WF) = MIS/(Total MIS) x 100%	Rata-Rata skor Kepentingan (Mean Importance Score (MIS))= Jumlah Skor Kepentingan tiap variabel / Jumlah Responden	Weighting Score (WS) = WF x MSS
X.1	3,28	3,30	3,88	10,82
X.2	3,28	3,44	4,04	11,28
X.3	3,24	3,41	4,00	11,05
X.4	3,00	3,27	3,84	9,81
X.5	3,08	3,51	4,12	10,81

X.6	3,24	3,64	4,28	11,79
X.7	3,16	2,96	3,48	9,35
X.8	2,60	3,34	3,92	8,68
X.9	3,08	3,03	3,56	9,33
X.10	3,04	3,41	4,00	10,37
X.11	3,24	3,44	4,04	11,15
X.12	3,00	3,44	4,04	10,32
X.13	2,64	3,51	4,12	9,27
X.14	2,68	3,24	3,80	8,68
X.15	2,76	3,54	4,16	9,77
X.16	3,20	3,10	3,64	9,92
X.17	2,92	3,30	3,88	9,64
X.18	3,04	3,27	3,84	9,94
X.19	2,84	3,20	3,76	9,09
X.20	3,00	3,17	3,72	9,51
X.21	3,08	3,44	4,04	10,60
X.22	2,88	3,03	3,56	8,73
X.23	3,08	3,30	3,88	10,16
X.24	2,72	3,20	3,76	8,70
X.25	3,08	3,44	4,04	10,60
X.26	2,72	3,00	3,52	8,16
X.27	3,08	3,47	4,08	10,69
X.28	3,04	3,61	4,24	10,97
X.29	2,96	3,58	4,20	10,60
X.30	3,20	3,41	4,00	10,91
Total		100	117,44	

Weighted Average Total (WAT) = Σ Weighting Score

300,70

Customer Satisfaction Index (CSI) = (Weighted Average Total (WAT)/High Scale (HS)) x 100%

60,14

Based on the calculation results in Table IV.5, the Customer Satisfaction Index (CSI) for the bridge contractor performance variable is 60.14%. This value is in the range of the Customer Satisfaction Index (CSI) values close to between (60% < CSI ≤ 80%) which can be said that construction service users are satisfied. With construction service user satisfaction with the contractor's performance, it is hoped that the bridge contractor can continue to improve its performance to achieve a better level of construction service user satisfaction.

PRIORITY FACTOR ANALYSIS (Important Performance Analysis)

Analysis of priority factors regarding the performance level of the bridge contractor is used Cartesian diagram analysis (Important Performance Analysis). By first calculating the average value of satisfaction and the level of importance of each variable which can be seen in Table IV.6.

Table IV.6 Important Performance Analysis (IPA) Results

No.	Variabels	Satisfaction/ Performance Score (Xi)	Average Score of Satisfaction / Performance (\bar{X}_i)	Score of Importance / Expectations (Yi)	Average Score of Importance / Expectations (\bar{Y}_i)
1	X.1	82	3,28	97	3,88
2	X.2	82	3,28	101	4,04
3	X.3	81	3,24	100	4,00
4	X.4	75	3,00	96	3,84
5	X.5	77	3,08	103	4,12
6	X.6	81	3,24	107	4,28
7	X.7	79	3,16	87	3,48
8	X.8	65	2,60	98	3,92
9	X.9	77	3,08	89	3,56
10	X.10	76	3,04	100	4,00
11	X.11	81	3,24	101	4,04
12	X.12	75	3,00	101	4,04
13	X.13	66	2,64	103	4,12
14	X.14	67	2,68	95	3,80
15	X.15	69	2,76	104	4,16

16	X.16	80	3,20	91	3,64
17	X.17	73	2,92	97	3,88
18	X.18	76	3,04	96	3,84
19	X.19	71	2,84	94	3,76
20	X.20	75	3,00	93	3,72
21	X.21	77	3,08	101	4,04
22	X.22	72	2,88	89	3,56
23	X.23	77	3,08	97	3,88
24	X.24	68	2,72	94	3,76
25	X.25	77	3,08	101	4,04
26	X.26	68	2,72	88	3,52
27	X.27	77	3,08	102	4,08
28	X.28	76	3,04	106	4,24
29	X.29	74	2,96	105	4,20
30	X.30	80	3,20	100	4,00
Total		2254	90,16	2936	117,44
			$(\bar{x}) = \frac{\sum Xi}{K \text{ (Banyaknya variabel)}}$		3,005
			$(\bar{y}) = \frac{\sum Yi}{K \text{ (Banyaknya variabel)}}$		3,915

From the calculations of Table IV.6 above, it is known that the mean satisfaction value (\bar{X}) on the axis (x) and the mean of interest (\bar{Y}) on the axis (y) with the point of intersection of the axes (x, y) is obtained from the total average value. for the level of satisfaction (\bar{x}), which is 3.005 and the total average value for the level of importance (\bar{y}) is 3,915. This value is then plotted into a Cartesian diagram which will be the boundary for each quadrant.

It is known from the Cartesian diagram or Importance-Performance matrix that the performance variables (factors) of the bridge contractor are divided into four quadrants, namely quadrant a, quadrant b, quadrant c, and quadrant d which can be seen in Figure IV.7.

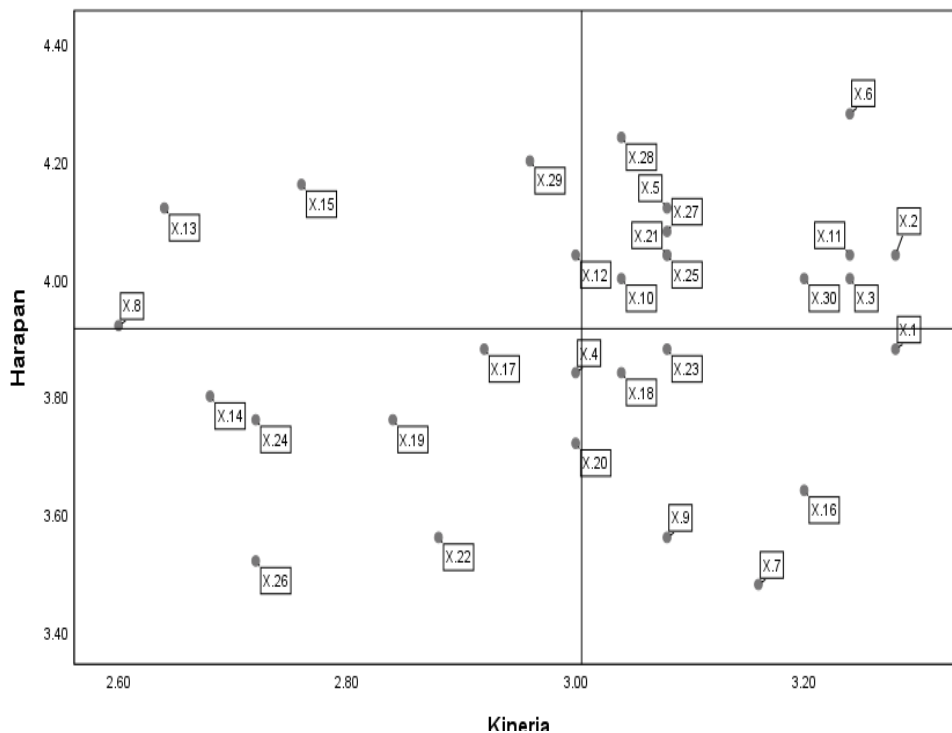


Figure IV.7 Cartesian Diagram (IPA) of Bridge Contractor Performance

This research will focus on discussing the variables that are in quadrant A, it can be seen in the picture above that there are 5 (five) variables in quadrant A, where 3 (three) of these variables are in accordance with the background of the problems described, namely: speed of handling problems (cost, quality, time, conflict, etc.) that occur in the field (X.13), occupational safety and health (K3) systems during construction (X.15), routine and orderly administration (X.8) Meanwhile, for variables (factors), other additional problems that have recently emerged from the results of the distribution of the questionnaire are the problems of the quality management system during construction (X.29) and the accuracy in selecting suppliers and subcontractors (X.12).

PRIORITY FACTOR ANALYSIS WITH ACTUAL FACTS IN THE FIELD

An analysis of the variables in quadrant A (priority factors) is carried out by comparing whether these variables actually occur in the field in an ongoing project in 2020 (Observation). The results obtained are that almost all of the 5 variables also occur in the field.

STRATEGY OR SOLUTION

The determination of the strategy is carried out after the process of analyzing the priority factors with actual facts in the field, after the suitability is known, it is followed by an expert interview to find out the best solution or strategy to improve the contractor's performance. The solutions or strategies that can be concluded from the experts based on the results of the interviews conducted are as follows:

1. Contractors can selectively select competent and certified human resources (HR) to be involved in the project (General Superintendent, K3 Officer, Administrative Staff). For example: choosing a General Superintendent (GS) who has competence by looking at the curriculum vitae (work experience) and who has a certificate of expertise (SKA) for bridge experts at least intermediate. Because the role of General Superintendent in a project is very important from the initial stage of construction to the completion of the project. A General Superintendent must have the ability to be able to handle various kinds of problems in the field. General Superintendent plays a role in checking the tools, materials used, determining and selecting effective and efficient work methods as well as in supervising labor. A competent General Superintendent can also act as a liaison to communicate with PPK, Head, PPTK or field supervisors in reporting work progress or problems being faced in the field. This is useful for reducing conflicts or misunderstandings between service users and contractors, supervisory consultants and the community. Apart from GS, skilled K3 officers also play a role in overcoming occupational safety and health problems in the field. Meanwhile, competent and professional Administrative Staff also play a role in preparing reports including monthly certificates (MC) and archiving the results of the tests carried out. If the selection of human resources (HR) is carried out correctly, various problems that occur in the field can be resolved immediately.
2. Before starting to carry out the work, the contractor can first conduct a field survey / factory visit to several material suppliers who will later work with the contractor.

V. CONCLUSIONS AND SUGGESTIONS

CONCLUSION

The conclusions that can be made from this research are:

1. The level of satisfaction of construction service users on the performance of bridge contractors can be seen from the value of the Customer Satisfaction Index (CSI) based on the results of the analysis, the value is 60.14%, this value lies in the range between $60\% < \text{CSI} \leq 80\%$. From the results of this analysis it can be concluded that the construction service users are satisfied with the performance of the bridge contractor.
2. The priority factors for improving contractor performance are those in (Quadrant A), namely sequentially starting from the most important factors, namely: Speed of handling problems (cost, quality, time, conflict, etc.) that occur in the field (X. 13), Occupational safety and health (K3) systems during construction (X.15), Routine and orderly administration (X.8), Quality management systems during construction (X.29), Accuracy in selecting suppliers and subcontractors (X.12).
3. The strategy or solution that needs to be done by the contractor can selectively choose competent human resources (HR) who are competent and have the appropriate certificates and experience who will be involved in the project such as: General Superintendent, K3 Officer and Administrative Staff. In addition, the contractor can first conduct a field survey / factory visit to several material suppliers who will later work with the contractor before starting work.

SUGGESTIONS

Suggestions for further research are as follows:

1. Based on the research results, it is hoped that in the future the bridge contractors in the city of Banjarmasin can improve the performance criteria that are included in quadrant A as a top priority for repairs in accordance with the order of priority.
2. It is hoped that further research can increase the number of respondents to the end user, and expand the scope of the study area.
3. It is necessary to carry out further studies on how effective the implementation of the proposed strategy is.
4. In order to determine a more effective strategy, it is recommended that field visits be carried out while the project is still in progress, not when it is nearing completion.
5. It is necessary to add more expert respondents who were interviewed to determine the strategy.
6. It is necessary to discuss further about the effects of cases of medium classification which are few but have high value.

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