JABOA
Journal Applied Business and Office Administration

e-ISSN: XXXX-XXXX, ISSN: XXXX-XXXX
Volume 1, Nomor 1, June 2025, Hal XX-XX
DOI: ……..
https://journal.uny.ac.id/publications/jaboa/

The Influence of Service Quality and Customer Value on Household Customer Satisfaction PDAM Tirta Handayani Gunungkidul

Luqman Hakim Indartiawan[1]

[1]Department of Business and Finance, Faculty of Vocational, Universitas Negeri Yogyakarta, 55281, Indonesia

ARTICLE INFO

Article history:
Received
Received in revised form
Accepted
Available online

Keywords:
Service quality, customer value, customer satisfaction

ABSTRACT

This study aimed to 1) analyze the influence of service quality on household customer satisfaction at PDAM Tirta Handayani, 2) analyze the influence of customer value on household customer satisfaction at PDAM Tirta Handayani, and 3) analyze the joint influence of service quality and customer value on household customer satisfaction at PDAM Tirta Handayani. This study employed a causal associative approach using quantitative methods. The population consisted of household customers of PDAM Tirta Handayani. The sampling technique used was quota sampling, with a total sample of 140 respondents. Data collection was conducted using closed-ended questionnaires, and the research instruments were tested for validity and reliability. Classical assumption tests performed were normality, linearity, multicollinearity, and heteroscedasticity tests. Data analysis was conducted using simple and multiple linear regression models. The results showed that: 1) service quality had a positive and significant influence on household customer satisfaction at PDAM Tirta Handayani Gunungkidul (46.2%); 2) customer value had a positive and significant influence on household customer satisfaction at PDAM Tirta Handayani Gunungkidul (52.9%); and (3) service quality and customer value jointly had a positive and significant influence on household customer satisfaction at PDAM Tirta Handayani Gunungkidul (57%).

1. Introduction

The availability of clean water for all society is key in efforts to improve public health and maintain environmental sustainability. The National Medium-Term Development Plan (RPJMN) 2020-2024 emphasizes the government's commitment to achieving equitable access to safe drinking water and proper sanitation. According to data from the Central Statistics Agency, the achievement rates for access to safe drinking water and proper sanitation do not meet the government's targets in the National Medium-Term Development Plan (RPJMN) for 2020-2024, which are 100% access to safe drinking water and 90% access to proper sanitation. There is a gap of 8.28% in access to safe drinking water and 7.64% in access to proper sanitation that has not yet been achieved. From 2020 until 2023, the increase in access to safe drinking water was only 1.51% and the increase in access to proper sanitation was only 2.83%. By looking at the average annual increase, the target of 100% access to safe drinking water and 90% access to proper sanitation as per the RPJMN 2020-2024 will not be achieved.

Efforts to improve access to drinking water and sanitation services can be carried out, among other ways, through the construction of piped water networks. The piped water network delivers clean water to the community through pipe connections directly integrated into homes. The piped

water network provides a source of quality water that is easily accessible and available when needed. One of the companies that manages the piped water network in every region of Indonesia is Perusahaan Daerah Air Minum (PDAM). PDAM is a regional-owned enterprise that manages clean water services covering district/city areas.

According to data from the Ministry of Public Works and Spatial Planning, the piping network in Indonesia is managed by PDAM, which is spread across almost every district with a total of 393 PDAM. PDAM manages water resources according to the potential and needs of each region. The low achievement of piped water networks in Indonesia is also due to the low coverage of PDAM services. The Special Region of Yogyakarta Province has the lowest percentage with a service coverage of 15%, with 675,069 residents served out of a total of 4,559,906 residents.

The low coverage of PDAM services in the Special Region of Yogyakarta province indicates that the piping network has not yet reached many communities. The issues with PDAM services include hill areas that are difficult to reach, the use of wells as water sources, and limited investment funds. In addition, there is pollution of raw water sources indicated by the presence of lime, garbage, and a yellowish murky color due to the iron content in the water. Pollution in open water sources can affect the quality of clean water supplied to the community.

PDAM manages water resources tailored to the needs and characteristics of the service area. Piped water is a source of clean water managed by PDAM or similar companies. Public also uses rainwater collected in open ponds. Protected well water is clean water obtained from underground with a protected well circumference. Based on data from the Central Statistics Agency, Gunungkidul Regency is the area with the highest use of piped water systems, with a percentage of 29.60%. The use of rainwater as a drinking water source at 29% is the highest among other regions. As many as 17.49% of households using protected wells indicate that groundwater availability in Gunungkidul Regency is lower compared to other regions.

PDAM Tirta Handayani is a regional-owned enterprise under the supervision of the Gunungkidul Regency local government. PDAM Tirta Handayani has the task of managing drinking water in order to improve the welfare of the community, which involves social, health, and public service aspects. PDAM Tirta Handayani provides clean water services to 57,519 household customers. Indirectly, household customers become the main focus of service because they are the most numerous. Maximal service will make customers perceive the service as more than just a necessity. Customers will achieve satisfaction if their expectations regarding a service can be met.

Customer satisfaction is the comparison between the public's perception of the actual reality and an individual's expectations or the difference between customer expectations of the service and the service provided by the service provider [1]. Customers who feel dissatisfied with the PDAM Tirta Handayani service expressed complaints through the Instagram and left negative reviews on Google. Figure 1 shows the average google reviews received by each PDAM in the DIY Province. PDAM Gunungkidul received the lowest average review with a score of 2,1.

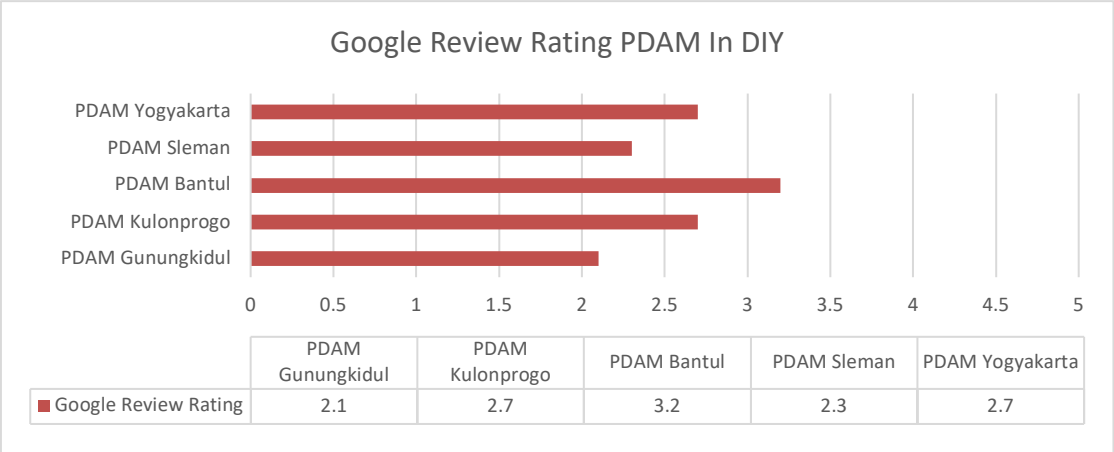

Fig. 1. Google Review Rating PDAM in DIY

PDAM Tirta Handayani customers expressed complaints through Google reviews. PDAM Tirta Handayani received 131 reviews with an average rating of 2,1 stars, predominantly one-star reviews (88 reviews). Water distribution and billing have become the main issues that customers complain about. Customers complain about water distribution issues such as no water flow and low water pressure (54 reviews). Customers also complain about the discrepancy between the bills that need to be paid and the clean water service received (20 reviews). In addition, customers also complained about the water quality (5 reviews) and the slow resolution of issues (6 reviews).

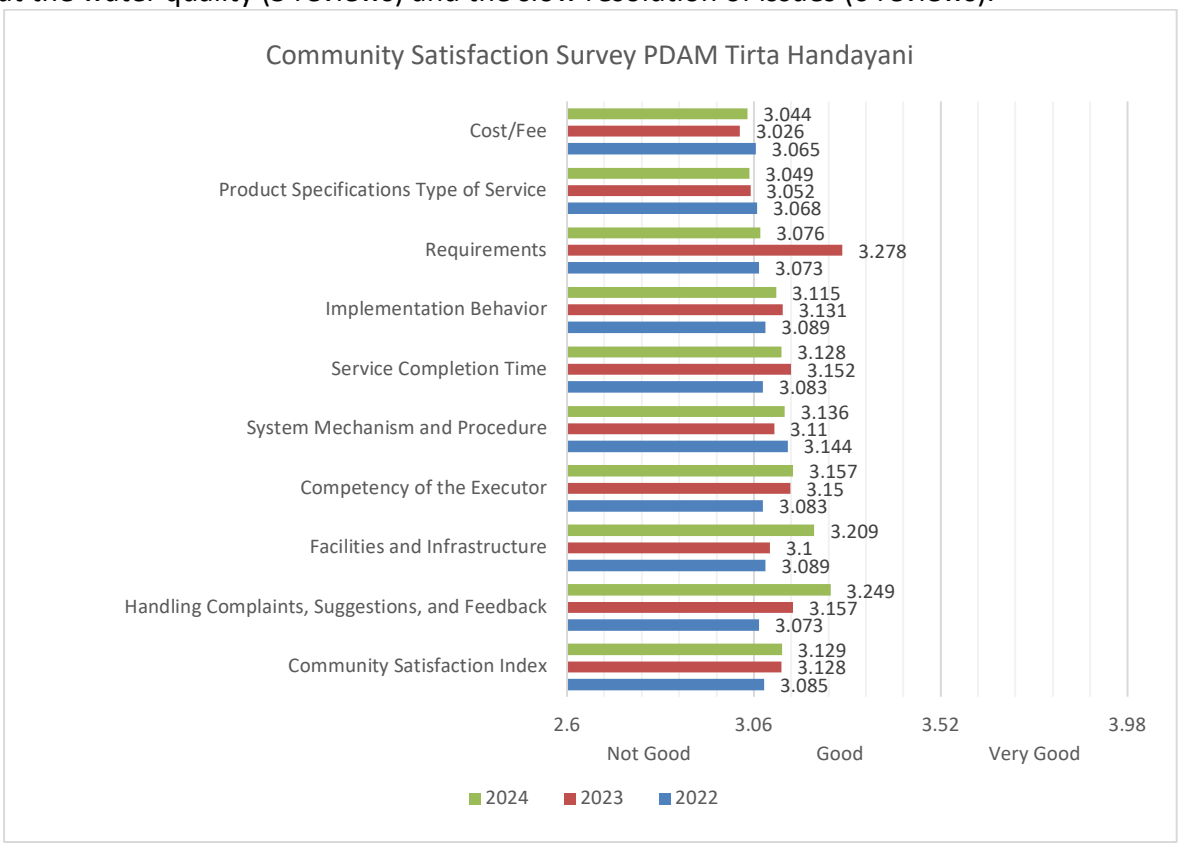

Fig. 2. Community Satisfaction Survey PDAM Tirta Handayani

Figure 2 shows the community satisfaction survey conducted by PDAM Tirta Handayani from 2022 to 2024, with the results indicating an increase in the community satisfaction index in the category of good quality service. However, in the aspect of product specifications for the type of service, there was a decrease in value of 0.019. The cost/tariff element also experienced a decrease in value of 0.021. Both elements have the lowest values and fall into the poor category in 2023 and 2024. The cost/tariff element measures customer satisfaction regarding the alignment of the

expenses incurred with the services received. The element of product specifications and types of services measures customer satisfaction regarding the quality, quantity, and continuity of water from PDAM Tirta Handayani. Although the community satisfaction survey results are categorized as good, there are still elements of service that are lacking.

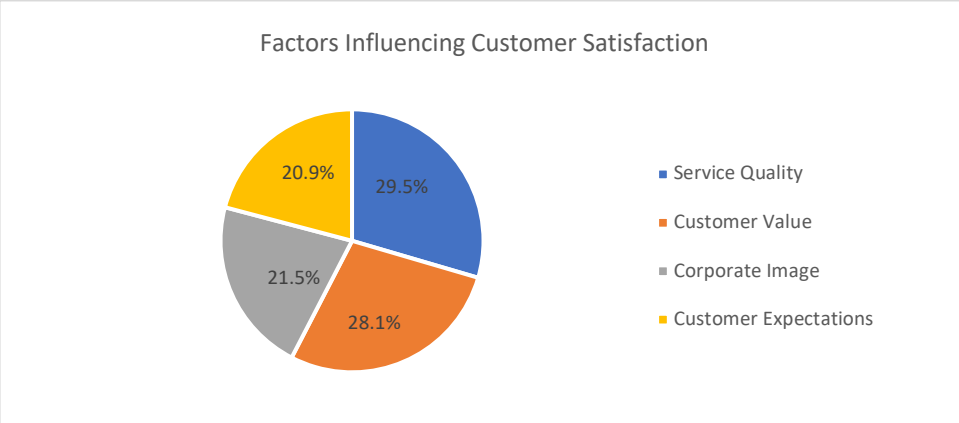

Fig. 3. Factors Influencing Customer Satisfaction

Pre-research surveys were conducted on 30 customers of PDAM Tirta Handayani to identify the factors influencing customer satisfaction. According to Ali et al., the factors that influence customer satisfaction are service quality, customer value, company image, and customer expectations [2]. Based on the pre-survey results, the factor that most influences customer satisfaction at PDAM Tirta Handayani is service quality, with a percentage of 29.5%. Quality service is considered more capable of providing satisfaction to customers. Customer value is also the most influential factor on customer satisfaction at PDAM Tirta Handayani, with a percentage of 28.1%. Customers feel more satisfied if the perceived benefits are greater than the service costs.

As a clean water service provider, it is important for PDAM Tirta Handayani to maintain service quality. According to Kotler & Keller, service quality is the overall features and characteristics of a product or service that affect performance in meeting needs both directly and indirectly [3]. The research conducted by Dewi & Mursyidah on the influence of service quality on customer satisfaction at the Regional Drinking Water Company (PDAM) Delta Tirta. The research shows that the service quality variables with dimensions of tangible evidence, responsiveness, reliability, assurance, and empathy simultaneously have an impact on customer satisfaction [4].

Customers of PDAM Tirta Handayani are complaining about the quality of service provided by the company. The clean water service from PDAM Tirta Handayani is unreliable due to frequent issues with water distribution. Customers also complain about damaged water meters and pipe leaks. PDAM Tirta Handayani is also slow in responding to complaints or issues raised by customers. The issue of water not flowing that occurs outside of PDAM Tirta Handayani's working hours cannot be resolved immediately.

Preliminary research was conducted on 30 customers of PDAM Tirta Handayani. As many as 73% of customers feel that PDAM Tirta Handayani was slow in responding to complaints and issues that arise. 80% of customers felt there were issues in the water distribution process. The clean water service from PDAM Tirta Handayani was unreliable because it often did not flow without notice. Then, 70% of customers complained about the murky water quality, which contained lime and had a chlorine smell.

According to Sweeney & Soutar, good service can provide added value in the form of emotional value, social value, cost value, and performance value [5]. Emotional value is shown from the customers' positive feelings when using a service. Customers feel social value if the service used can provide a sense of pride. Cost value indicates that the service can provide benefits greater than the money spent by the customer. Service performance that exceeds the main function will provide

added value for customers. According to research conducted by Ristia & Marlien on the influence of customer experience, customer value, and service quality on customer satisfaction at Albania Coffee Boja, the influence of customer value on customer satisfaction is based on performance value, price value, and benefit value [6].

The poor cost/tariff element from PDAM Tirta Handayani indicates that the expenses incurred by customers do not match the services received. Unsatisfactory service can occur due to issues with water distribution, slow problem resolution, and water quality. These issues can diminish the added value of PDAM Tirta Handayani's clean water services. The value of the service that cannot be felt can affect customer satisfaction. Customers only receive the main function of a service without any additional benefits.

The results of the pre-survey research conducted on 30 customers of PDAM Tirta Handayani indicate that customer satisfaction has not been achieved. 80% of customers feel reluctant to pay the subscription fee for the services received. The clean water service, which often encounters problems, makes the service cost feel expensive. 67% of customers feel that the costs incurred to pay the water bill do not match the benefits received. The benefits of clean water are not maximized because the water quality does not meet drinking water standards, making it unsuitable for consumption. 70% of customers feel that the costs incurred do not match the performance of the clean water service from PDAM Tirta Handayani. The performance of the clean water service, which often faces issues such as low water flow, water outages, and pipe leaks, makes the service performance suboptimal. Based on the background and problem description above, it is important to conduct further research on the influence of service quality and customer value on customer satisfaction.

2. Method

This research employed a quantitative method with a questionnaire to collect primary data. This type of research is causal associative, which allows for the testing of hypotheses regarding the cause-and-effect relationship between service quality, customer value, and customer satisfaction. Closed questionnaires were chosen as the data collection method because they allow for the objective measurement of research variables and more in-depth data analysis. This research was conducted at PDAM Tirta Handayani Gunungkidul. The population of this study was all household customers of PDAM Tirta Handayani in Gunungkidul Regency, totaling 57,519 individuals. The sample calculation considers the number of question items, and it was determined that the ideal sample size for this study is 140 respondents.

The research instruments were tested for validity and reliability. Classical assumption tests were performed, including normality, linearity, multicollinearity, and heteroscedasticity tests. Data analysis was conducted using simple and multiple linear regression models. The test was conducted to determine the significance and direction of the relationship between the independent variable and the dependent variable. Hypothesis testing was performed using t-tests and f-tests. The research framework and research hypothesis are explained as follows.

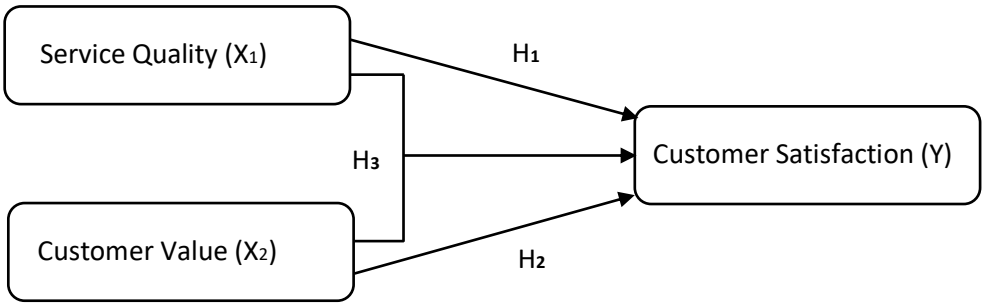

Fig 4. research framework

Based on the background of the study and conceptual framework presented, the hypotheses of this study are formulated as follows.

H1 : Service Quality has a positive and significant effect on the Household Customer Satisfaction of PDAM Tirta Handayani

H2 : Customer Value has a positive and significant impact on Household Customer Satisfaction at PDAM Tirta Handayani

H3 : Service Quality and Customer Value together have a positive and significant impact on Household Customer Satisfaction at PDAM Tirta Handayani.

3. Results and Discussion

3.1. Results

3.1.1. Descriptive Statistical Analysis

Table 1. Descriptive Statistical Analysis

Variable	N	Min.	Max.	Mean	Std. Deviation
Service Quality	140	26	40	32,62	3,094
Customer Value	140	21	32	25,64	2,482
Customer Satisfaction	140	25	40	31,96	3,184

Source: Data Analysis Result, 2024

Service quality variable has a maximum value of 40 and a minimum value of 26. The service quality variable has homogeneous data, as evidenced by the mean value of 32,62 being greater than the standard deviation of 3,094.

Customer value variable has a maximum value of 32 and a minimum value of 21. The customer value variable has homogeneous data, as evidenced by the mean value of 25,64 being greater than the standard deviation of 2,482.

Customer satisfaction variable has a maximum value of 40 and a minimum value of 25. The customer satisfaction variable has homogeneous data as evidenced by the mean value of 31,96 being greater than the standard deviation of 3,184.

3.1.2. Categorization of Variables

Table 2. Categorization of Service Quality Variable

Interval	Category	Frequency	Percentage
37,3 < X	Very High	10	7%
34,2 < X ≤ 37,3	High	29	21%
31,1 < X ≤ 34,2	Medium	46	33%
27,9 < X ≤ 31,1	Low	53	38%
X ≤ 27,9	Very Low	2	1%

Total	140	100%

Source: Data Analysis Result, 2024

Table 2 shows that the service quality of PDAM Tirta Handayani falls into the very low category at 1% (2 customers), low at 38% (53 customers), moderate at 33% (46 customers), high at 21% (29 customers), and very high at 7% (10 customers).

Table 3. Categorization of Customer Value Variable

Interval	Category	Frequency	Percentage
29,4 < X	Very High	13	9%
26,9 < X ≤ 29,4	High	32	23%
24,4 < X ≤ 26,9	Medium	40	29%
21,9 < X ≤ 24,4	Low	52	37%
X ≤ 21,9	Very Low	3	2%
Total		140	100%

Source: Data Analysis Result, 2024

Table 3 shows that the customer satisfaction levels of PDAM Tirta Handayani are categorized as very low at 2% (3 customers), low at 37% (52 customers), moderate at 29% (40 customers), high at 23% (32 customers), and very high at 9% (13 customers).

Table 4. Categorization of Customer Satisfaction Variable

Interval	Category	Frequency	Percentage
36,7 < X	Very High	11	8%
33,6 < X ≤ 36,7	High	37	26%
30,4 < X ≤ 33,6	Medium	38	27%
27,2 < X ≤ 30,4	Low	46	33%
X ≤ 27,2	Very Low	8	6%
Total		140	100%

Source: Data Analysis Result, 2024

Table 4 shows that customer satisfaction at PDAM Tirta Handayani falls into the very low category at 6% (8 customers), low at 33% (46 customers), moderate at 27% (38 customers), high at 26% (37 customers), and very high at 8% (11 customers).

3.1.3. Instrument Testing

Validity testing is an instrument test conducted to determine the ability of a questionnaire as a research measurement tool. An instrument is said to be valid if it accurately measures the variables it is supposed to measure. Based on the results of the validation test, there are 2 invalid question instruments. Invalid questions will be removed and not used for the research.

Reliability testing is conducted to ensure that the instruments used in the research can provide data that corresponds to reality and can be trusted. The reliability of the instrument is assessed based on its consistency in producing the same answers even when measurements are repeated. The reliability test shows that the instruments for each research variable are above 0.8 with a good reliability level interpretation. Thus, it can be concluded that the instruments are reliable and can be used for research.

3.1.4. Classic Assumption Test

3.1.4.1. Normality Test

The normality test is conducted to determine whether the data from the variable is normally distributed or not. This study uses the Kolmogorov-Smirnov normality test technique using SPSS Statistics 27 for Windows software.

Table 5. Normality Test

Testing	Significance Value	Explanation
Unstandardized Residual	0,200	Normal

Source: Data Analysis Result, 2024

Based on the results of the Kolmogorov-Smirnov test, the Asymp. Sig. (2-tailed) value is 0.200. The significance value of 0.200 > 0.05 indicates that the data is normally distributed.

3.1.4.2. Linearity Test

The linearity test is conducted to determine whether the relationship between the independent variable and the dependent variable is linear or non-linear. The linearity test can be conducted using the test for linearity with the SPSS Statistics 27 for Windows software.

Table 6. Linearity Test

Variable	Sig. Linearity	Explanation
Service quality	0,000	Linier
Customer Value	0,000	Linier

Source: Data Analysis Result, 2024

Based on the results of the linearity test, the sig. linearity value of the service quality variable and customer value is 0.000. The sig. linearity value is less than 0.05, so it can be concluded that the relationship between the service quality variable and customer value has a linear relationship with the dependent variable, which is customer satisfaction.

3.1.4.3. Multicollinearity Test

The multicollinearity test is conducted to determine the significance of the relationship between independent variables. This study uses the Variance Inflation Factor (VIF) test to determine the existence of a relationship between the independent variables of service quality and customer value.

Table 7. Multicollinearity Test

Variable	Tolerance	VIF	Explanation
Service quality	0,433	2,308	Non Multicollinearity
Customer Value	0,433	2,308	Non Multicollinearity

Source: Data Analysis Result, 2024

Based on Table 7, the test results show a tolerance value of 0.433 greater than 0.1 and a VIF value of 2.308 less than 10, so it can be concluded that there is no multicollinearity problem in the regression model.

3.1.4.4. Heteroscedasticity Test

The heteroscedasticity test is conducted to determine the occurrence of unequal residual variance from one observation to another in a linear regression model.

Table 8. Heteroscedasticity Test

Variable	Sig.	Explanation
Service quality	0,204	Non Heteroscedasticity
Customer Value	0,728	Non Heteroscedasticity

Source: Data Analysis Result, 2024

Table 8 shows the results of the glejser test for both variables, namely service quality 0.204 and customer value 0.728. The value obtained from the test is greater than 0.05. It can be concluded that there is no heteroscedasticity in the regression model.

3.1.5. Hypothesis Test

3.1.5.1 Simple Linear Regression Analysis

Table 9. Simple Linear Regression Analysis Service Quality

Variable	Unstandardized B	t	Sig.	Explanation
Contans	9,143	4,345	0,000	
Service Quality	0,700	10,894	0,000	Sig.

Source: Data Analysis Result, 2024

Y = 9,143 + 0,700X

Based on the results of the regression equation, it can be determined that if the quality of service is considered constant, the customer satisfaction value is 9.143. The positive value of the regression coefficient indicates that the relationship between the service quality variable and customer satisfaction is positive. A positive relationship means that if the quality of service increases by one unit, customer satisfaction will increase by 0.700.

Table 10. Simple Linear Regression Analysis Customer Value

Variable	Unstandardized B	t	Sig.	Explanation
Contans	8,042	4,169	0,000	
Customer Value	0,933	12,458	0,000	Sig.

Source: Data Analysis Result, 2024

Y = 8,042 + 0,933X

Based on the results of the regression equation, it can be determined that if the customer value is considered constant, then the customer satisfaction value is 8.042. The positive value of the regression coefficient indicates that the relationship between the customer value variable and

customer satisfaction is positive. A positive relationship direction means that if the customer value increases by one unit, customer satisfaction will increase by 0.933.

3.1.5.2 Multiple Linear Regression Analysis

Table 11. Multiple Linear Regression Analysis

Variable	Unstandardized B	t	Sig.	Explanation
Contans	5,352	2,680	0,008	
Service Quality	0,314	3,586	0,000	Sig.
Customer Value	0,638	5,847	0,000	Sig.

Source: Data Analysis Result, 2024

Y = 5,352 + 0,314X1 + 0,638X2

The constant value of 5.352 means that if the quality of service and customer value remain constant. It can be concluded that service quality and customer value affect customer satisfaction by 5.352. The positive direction of the relationship means that if the quality of service increases by one unit, customer satisfaction will increase by 0.314. The positive direction of the relationship means that if the customer value increases by one unit, customer satisfaction will increase by 0.638.

The service quality variable has a t-value of 3.586 and a significance value of 0.000. The t-statistic value of 3.586 is greater than the t-table value of 1.656 and the significance value of 0.000 is less than 0.05. The customer value variable has a t-statistic value of 5.847 and a significance value of 0.000. The calculated t-value of 5.847 is greater than the table t-value of 1.656 and the significance value of 0.000 is less than 0.05.

Table 12. Anova Table

ANOVA[a]					
Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	802.650	2	401.325	90.703	.000[b]
Residual	606.171	137	4.425		
Total	1408.821	139			
a. Dependent Variable: Y					
b. Predictors: (Constant), X2, X1					

Source: Data Analysis Result, 2024

Based on the analysis results in Table 12, an f value of 90.703 and a significance value of 0.000 were obtained. The calculated f value of 90.703 is greater than the table f value of 3.06 and the significance value of 0.000 is less than 0.05.

3.1.5.3 Coefficient of Determination Result

The coefficient of determination is used to measure the extent of the influence of all independent variables on the dependent variable in the regression model. The coefficient of determination (R2) measures the ability of the regression model to explain the variation in the dependent variable.

Table 13. Determination Coefficient Result of X1 on Y

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	,680[a]	,462	,458	2,343

2	,728[a]	,529	,526	2,192
3	0,755	0,570	0,563	2,103

Source: Data Analysis Result, 2024

The coefficient of determination value of X1 against Y is 0.462, which means that Service Quality (X1) contributes to Customer Satisfaction (Y) by 46.2%. The coefficient of determination value of X2 against Y is 0.529, so it can be concluded that Customer Value (X2) contributes to Customer Satisfaction (Y) by 52.9%. The coefficient of determination value of X1 and X2 against Y is 0.570, which means it can be concluded that Service Quality (X1) and Customer Value (X2) contribute to Customer Satisfaction (Y) by 57%, while the remaining 43% is influenced by other variables not explained in this study.

3.2. Discussion

3.2.1. The Influence of Service Quality on Household Customer Satisfaction of PDAM Tirta Handayani

The results of the t-test show that the service quality variable has a t-value of 3.586 and a significance value of 0.000. The calculated t-value of 3.586 is greater than the table t-value of 1.656 and the significance value of 0.000 is less than 0.05. Therefore, Ho is rejected and Ha is accepted, thus meaning the service quality variable significantly affects the customer satisfaction variable. The simple linear regression test shows a coefficient of determination value of 0.462, which means that service quality contributes to customer satisfaction by 46.2%, while the remaining 53.8% is influenced by other variables not explained in this study. The value of the simple linear regression coefficient is positive, indicating that the relationship between the service quality variable and customer satisfaction is positive. Based on the results of the statistical test, it can be concluded that service quality has a positive and significant effect on the satisfaction of PDAM Tirta Handayani household customers, thus the first hypothesis in this study can be accepted.

Research by Putera et al. shows that service quality has a positive and significant impact on customer satisfaction [7]. Meanwhile, Manap et al. explain that service quality is the suitability or practicality of a product or service to meet customer needs and achieve service objectives. Service providers strive to meet customer needs and desires, as well as distribute goods accurately to fulfill customer expectations. Service providers strive to meet the needs and desires of customers and distribute goods accurately to fulfill customer expectations [8].

Based on the categorization of the service quality variable, 38% of respondents fall into the low category, which means that some customers feel that the service quality of PDAM Tirta Handayani is not optimal. The quality of service is said to be suboptimal if there are service features that do not meet the standards. A deficiency in one service feature can make customers feel dissatisfied. Customers will easily feel dissatisfied if the service they receive does not meet their expectations.

The service of PDAM Tirta Handayani is not yet optimal, as indicated by research instrument number 9 regarding information on obstacles and improvements in clean water service, which received the lowest score of 422. The concern of PDAM Tirta Handayani towards customers in providing information about clean water distribution issues is still not optimum. The lack of communication from the company regarding the obstacles in the distribution of clean water makes customers feel disappointed. PDAM Tirta Handayani can improve communication and access to information regarding clean water supply issues to customers. PDAM Tirta Handayani can improve one service feature to enhance the overall quality of its services.

3.2.2. The Influence of Customer Value on Household Customer Satisfaction of PDAM Tirta Handayani

The results of the t-test show that the customer value variable has a t-statistic value of 5.847 and a significance value of 0.000. The t-statistic value of 5.847 is greater than the t-table value of 1.656 and the significance value of 0.000 is less than 0.05. Therefore Ho is rejected and Ha is accepted, thus meaning the customer value variable significantly affects the customer satisfaction variable. The simple linear regression test shows a coefficient of determination value of 0.529, which means that customer value contributes to customer satisfaction by 52.9%, while the remaining 47.1% is influenced by other variables not explained in this study. The value of the simple linear regression coefficient is positive, indicating that the relationship between the customer value variable and customer satisfaction is positive. Based on the results of the statistical test, it can be concluded that customer value has a positive and significant effect on household customer satisfaction at PDAM Tirta Handayani, so the second hypothesis in this study can be accepted.

The results of this study are in line with previous research conducted by Ristia & Marlien which showed a positive and significant influence of customer value on customer satisfaction. Customer value includes good service, the price paid, and the quality of product information, which all influence customer satisfaction [6]. According to Manap et al., customer value is the evaluation made by customers of the overall benefits received in relation to the costs incurred and the sacrifices that need to be made to obtain those benefits. An emotional bond occurs between customers and service providers when the product used adds value [8].

Based on the categorization of customer value variables, 37% of respondents fall into the low category, which means that some customers feel that the customer value of PDAM Tirta Handayani has not been maximally perceived by the customers. Customer value has not been achieved if the service is only meant to meet basic needs. Customers expect the services they receive to have values beyond the primary utility of the service. Customer value is also influenced by the efforts made by customers to obtain the service. If the effort made is greater than the value obtained, then the customer will feel dissatisfied. Customers will feel satisfied if they receive more value with minimal effort.

Customers feel that the value of PDAM Tirta Handayani's service is not optimal, especially in terms of cost. Research instrument number 15 regarding the cost of clean water services not being proportional to the benefits of clean water received the lowest score, which is 411. PDAM Tirta Handayani customers have not yet perceived the value of the cost because the expenses incurred to obtain clean water do not match the benefits felt. The clean water service from PDAM Tirta Handayani can provide benefits to customers, but customers are still concerned about the costs that need to be incurred. Customer value can be maximized by PDAM by evaluating the price of clean water services without reducing quality and other added values. If it is not possible to change the price value, PDAM Tirta Handayani can focus on other added values so that customers are willing to subscribe at the set cost.

3.2.3. The Influence of Service Quality and Customer Value on Household Customer Satisfaction at PDAM Tirta Handayani

The results of the F statistical test show a calculated f value of 90.703 and a significance value of 0.000. The calculated f value of 90.703 is greater than the table f value of 3.06 and the significance value of 0.000 is less than 0.05. Therefore Ho is rejected and Ha is accepted, thus meaning that the service quality variable and customer value variable significantly influence the customer satisfaction variable together. The value of the multiple linear regression coefficient is positive, indicating that the relationship between the service quality variable and customer value towards customer satisfaction is positive. The coefficient of determination is 0.570, which means that service quality and customer value contribute to customer satisfaction by 57%, and the remaining 43% is influenced

by other variables not explained in this study. Based on statistical tests, it can be concluded that the quality of service and customer value together have a positive and significant impact on the satisfaction of PDAM Tirta Handayani household customers, so the third hypothesis in this study can be accepted.

This research is in line with previous studies conducted by Yulita et al., which show that service quality and customer value have a positive and significant impact on customer satisfaction [9]. According to Manap et al., customer satisfaction is largely influenced by the factors of service quality and customer value. Companies that provide higher quality products or services tend to gain customer trust. Customer trust in the products or services provided by the company indicates that customer satisfaction has been achieved. Customer value can determine customer satisfaction because the benefits obtained from a product or service will bring satisfaction to the customer [8].

Based on the categorization of customer satisfaction variables, 33% of respondents fall into the low category. Low customer satisfaction indicates that some customers feel dissatisfied with the overall clean water services from PDAM Tirta Handayani. The level of customer satisfaction can be determined by the service's ability to meet customer expectations. Customer satisfaction is also influenced by the overall benefits that customers receive when using the service. Customers will feel satisfied when the service received provides higher value compared to the effort required to obtain the service.

The quality of service and customer value have been proven to have a positive and significant impact on customer satisfaction. Customers will feel satisfied if the products and services they receive are of good quality. Products or services that can provide value beyond merely meeting needs will make customers feel satisfied. Customer value can determine customer satisfaction because the benefits obtained from a service will provide satisfaction to customers. Then, quality service can meet the needs or even exceed customer expectations. Next, Value-added services can provide additional benefits beyond their primary functions and uses. At last, the combination of quality services and added value in a product or service aimed at customers will create customer satisfaction.

4. Conclusions

4.1. There is a positive and significant influence of service quality on the satisfaction of household customers of PDAM Tirta Handayani Gunungkidul. The quality of service has an influence on customer satisfaction (46.2%).

4.2. There is a positive and significant influence of customer value on the satisfaction of household customers of PDAM Tirta Handayani Gunungkidul. Customer value has an influence on customer satisfaction (52.9%).

4.3. There is a positive and significant joint effect of service quality and customer value on the satisfaction of household customers of PDAM Tirta Handayani Gunungkidul. The quality of service and customer value together have an impact on customer satisfaction (57%).

References

[1] S. N. Julipani, & Z. A. Syafitri, "Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan di UPTD Laboratorium Kesehatan Provinsi Jawa Barat," *Jurnal Pendidikan Dan Kewirausahaan*, vol. 9, no. 2, pp. 486–492, 2021. https://doi.org/10.47668/pkwu.v9i1.315

[2] R. Ali, G. Leifu, M. Y. Rafiq, & M. Hassan, "Role Of Perceived Value, Customer Expectation, Corporate Image And Perceived Service Quality On The Customer Satisfaction," *The Journal of Applied Business Research*, vol. 31, no. 4, pp. 1425-1436. http://dx.doi.org/10.19030/jabr.v31i4.9328

[3] P. Kotler, & K. L. Keller, *Marketing management,* 15 edition, Pearson Pretice Hall, 2016.

[4] I. M. Dewi, & L. Mursyidah, "The Influence of Service Quality on Customer Satisfaction of Regional Drinking Water Company (PDAM) Delta Tirta," *Indonesian Journal of Public Policy Review*, vol 17, pp. 1–6, 2022. https://doi.org/https://doi.org/10.21070/ijppr.v17i0.1243

[5] J. C. Sweeney, & G. N. Soutar, "Consumer Perceived Value: The Development of A Multiple Item Scale," *Journal of Retailing*, vol. 77, pp. 203–220, 2001. https://doi.org/10.1016/S0022-4359(01)00041-0

[6] N. D. Ristia, & R. A. Marlien, "Pengaruh Pengalaman Pelanggan, Nilai Pelanggan, dan Kualitas Layanan terhadap Kepuasan Pelanggan (Studi Pada Pelanggan Albania Coffee Boja)," *YUME : Journal of Management*, vol. 5, no. 3, pp. 1–16, 2022. https://doi.org/10.2568/yum.v5i2.1751

[7] W. Putera, R. Sahabuddin, M. Rakib, & A. S. Girikallo, "Effect of Service Quality on Customer Satisfaction Through Customer Value in PDAM Kota Makassar," *International Journal of Innovative Science and Research Technology*, vol. 5, no, 10, pp. 1129–1137, 2020. https://www.ijisrt.com/assets/upload/files/IJISRT20OCT368.pdf

[8] A. Manap, I. Sani, A. Sudirman, H. Noviany, M. T. Rambe, R. Raflina, Y. Adnan, Abdurohim, S. Adha, F. Fajar, S. Pujilestasi, I. K. E. Mulyana, & E. Widiati, *Manajemen Pemasaran Jasa (Konsep Dasar dan Strategi)*, Eureka Media Aksara, 2023.

[9] R. Yulita, I. Andriyani, & Gusnafitri, "Pengaruh Kualitas Pelayanan dan Nilai Pelanggan Terhadap Kepuasan Pelanggan Pada Vanhollano Bakery Sudirman," *Jurnal Edu Research*, vol. 5, no. 2, pp. 254–265, 2024. https://iicls.org/index.php/jer/article/view/198