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## **Influence of Quality, Procedures, and Service Facilities on Community Satisfaction with Hydrological Data Services at the Sulawesi II Gorontalo River Basin Center**

**Deby Rita Karundeng<sup>1\*</sup>, Mohamad Afan Suyanto<sup>2</sup>, Arsin Mokoagow<sup>3</sup>**

Universitas Gorontalo, Indonesia | [deby.rk21@gmail.com](mailto:deby.rk21@gmail.com)<sup>1</sup>

Universitas Gorontalo, Indonesia | [afansuyanto@gmail.com](mailto:afansuyanto@gmail.com)<sup>2</sup>

Universitas Gorontalo, Indonesia | [arsinmokoagow@gmail.com](mailto:arsinmokoagow@gmail.com)<sup>3</sup>

Corresponding Email: [deby.rk21@gmail.com](mailto:deby.rk21@gmail.com)\*

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### **Abstract**

This research aims to determine and analyze the influence of service quality, service procedures and service facilities on community satisfaction with hydrological data services at the Sulawesi II Gorontalo River Regional Office. The multiple linear regression quantitative analysis model is used to analyze the influence of the independent variable on the dependent variable. The research results show that overall service quality, service procedures and service facilities influence public satisfaction, but for service quality the influence is not that significant. This shows that increasing community satisfaction is jointly influenced by service quality, service procedures and service facilities.

**Keywords:** Service quality, service procedures, service facilities, community satisfaction

### **Introduction**

The issue of improving the quality of public services is a hot issue in the current era of development (Supriatna, 2010). This is also in line with the opinion expressed by (Thoha, 2017) that public services are an indicator for assessing the quality of government administration in carrying out its duties and functions. Whether the public administration or government is good or not is seen as to how far its public services are in accordance with the demands, needs and expectations of society. In Law Number 25 of 2009 concerning public services (article 1) states that public services are activities or series of activities in order to fulfill service needs in accordance with statutory regulations for every citizen and resident for goods, services and/or administrative services provided by public service providers. Based on this theory, it shows that public services are related to activities carried out by the government to serve the community in order to achieve government and development goals.

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The low quality of public services provided by government officials creates a bad image for the government in society. Some people who have dealt with bureaucracy always complain and are disappointed with the services provided. There are some people who still think lowly of the performance of the bureaucracy. According to (Wu & Li, 2018) say that public satisfaction is determined by the quality of service and service procedures. Community satisfaction includes the overall level of satisfaction, suitability of services with community expectations, and the level of community satisfaction during the relationship with the agency. Satisfaction is a consequence of the comparison between the level of perceived benefits and the expected benefits (Poha et al., 2022). Community satisfaction is obtained from the results of service quality and optimal service procedures. To achieve quality, a procedure is needed in the form of technical specifications as a benchmark in carrying out public service activities.

Furthermore, in terms of standard public service procedures according to (Mahmudi & Abdoli, 2016) there are several things that need to be considered, namely first, the simplicity of service procedures should be easy to understand and not complicated. Second, clarity in technical and administrative matters. Third, the certainty of the implementation time of public services can be completed within the specified time period. Fourth, product accuracy. The public services provided must be accurate, correct, precise and legal. Fifth, completeness of adequate facilities and infrastructure as well as other supports including information technology. Sixth, process and product security. Public services provide a sense of security and legal certainty. There must be no intimidation or pressure on the community in the service. Seventh, easy access to places and locations as well as adequate service facilities, easily accessible to the public, and able to utilize information technology. Eighth, the comfort of the service environment must be orderly, orderly, provided with a comfortable, clean, tidy waiting room, a beautiful and healthy environment and equipped with supporting facilities, such as toilets, parking lots, places of worship, and so on. These standard public service procedures are very useful for providing direction to action for institutions providing public services. Apart from that, it is hoped that service users will feel satisfaction in the implementation process.

Furthermore, facilities are a benchmark for all services provided, and have a very high influence on community satisfaction, because the level of existing facilities also makes it very easy for people to carry out their activities and is comfortable to use existing facilities. Whether they realize it or not, today's public is very critical of the availability of facilities in public service offices, both in terms of the appearance of the building, parking area, waiting room, security and so on.

Community satisfaction is formed from the community's assessment of the performance of the apparatus in serving the community in accordance with their expectations. Thus, satisfaction occurs because there is a fulfillment of what is needed and expected by society. One of the government offices whose activities are to provide public services to the community is the River Region Hall.

Development in the Water Resources Sector under Central authority in Gorontalo Province is carried out by several River Region Centers as Technical Implementation Units (UPT) of the Ministry of Public Works in the regions. The Sulawesi II Gorontalo River Basin

Center is one of the Central Technical Implementation Units (UPT) in the region in the Water Resources Sector which is domiciled in Gorontalo Province which has duties according to its authority to represent the central government in the region in Development in the Water Resources Sector in the River Region, such as: others carry out the development of central obligations in the regions for the improvement of rivers and their tributaries, construction and repair as well as operation and maintenance irrigation networks, dam construction based on regional proposals and public services such as technical recommendations for licensing.

The role of the Sulawesi II Gorontalo River Basin Center, Directorate General of Water Resources, as a government agency which has the task of implementing Water Resources Management which includes Planning, Construction Implementation, Operations and Maintenance in the context of Water Resources Conservation, Water Resources Utilization and Water Damage Control in River Region. With the increasing number of problems related to water resources in Indonesia, especially in Gorontalo, we are required to improve further in increasing community satisfaction through service quality and optimal service procedures. The aim of this research is to analyze whether there is an influence of quality, procedures and service facilities on community satisfaction with hydrological data services at the Sulawesi II Gorontalo River Basin Center.

## **Literature Review**

Research regarding the analysis of the influence of quality, procedures and service facilities on community satisfaction is relatively widely available. However, the author has not found research results that specifically combine the three independent variables and the author has not found research conducted at the Sulawesi II Gorontalo River Regional Office. Several previous studies that are relevant to this research, both in terms of analysis, objectives and research objects are as follows.

(Aviana et al, 2020) Examining the Influence of Service Quality and Service Procedures on Community Satisfaction (Study of Issuing Recommendations for Space Allocation at the Tulungagung Regency Public Works and Spatial Planning Service). The research results show that: (1) The influence of service quality and service procedures has a positive and significant effect on community satisfaction in implementing services for issuing recommendations for space utilization. (2) The influence of service quality has a positive and significant effect on community satisfaction in implementing services by issuing recommendations for space use. (3) The influence of service procedures has a positive and significant effect on community satisfaction in providing services for issuing recommendations for space use. (4) The Service Quality variable has the most dominant influence on community satisfaction in implementing services by issuing recommendations for space use. Similar research results were also presented by (Vivera, 2010) The Influence of Service Quality and Service Procedures on Community Satisfaction (Study of the Environmental Development Program at SMPN 4 Bandar Lampung). It was concluded that the variables of service quality and service procedures had a partial or simultaneous effect on community satisfaction.

(Endang, & Cholida, 2017) examined the influence of facilities and service quality on

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passenger satisfaction at the Rajekwesi Terminal, Bojonegoro. Based on the results of data analysis, the facility and service quality variables do not have a positive and significant effect on passenger satisfaction at the Rajekwesi Bojonegoro terminal.

### **Research methods**

This research was conducted at the Sulawesi II Gorontalo River Basin Center (BWS) and this research was only carried out on all communities that needed data services Hydrology. The sampling technique was carried out by *accidental sampling*, Where *accidental sampling* is determining the sample based on criteria, namely anyone the researcher meets at the Sulawesi II Gorontalo River Region Office who receives hydrological data services. Based on considerations of the estimated time required for this research, the sample used in this research was 42 respondents. The data collection method used was by distributing a list of questions to respondents which became the basic research instrument.

The multiple linear regression quantitative analysis model is used to analyze the influence of independent variables so that it can answer the main problem as well as prove the hypothesis. The formulation of multiple linear regression analysis is as follows (Sumarsono, 2004):

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3$$

Information:

Y = Community Satisfaction Variable

X1 = Service Quality Variable

X2 = Service Procedure Variable

X3 = Service Facility Variable

b<sub>0</sub> = Constant

b<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub>, = Koefisien Regresi

### **Result and Discussion**

#### ***Partial Hypothesis Test (t – count test)***

To determine the magnitude of the influence of each independent variable on the dependent variable partially, a t test can be carried out. The t-test is significant if  $p < 0.05$ . Furthermore, to find out more about the results of the t-count test as intended, you can see the table below:

**Table 1.** Partial Summary of Test Results

Model		Coefficients <sup>a</sup>			T	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
	(Constant)	3.593	2.320		1.549	.130
1	Service Quality	.216	.122	.242	1.771	.085
	Service Procedures	.227	.109	.212	2.082	.044
	Service Facilities	.500	.133	.516	3.758	.001

a. Dependent Variable: Community Satisfaction

*Source: Data processed in 2022.*

Based on table 1, the summary of partial test results, the results of the regression equation can be arranged as follows:

$$Y = 3.593 + 0.242X_1 + 0.212X_2 + 0.516X_3$$

The results of the t-count test for the variable Service Quality (X1) show a value of 1,771 with a significance level of 0.085 at a 95% confidence level. Therefore, then the service quality variable (X1) can be said to have an insignificant effect on the community satisfaction variable assuming the other independent variables are constant. Thus, the hypothesis that partially states that service quality has a positive and significant effect on community satisfaction who receive hydrological data services at the Sulawesi II Gorontalo River Regional Office cannot be proven true. Thus Ha is rejected, because  $p = 0.085$  or  $p > 0,05$ .

The t-test results for the Service Procedure variable (X2) show a calculated t-value of 2.082 with a significance level of 0.044 at a 95% confidence level. Therefore, the Service Procedure variable can be said to have a positive and significant effect on the Community Satisfaction variable assuming the other independent variables are constant. Thus, the hypothesis which states that partially the variable that Service Procedures have a positive and significant effect on Community Satisfaction who receive hydrological data services at the Sulawesi II Gorontalo River Regional Office can be proven true. Thus Ha is accepted, because  $p = 0.044$  or  $p < 0.05$ .

The t-test results for the Service Facility variable (X3) show a calculated t-value of 3.758 with a significance level of 0.001 at a 95% confidence level. Therefore, the Service Facilities variable can be said to have a positive and significant effect on the Community Satisfaction variable assuming the other independent variables are constant. Thus, the hypothesis which states that partially the variable that Service Facilities has a positive and significant effect on the Satisfaction of the Community who receive hydrological data services at the Sulawesi II Gorontalo River Regional Office can be proven true. Thus Ha is accepted, because  $p = 0.001$  or  $p < 0.05$ .

The three independent variables as stated above mean that the independent variable Service Facilities has a dominant influence on Community Satisfaction.

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### ***Simultaneous Hypothesis Testing (F-count Test)***

Simultaneous testing is intended to determine whether there is a close relationship and influence of the independent variables (X1, R) and coefficient of determination ( $R^2$ ). For more details, see the following simultaneous test results recapitulation table:

**Table 2.** Simultaneous Recapitulation of Test Results

Elements of Earned	Value Testing
R (Correlation Coefficient)	0.813
R. Square (coefficient of determination)	0.662
Ajusted R Square	0.635
Std Error of the Estimate	1.569
F-rasio	24.778
Significance (meaningfulness)	0.000
N	42

*Source: Data in by 2022.*

The results of data processing with the help of the SPSS 23 program as shown in the table show that the results of the essential statistical test show a strong relationship between the independent variables (X1, X2 and the value is close to 1.

Next, to see the magnitude of the influence of the independent variable ( $X_i$ ) on the dependent variable (Y), you can see the magnitude of the coefficient of determination ( $R^2$ ), where is the coefficient of determination ( $R^2$ ) = 0.662. This shows that there is a significant influence between the independent variable ( $X_i$ ) on the dependent variable (Y) together the same (simultaneous) of 0.662 or (66.2%). Meanwhile, the remaining 33.8% was influenced by other independent variables which were not observed in this study. Or in other words the independent variables consist of Service Quality, Service Procedures and Service Facilities able to explain the dependent variable (Community Satisfaction) of 66.2%.

Based on the explanation above, hypothesis four states that; Service Quality, Service Procedures and Service Facilities simultaneously have a positive and significant (real) effect on Community Satisfaction who receive hydrological data services at the Sulawesi II Gorontalo River Regional Office.

### ***The Influence of Service Quality on Community Satisfaction***

The results of the multiple regression test show that good service quality will positively but not significantly influence the increase in community satisfaction, this is because the community served by the Sulawesi II Gorontalo River Regional Office has different backgrounds so this can cause differences in the values that form the basis of the community. This is in perceiving actual service quality based on public service standards, the basis of which is Decree of the Minister of PAN number 25 of 2004 concerning general guidelines for compiling a public satisfaction index for government agency service units.

Although the findings of the researchers above state that there is no significant influence

on the relationship between service quality and satisfaction of the people who receive hydrological data services at the Sulawesi II Gorontalo River Regional Office, in the researchers' opinion this aspect is necessary and even important to pay attention to and improve. This happens because something that is visible is much more clearly measurable than something that is not visible, such as officer discipline, officer responsibility, officer ability, speed of service and the officer's politeness and friendliness.

So, the researcher's assumption states that service quality is very important, but there are things that the public prioritizes more in getting the best service. The results of this research are the same as research (Endang & Cholidah, 2017), which states that service quality (Service Quality) does not partially have a positive and significant effect on passenger satisfaction at the Rajekwesi Bojonegoro terminal. However, this is different from the results of research conducted by (Aviana et al., 2020) and (Azahraty & Periyadi, 2018) which stated that there is a significant influence of the Service Quality variable on the Community Satisfaction variable.

### ***The Influence of Service Procedures on Community Satisfaction***

Service Procedures show a significant positive influence on Community Satisfaction who receive hydrological data services at the Sulawesi II River Basin Center, Gorontalo. Empirically, people who come to get data on hydrological problems, which is the authority of BWS Sulawesi II Gorontalo, must of course provide a positive/very good response, namely with clarity/consistency in the flow of services needed by the community. At this time, the public as applicants understands the flow of hydrological data services so that they can avoid the impression that submitting a request for hydrological data is complicated, ease of registration and the required information, the ability of service officers and good documentation of files, which ultimately has a positive impact on increasing community satisfaction.

From these empirical conditions, there is relevance/in line with the Decree of the Minister of PAN number 25 of 2004 concerning general guidelines for preparing community satisfaction indexes for government agency service units. Apart from that, there is also relevance/in line with previous research by (Aviana et al., 2010) and (Azahraty & Periyadi, 2018) which states that there is a significant influence from the Service Procedure variable on the Community Satisfaction variable. Furthermore, research (Najmi, 2017) also shows that service procedures have a significant effect on community satisfaction at the Liang Anggang Religious Affairs office, Banjarbaru City. Public service providers must have service procedures to ensure that quality services are provided by public service providers so that the people receiving the services feel a high value for the services. Without clear procedures, it is very likely that the services provided will fall short of public expectations. That Service Procedures have a significant effect on community satisfaction.

### ***The Influence of Service Facilities on Community Satisfaction***

The Sulawesi II Gorontalo River Regional Office is part of a government institution that has responsibility for public services and should provide the satisfaction expected by the community. impact on satisfaction of the people served (SA & Natsir, 2019). Furthermore (Kotler & Keller, 2012) provides a definition of facilities as anything that is tangible and

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prepared by the service seller for the purpose of supporting consumer comfort. Various studies on the relationship between facilities and satisfaction were carried out by researchers, including (Afriadi & Sitohang, 2006) in research conducted on patients at surgical hospitals in Surabaya, concluding that facilities had a positive effect on consumer satisfaction of sick patients.

This statement is reinforced by the opinion of (Tjiptono & Fandy, 2015) which states that facilities are one of the physical resources that must exist before a service can be offered to consumers. In businesses operating in the service sector, existing facilities, namely the condition of the facilities, the completeness of the interior and exterior design and the cleanliness of the facilities, are taken into consideration, especially those that are closely related to what consumers feel or get directly.

The results of the analysis from this research show a positive and significant influence of service facilities on community satisfaction. This shows that the better the service facilities provided by the Sulawesi II Gorontalo River Regional Office, the greater public satisfaction will be at the Sulawesi II Gorontalo River Regional Office.

This is reinforced by research results (Dharmawan & Pensiuningsih, 2018) which state that Service Facilities have an influence on consumer satisfaction, furthermore (William & Purba, 2020) states that Service Facilities have a positive and significant effect on Community Satisfaction. However, research conducted by (Endang & Cholidah, 2017), stated that partial facilities did not have a positive and significant effect on passenger satisfaction at the Rajekwesi Bojonegoro terminal.

### **Conclusion**

Statistically, the Service Quality variable has a positive and insignificant effect on Community Satisfaction with Hydrological Data Services at the Sulawesi II Gorontalo River Regional Office. So Service Quality has not been able to significantly increase Community Satisfaction. The Service Procedure variable has a positive and significant effect on Community Satisfaction with Hydrological Data Services at the Sulawesi II Gorontalo River Regional Office. So, in order to increase community satisfaction, it is important to review and revise the service procedures provided to the community. Furthermore, the Service Facilities variable has a positive and significant effect on Community Satisfaction with Hydrological Data Services at the Sulawesi II Gorontalo River Regional Office. So, to increase community satisfaction, the important thing to do is maintain, repair and improve the service facilities provided.

Overall, service quality, service procedures and service facilities significantly influence public satisfaction. This shows that increasing community satisfaction is jointly influenced by service quality, service procedures and service facilities.



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