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Influence Of Service Quality, Water Quality And Facilities Towards Customer Satisfaction At The Regional Public Company Tirto Panguripan Drinking Water, Kendal District

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Abstract . *The results of the analysis show that hypothesis 1 (H1) that service quality has a positive effect on customer satisfaction is proven. The regression coefficient for the service quality variable has a positive sign so it can be interpreted that the higher the service quality, the higher the customer satisfaction. Hypothesis 2 (H2) that water quality has a positive effect on customer satisfaction is proven. The regression coefficient for the water quality variable has a positive sign so it can be interpreted that the better the water quality, the higher the customer satisfaction. Hypothesis 3 (H3) that facilities have a positive effect on customer satisfaction is proven. The regression coefficient for the facility variable has a positive sign, so it can be interpreted that the more adequate the facilities provided by the company, the higher the customer satisfaction.*

Keywords *: Service quality, product quality, facilities, customer satisfaction.*

INTRODUCTION

The way to satisfy customers is to change the previously conventional service orientation to professional service. Conventional service is service that is not oriented towards consumer satisfaction. Services that do not pay attention to service quality and do not pay attention to consumers cause the services offered to be no longer in demand by consumers. The quality of service provided determines the level of satisfaction obtained by consumers (Lupiyoadi , 2014). Research results Dinah (2014) , Affandi , Zaki & Azmeri (2017) also Aprilia, Ati & Sekarsari (2020) shows that service quality has a positive and significant effect on customer satisfaction from drinking water companies.

Apart from service quality, other factors that also need to be considered are product quality and facilities. Quality product is circumstances physical , function and properties product concerned who can fulfil tastes and needs consumer with satisfying in accordance value of money that has been issued (Prawirosentono, 2004). Kotler and Armstrong (200 8) stated that quality _ product is ability something product For carry out Functions include _ Power durability , reliability , accuracy , convenience operation and repairs , as well attribute worth other . Jasin's research results & Sri Wahyuni (2015) and Fitriadi (2018) Also Hero , Nurlia , Profit, Pakki & Hardiyono (2019) shows that the quality of drinking water products has a positive and significant effect on customer satisfaction.

Next are the facilities is everything , both tangible and intangible, that can facilitate the smooth running of tasks and so on (Tjiptono , 2011). So facilities function to provide all

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physical needs to fulfill customer desires, so that if facility needs are met customers will feel satisfied. Mursitoaji's research results (2010) , Andayani (2020) also Karo (2021) found that facilities have a positive and significant effect on customer satisfaction.

One of the companies engaged in the production and distribution of drinking water is Perumda Drinking water Tirto Panguripan Kendal Regency . In running its business, this company always tries to improve the quality of service to its consumers so that they get satisfaction with the services provided. Apart from improving the quality of service, this company also improves the quality of its products, namely drinking water, and strives to improve the provision of facilities. However, with the increase in sales turnover in the last four years, the level of consumer satisfaction has decreased, this can be seen from the increasing number of consumer complaints/complaints.

METHOD

1. Population and Sample

Population is the area of generalization that consists on object or subjects who have quantity and characteristics certain conditions determined by the researcher For studied and drawn the conclusion . Whereas sample is part from the number and characteristics possessed by the population (Sugiyono , 2010) . Population in study This is all over customers at the Regional Public Drinking Water Company Tirto Panguripan Kendal Regency in 2022 with a total of 97,184 person. Whereas the sample taken as many as 100 respondents with Slovin's formula The sampling method used in this research is *accidental sampling* , namely sampling by asking respondents who are found when the researcher is conducting a survey to fill out a questionnaire (Sugiyono, 2010).

2. Variables and indicators

Table 2.
Variables and Indicators

Variable Study	Indicator – Research Actor
1. Quality Service How much ? so that the level of expectations and expectations of customers regarding service delivery is different which they accepted (Lupiyoadi , 2014)	a. Physical evidence: Condition of service room b. Reliability : Timeliness of water flow to customers c. Responsiveness: The alertness of officers in receiving customers d. Confidence: Guarantee in service e. Empathy : Be patient with customers _ _
2. Water quality : Something size safe water conditions for health if fulfil condition physics , microbiology , chemistry and radioactivity are contained in parameter mandatory and addition (Permenkes RI No. 492 /MENKES/PER/IV/2010)	a. Enjoy the water customer No taste b. Enjoy the water customer No smells c. Enjoy the water customer No colored d. Enjoy the water customer No contain waste , material dangerous and poisonous e. Enjoy the water customer check the quality by the Health Department every month.

3. Facilities : Everything, both tangible and intangible objects that can make things easier or run tasks smoothly and so on (Ra c h m a n & An d riya n i , 2012)	a. How to pay your account directly at the service office or online b. Complaints are accepted 24 hours c. Information for customers is conveyed via social media or official accounts d. Quick response to all complaints
4. Satisfaction customer: Post-consumption evaluation that a chosen alternative at least meets customer expectations (Kotler , 2009)	a. Customers' desire to always use - use the company's products and services b. Customer desires to provide input / suggestions regarding the products and services offered company c . The wishes of the customers to recommend the products and services offered company to others

Data analysis method

Data analysis method used in study This is as following (Ghozali , 20 1 3):

1. Validity and Reliability Test

a. Validity Test , ie testing level accuracy use tool gauge to something symptom or incident . Test used is correlation *Product Moments* with help computer (SPSS program) , if coefficient correlation or r count > r table so declared valid.

b. Reliability Test , ie terms used _ For show to what extent results gauge relatively consistent if measurement done twice or more . Test used is *Cronbach's Alpha* with help computer (SPSS program), if alpha value > 0.7 0 (standard r) then stated reliable

2. Model Feasibility Test

a. Coefficient of Determination

The coefficient of determination (*adjusted* R2) is used to measure the model's ability to explain variations in the dependent variable .

b. F test

Criteria used:

- If the calculated F value > F table, then it is significant and if the calculated F value < F table, then it is not significant
- If the significance figure is < α= 0.05, then it is significant and if the significance figure is > 0.05, then it is not significant

3. Test Hypothesis

T test or (t *test)* used to test the significance of the independent variables contained in the regression equation individually in influencing the value of the dependent variable.

Criteria used:

a. If t count > t table then significant If t count ≤ t table then no significant
b. If the significance figure is < α = 0.05 then it is significant and if the significance figure is > 0.05 then it is not significant

4. Multiple Regression Analysis

Multiple regression analysis is used to measure the magnitude of the influence of two or more independent variables on the dependent variable. The multiple regression equation model used in this research is as follows (Djarwanto, 2011):

$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$
Information :
Y : Satisfaction customer
X_1 : Quality service
X_2 : Water quality _ _
X_3 : Facility
β: Coefficient regression
e : Error / residue

RESULTS AND DISCUSSION

Discussion

1. Validity test

Validity test This done with compare r count and r table . If r count > r table so questionnaire declared valid. Validity test results questionnaire can seen in the table below This .

Table 3.
Test result Validity Questionnaire

Variable	Indicator	r count (*Corrected Item Total Correlation*)	>/<	r table (α=0.05)	Information
Quality	X1.1	0.487	>	0.195	Valid
Service (X1)	X1.2	0.526	>	0.195	Valid
	X1.3	0.514	>	0.195	Valid
	X1.4	0.398	>	0.195	Valid
	X1.5	0.393	>	0.195	Valid
Water Quality	X2.1	0.438	>	0.195	Valid
(X2)	X2.2	0.434	>	0.195	Valid
	X2.3	0.459	>	0.195	Valid
	X2. 4	0.513	>	0.195	Valid
	X2. 5	0.529	>	0.195	Valid
Facilities (X 3)	X3.1	0.477	>	0.195	Valid
	X3.2	0.455	>	0.195	Valid
	X3.3	0.525	>	0.195	Valid
	X3. 4	0.514	>	0.195	Valid
Satisfaction	Y1	0.452	>	0.195	Valid
Customer (Y)	Y2	0.430	>	0.195	Valid
	Y3	0.456	>	0.195	Valid

Source : Processed primary data , 202 3

Based on computer *print out* can arranged table above . _ In table the can is known that all items are valid, because each item meets condition that is mark *Corrected Item Total Correlation* or r count > r table = 0.195 (N = 100 , α= 0.05) in attachment- 5 .

2. Reliability Test

Reliability test used For measure reliability answer from something question or in other words for know degrees stability tool measure . Based on computer *print out* so can arranged table below _ This :

Table 4
Test result Reliability Questionnaire

Variable	r count (*Cronbach Alpha*)	r standard	Information
Service Quality (X1)	0.733	0.70	Reliable
Water Quality (X2)	0.742	0.70	Reliable
Facilities (X3)	0.769	0.70	Reliable
Satisfaction Customer (Y)	0.728	0.70	Reliable

Source : Processed primary data , 202 3

Table above show that mark *Cronbach Alpha* or r count For third variable that is service quality (X1), water quality (X2), facilities (X3) and satisfaction customer (Y) everything more big of 0.70 (standard r) then can concluded that results testing questionnaire reliable .

Test Model Feasibility

model feasibility test was carried out with coefficient test determination and F test as following :

1. Coefficient Determination

Analysis coefficient determination in study This can explained based on table following This :

Table 5
Determination
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,675 [a]	,456	,445	1.75598

a. Predictors: (Constant). Facilities (X3). Quality Service (X1). Water Quality (X2)
Source : Processed primary data , 202 3

Based on table above _ can is known that *Adjusted R Square* figure is 0.445. This matter means that third variable independent that is service quality , water quality and facilities have contribution influence to satisfaction customer as big as 44.5% while 55.5 % influenced other variables .

2. F test

F Test results can be obtained explained based on table below _ This .

Table 6
F Test Results
ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6,147	3	12,049	34,664	,000 [b]
	Residual	296,013	96	3,083		
	Total	302.160	99			

a. Dependent Variable: Satisfaction Customer (Y)
b. Predictors: (Constant). Facilities (X3). Quality Service (X1). Water Quality (X2)
Source : Processed primary data , 202 3

The table above shows that the calculated F value = 34.664 > F table = 2.68 ($df_1 = k = 3$ and $df_2 = n – k – 1 = 1000 – 3 – 1 = 96$, $\alpha = 0.05$) in the attachment- 7 , with a significance figure = 0.000 < $\alpha = 0.05$ so it is significant.

Based on testing *adjusted* R^2 and F above can concluded the research model This worthy For used .

Hypothesis testing

The t test was used For test hypothesis from the influence of each variable free in a way individual to variable bound . Testing hypothesis in a way Partial can explained based on table following This :

Table 7

Hypothesis Testing Results

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10,136	2,087		4,856	,000
	Quality Service (X1)	,391	.137	,379	2,854	,006
	Quality (X2)	,416	.134	,405	3,105	,001
	Facilities (X3)	,298	.114	,286	2,614	.012

a. Dependent Variable: Satisfaction Customer (Y)

Source : Processed primary data , 202 3

Table above show that calculated t value for each variable to be compared to with t table in the attachment - 8 as following :

1. Hypothesis testing influence quality service to customer satisfaction

   Hypothesis (H_1) is proposed is :

   H0 : _ $\beta_1 = 0$: Quality service No influential _ to customer satisfaction

   Ha : $\beta_1 > 0$: Quality service influential _ positive to customer satisfaction

   Calculated t value = 2.854 > t table = 1.658 (df = n - k - 1 = 100 - 3 -1 = 96 , α= 0.05, one party) with number significance = 0.006 < α= 0.05 so Ho is rejected and Ha is accepted (significant). Thus hypothesis 1 (H1) is that quality service influential _ positive to satisfaction customer proven .

2. Hypothesis testing influence water quality towards customer satisfaction

   Hypothesis (H_2) is proposed is :

   H_0 : $\beta_2 = 0$: Water quality is not influential _ to customer satisfaction

   Ha : $\beta_2 > 0$: Water quality has an influence positive to customer satisfaction

   Calculated t value = 3.105 > t table = 1.658 with number significance = 0.001 < α= 0.05 so Ho is rejected and Ha is accepted (significant). Thus hypothesis 2 (H2) is that water quality has an influence positive to satisfaction customer proven .

3. Hypothesis testing influence facilities against customer satisfaction

   Hypothesis (H_3) is proposed is :

   H0 : _ $\beta_3 = 0$: Facility No influential _ to customer satisfaction

   Ha : $\beta_3 > 0$: Facilities influential _ positive to customer satisfaction

   Calculated t value = 2.614 > t table = 1.658 with number significance = 0.012 < α= 0.05 so Ho is rejected and Ha is accepted (significant). Thus hypothesis 3 (H3) is that facility influential _ positive to satisfaction customer proven .

Analysis Regression Multiple

Analysis regression multiple in study This can explained based on table 4. 13 . The table show that coefficient regression variable quality service (X_1) or $\beta 1 = 0.379$, _ water quality (X_2) or $\beta_2 = 0.405$ and facilities (X_3) or $\beta 3 = 0.286$. Based on numbers the can prepared an equation model regression as following :

$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_{3 + So}$: Y = 0.379 _ _ _ _ _

From the equation above, the following interpretation can be made:

1. Variable regression coefficient quality service or $\beta_1 = 0.379$ because it has a positive sign (+) so it is quality service has a positive effect on customer satisfaction and can be interpreted as higher

quality service the higher the customer satisfaction at Perumda Ti r to Panguripan Drinking Water Kendal Regency

2. Variable regression coefficient water quality or $\beta_2 = 0.405$ because it has a positive sign (+) so that water quality has a positive effect on customer satisfaction and it can be interpreted that the better the water quality , the higher the customer satisfaction at Perumda Drinking water Ti r to Panguripan Kendal Regency
3. Variable regression coefficient facilities or $\beta_3 = 0.286$ because it has a positive sign (+) so that facilities have a positive effect on customer satisfaction and it can be interpreted that the more adequate the facilities provided by the company , the higher the customer satisfaction at Perumda Drinking water Ti r to Panguripan Kendal Regency

CONCLUSION

Based on the results of the analysis and discussion, several conclusions can be drawn as follows:

1. of the analysis show that hypothesis 1 (H1) that service quality has a positive effect on customer satisfaction is proven. Variable regression coefficient quality service has a positive sign so it can be interpreted that it is getting higher quality service the higher the number of Perumda customers Drinking water Ti r to Panguripan Kendal Regency
2. Hypothesis 2 (H2) that water quality has a positive effect on customer satisfaction is proven. Variable regression coefficient water quality is positive so it can be interpreted that The better the water quality, the higher Perumda's customer satisfaction Drinking water Ti r to Panguripan Kendal Regency
3. Hypothesis 3 (H3) that facilities have a positive effect on customer satisfaction is proven. Variable regression coefficient facility has a positive sign so it can be interpreted that increasingly adequate facilities provided by the company then the higher customer satisfaction at Perumda Drinking water Ti r to Panguripan Kendal Regency .

SUGGESTION

Suggestions that can be given based on the research results are as follows:

1. The analysis results show that water quality has a significant effect on customer satisfaction. So the better the water quality, the higher customer satisfaction. Thus, the leadership of Perumda Drinking water Ti r to Panguripan Kendal Regency needs to maintain and if possible improve the quality of the drinking water it supplies to customers by collaborating with the health department
2. Service quality has a significant effect on customer satisfaction. So the higher the quality of service, the higher the customer satisfaction. Thus, the leadership of Perumda Drinking water Ti r to Panguripan Kendal Regency needs to give training and education to all

employees in the field technique nor administration , in fact alternately , so all employee can increase their respective capabilities . Apart from that, make SOP (*Standard Operating Procedure)* documents and instructions technical related service to customers , so make it easier evaluation its success .

3. Facilities also have a significant effect on customer satisfaction. Thus, the leadership of Perumda Drinking water Ti r to Panguripan Kendal Regency needs to complete it facilities service support For customers come _ to office service , so that customers feel comfortable .

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