

Factors Affecting Service Quality at BPN Kota Batam

Abstract

The main role of government agencies in the community is how the community can receive the services provided properly and be satisfied. In the implementation process, there are still several things that must be addressed so that the quality of service is maximized. As a result, this topic was chosen to find out the components that affect the quality of public services. The research applies a quantitative approach by taking direct data using a questionnaire. There were 97 respondents and then the data were processed using SPSS 16. The result is that organizational structure and employee ability have a positive impact on service quality at the Batam City National Land Agency, but not on the service facilities variable.

Keyword: Public Service, Service Quality

1. Introduction

The government uses public services as a performance measure that can be visually evaluated by the public based on the quality of services provided (Parjadinata et al., 2020). The main focus of governments and public institutions is to improve the quality of public services. Although many efforts have been made, complex challenges remain in managing the factors that influence service outcomes. The level of public satisfaction tends to be high if the institution maintains its service quality (Engdaw, 2020).

Public institutions are obliged to carry out their duties properly, including fulfilling their obligations in serving the community (Firmansyah & Rosy, 2021). For this reason, the government requires an efficient structure and organization, appropriate policies, strategic planning, and optimal resource management. Government is basically a service to the community (Hendriyadi & Musnaini, 2021).

The National Land Agency (BPN) of Batam City, in accordance with Presidential Regulation No. 17 of 2015, is responsible for agrarian, land and spatial planning. Organizational structure, infrastructure, employee capability are some of the components that affect the quality of public services. A clear organizational structure and the ability of employees to provide information and meet the needs of the community are essential. Adequate infrastructure also increases accessibility and positive experiences for the public.

Referring to some previous explanations that service facilities, employee abilities, organizational structure have a positive effect on service quality (Pristiria et al., 2022), service facilities affect patient satisfaction (Sundoro et al., 2022), service facilities and employee competence have a positive influence (Parjadinata et al., 2020).

The above facts are the reason why the research was conducted. Plus, looking at the official website shows that 52% of people find it difficult to get the information they need. With the aim that to find out which factors are the main ones in future improvements.

2. Research Method

Sample and Data Collection

This study focuses on male and female individuals from the population who have completed or received services at the National Land Agency of Batam City. Data collection was carried out using questionnaires given to the community totaling 97 samples with reference to Lemeshow's theory. Lemeshow's formula is used because the exact number of

the population is unknown (Riyanto & Hatmawan, 2020) The first part of the questionnaire includes identity such as the respondent's name, age, and gender. The second part contains question items for each dependent and independent variable. The following is the formula for determining the sample by Lemeshow:

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Notes:

n = total sample

Z = 95% confidence Z score = 1.96

P = highest estimate = 0.5%

d = alpha (0.10)

$$n = \frac{3,8416(0,5)(1-0,5)}{0,01}$$

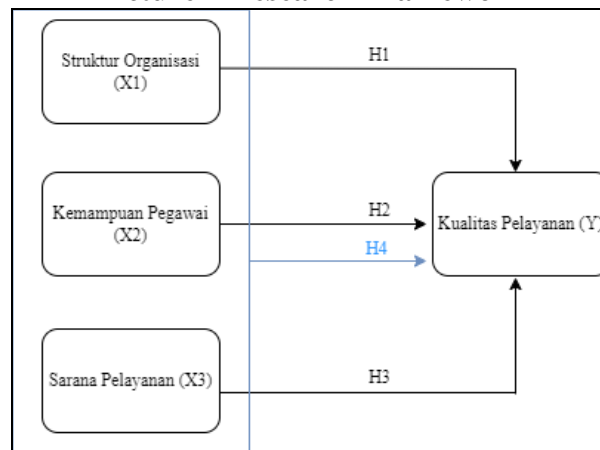
n = 96,04

The total number of respondents collected was 96.04 which was adjusted to 97.

Research Instruments and Framework

To measure service facilities, organizational structure, employee capabilities on service quality, researchers adopted those used by previous studies that had been modified (Pristiria et al., 2022). For service quality indicators, it also refers to previous research (Zeithaml et al., 1988). This is the research framework:

Picture 1 Research Framework



Source: Self-processed (2023)

Looking at the research framework above, it can be seen that the hypotheses developed are:

H1 = Organizational structure has a positive effect on service quality

H2 = Employee ability has a positive effect on service quality

H3 = Service facilities have a positive effect on service quality

H4 = Employee ability, service facilities, organizational structure simultaneously have a positive effect on service quality

Data Analysis

Quantitative method with questionnaires as primary data was used in this study to determine variables that impact on the quality of public services at the National Land Agency of Batam City. The procedure starts with testing validity, reliability, coefficient of determination, classical assumptions, multiple linear regression, hypothesis testing..

3. Result and Discussion

Descriptive Statistics

To state the level of achievement of respondents' answers to the variables of employee ability (X2), service facilities (X-3), organizational structure (X1), and service quality (Y), based on the respondents the results are below:

Table 1 Descriptive Statistics

Item	N	Min	Max	Mean	Std.dev
X ₁	97	3,000	4,000	3,631	0,483
X ₂	97	2,000	4,000	3,612	0,502
X ₃	97	2,000	4,000	3,876	0,345
Y	97	2,000	4,000	3,570	0,504

Source: Self-processed, IBM SPSS (2024)

From table 1 above, the results of distributing questionnaires with 97 respondents. The test results of the organizational structure variable (X1) found a minimum value of 3.000, a maximum value of 4.000, a standard value (mean) of 3.631 standard deviation of 0.483. The test results of the employee ability variable (X2) found a minimum value of 2.000, a maximum value of 4.000, a standard value (mean) of 3.612 and a standard deviation of 0.502. The test results of the service facilities variable (X3) found a minimum value of 2,000, a maximum value of 4,000, a standard value (mean) of 3,876 and a standard deviation value of 0.345. The test output of the service quality variable (Y) found a minimum value of 2,000, a maximum value of 4,000, a standardized value (mean) of 3,570 and a standard deviation of 0.504..

Validity Test

The validity test is the process of directing the instrument used with the aim of seeing its quality (Riyanto & Hatmawan, 2020). To test validity, the SPSS program is used with the Pearson correlation method with $\alpha = 5\%$. If r_{count} is higher than r_{table} , each survey item is considered valid. The following table illustrates the results:

Tabel 2 Validity Test

Item	R _{count}	R _{table}	Description
X1.1	0,529	0,1966	Valid
X1.2	0,519	0,1966	Valid
X1.3	0,524	0,1966	Valid

X1.4	0,615	0,1966	Valid
X1.5	0,622	0,1966	Valid
X1.6	0,606	0,1966	Valid
X2.1	0,598	0,1966	Valid
X2.2	0,401	0,1966	Valid
X2.3	0,384	0,1966	Valid
X2.4	0,490	0,1966	Valid
X2.5	0,618	0,1966	Valid
X2.6	0,724	0,1966	Valid
X3.1	0,860	0,1966	Valid
X3.2	0,876	0,1966	Valid
Y1.1	0,475	0,1966	Valid
Y1.2	0,315	0,1966	Valid
Y1.3	0,525	0,1966	Valid
Y1.4	0,629	0,1966	Valid
Y1.5	0,409	0,1966	Valid
Y1.6	0,568	0,1966	Valid
Y1.7	0,669	0,1966	Valid
Y1.8	0,535	0,1966	Valid
Y1.9	0,609	0,1966	Valid
Y1.10	0,558	0,1966	Valid

Source: Self-processed, IBM SPSS (2024)

From table 2 above, all variables are declared valid. This can be seen from the comparison between the rcount of each question item is greater than the rtable. The table above shows that all question items have rhitung criteria greater than rtable (0.1966) which means that the measuring instrument used is valid..

Reliability Test

The reliability test is used to determine the extent to which the measurement output used is reliable (Riyanto & Hatmawan, 2020). A Cronbach Alpha value greater than 0.60 displays that the variables are consistent. The test results can be seen below:

Table 3 Reliability Test

Variable	Cronbach Alpha	R _{table}	Description
Organizational Structure (X1)	0,627	0,60	Valid
Employee Skills (X2)	0,631	0,60	Valid
Service Facilities (X3)	0,672	0,60	Valid
Quality Service (Y)	0,717	0,60	Valid

Source: Self-processed, IBM SPSS (2024)

Because all variables have a Cronbach Alpha value that exceeds 0.60, table 3 above shows that the instruments used are reliable or trustworthy.

Multiple Linear Regression Analysis

The value of the independent variable is considered to determine how well the dependent value is predicted by multiple linear regression (Ghozali, 2018). In this study, the equation is used as follows:

$$KP = \alpha + \beta_1.SO + \beta_2.KPeg + \beta_3.SP + \varepsilon$$

Description:

- KP : Service Quality
- α : Constant
- $\beta_1, \beta_2, \beta_3$: Regression Coefficient
- SO : Organizational Structure
- KPeg : Employee Skills
- SP : Service Facilities
- ε : Error Term

The following table shows the results of the regression coefficient from this study:

Table 4 Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	10,383	3,384		3,068	0,003
Organizational Structure	0,662	0,132	0,444	5,024	0,000
Employee Skills	0,443	0,140	0,289	3,160	0,002
Service Facilities	0,221	0,373	0,053	0,591	0,556

Source: Self-processed, IBM SPSS (2024)

Table 4 produces the following regression equation:

$$Y = 10,383 + 0,662x_1 + 0,443x_2 + 0,221x_3$$

Keterangan:

- Y : Service Quality
- α : Constant
- X_1 : Organizational Structure
- X_2 : Employee Skills
- X_3 : Service Facilities

Below is an explanation of the multiple linear equations that have been displayed above:

The constant value of 10.383 means that if all independent variables (organizational structure, employee ability, service facilities) are equal to zero, then the value of the dependent variable (service quality) is 10.383.

The regression coefficient for X_1 shows a positive value of 0.662, indicating that a one unit increase in the value of X_1 will have an impact on increasing the value of variable Y by

0.662. The regression covariance for X2 displays a positive value of 0.443 indicating that a one unit increase in the value of X2 will have an impact on increasing the value of variable Y by 0.443. The regression coefficient for X3 displays a positive value of 0.221, indicating that a one-unit increase in the value of X3 will have an impact on increasing the value of variable Y by 0.221. From this explanation, it can be seen that the three independent variables have a dominant impact on service quality.

Normality Test

In normally distributed research, the normality test is used to determine the existence of a regression model, as well as independent and dependent variables (Ghozali, 2018). To perform the normality test, the Kolmogorov Smirnov method is used according to the following conditions:

- If the significance value (Sig) or probability is less than 0.05, the data is considered not normally distributed.
- If the significance value (Sig) or probability is more than 0.05, the data is considered normally distributed. Untuk penelitian ini, uji normalitasnya sebagai berikut:

Table 5 Normality Test

Unstandardized Residual	
Asymp. Sig. (2-tailed)	0,712

Source: Self-processed, IBM SPSS (2024)

The value of Asymp. Sig (2-tailed) is 0.712 which means it shows that the data is normally distributed because 0.712 is greater than 0.05

Multicollinearity Test

To find out how the independent variables in the regression model relate to each other, the multicollinearity test is used (Ghozali, 2018). In the structure of the regression model, a tolerance value of less than 0.100 and a variation inflation factor (VIF) of more than 10.00 displays that there is a weak relationship between independents (Ghozali, 2018). The following is a multicollinearity analysis in this study:

Table 6 Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Organizational Structure	0,809	1,236
Employee Skills	0,754	1,327
Service Facilities	0,785	1,274

Source: Self-processed, IBM SPSS (2024)

Because the tolerance of the independent variables is more than 0.100 and VIF is less than 10.00, it shows that there is no multicollinearity.

F Test

If the independent affects the dependent variable as a whole, the F test is used. In other words, it can be said that this test is to measure the total significance of the independent influence on the dependent (Ghozali, 2018). The decision guidelines consist of:

- Independent variables affect the dependent simultaneously if the $F_{count} > F_{table}$ value or the probability is less than the significance value ($Sig \leq 0.05$).
- The dependent variable is not influenced by the independent variables simultaneously if the F_{count} value is lower than the F_{table} value or the probability is greater than the significance value ($Sig < 0.05$).

The F test used in this research is as follows:

Model	F	Sig.
Regression	21,785	,000 ^b

Source: Self-processed, IBM SPSS (2024)

Based on the results of the F test in table 7 above, it is obtained that F_{count} is 21.785 which has a significance of 0.000 less than 0.05. Therefore, it can be concluded that there is an impact by simultaneously organizational structure, service facilities, employee abilities on service quality.

T Test

The effect of the independent variable on the dependent is assessed through the T test, which determines whether the independent has a significant or partial effect on the dependent (Ghozali, 2018). The decision guidelines consist of:

- The independent variable affects the dependent variable if the t_{count} exceeds the t_{table} or the probability does not reach the significance level ($Sig < 0.05$).
- The independent variable does not affect the dependent variable if the t_{count} does not exceed the t_{table} or the probability reaches the significance level ($Sig > 0.05$).

The T test used in this research is as follows:

Model	t	Sig.
(Constant)	3,068	,003
Organizational Structure	5,024	,000
Employee Skills	3,160	,002
Service Facilities	,591	,556

Source Self-processed, IBM SPSS (2024)

H1 : Organizational structure has a positive effect on service quality

From table 8 above, it is known that the tcount value of organizational structure is 5.024 and the significance value is 0.000. From the significance value, it is known that it does not reach 0.05, which means it has a positive impact on service quality. Therefore, the first temporary answer in this research is accepted. This result is in line with the Service Profit Chain theory which states that satisfied and motivated employees are the key to providing high-quality services, which in turn increases public satisfaction and loyalty. This finding is supported by the research of Parjadinata et al. (2020) which found that organizational structure has a positive effect on service quality.

H2 : Employee ability has a positive effect on service quality

From table 8 above, it is known that the tcount value of employee ability is 3.160 and the significance value is 0.002. From the significance value, it is known that it does not reach 0.05, which means that it has a positive impact on service quality. Therefore, the second provisional answer in this research is accepted. This output is in line with the Service Profit Chain theory which states that competent and motivated employees are the key to providing high-quality services, which increases public satisfaction and loyalty. This research is supported by the research of Parjadinata et al. (2020) which found that employee ability has a positive effect on high quality service.

H3 : Service facilities have a positive effect on service quality

From table 8 above, it is known that the tcount value of service facilities is 0.591 and the significance value is 0.556. From the significance value, it is known to exceed 0.05, which means that it does not have a positive impact on service quality. Therefore, the third provisional answer in this research is not accepted. This output does not support the concept of Service Profit Chain theory which states that a supportive work environment and adequate facilities contribute to employee satisfaction and motivation, which in turn improve service quality, community satisfaction, and community loyalty.

Determination Coefficient Test

The coefficient of determination test is used to determine how much the independent variable affects the dependent variable simultaneously based on the R-Square value. The ability of the independent variables to explain is very limited, as indicated by the low Adjusted R2 value (Sugiyono, 2019). The coefficient of determination of this research data is shown in the table below:

Table 9 Determination Coefficient Test

Model	R Square	Adjusted R Square
1	,413	,394

Source: Self-processed, IBM SPSS (2024)

With reference to the above results of the calculation of the coefficient of determination recorded in the previous table, the total Adjusted R Square value is 0.413 or 41.3%. This figure displays that the variables of organizational structure, employee abilities, and service facilities collectively contribute significantly to service quality by 41.3%. While the remaining 58.7% is influenced by other factors not examined in this study.

4. Conclusion

Service quality at the Batam City National Land Agency is positively influenced by organizational structure and employee capabilities based on the data analysis and explanation above, and for the service facilities variable does not have a positive effect on service quality at the Batam City National Land Agency. Therefore, this public agency should ensure that the facilities and infrastructure provided support the efficiency, comfort, reliability of services in order to produce a more memorable feeling to the community which will ultimately improve service quality.

Future research is expected to expand the scope and add respondents from this study. Future research can also test other variables that may affect service quality.

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