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Implementation of Servqual Method and Root Cause Analysis to Measure the Service Quality of Retail Company in PT. "X"

Wiwik Sulistiyowati
Industrial Engineering Department
Universitas Muhammadiyah Sidoarjo
Sidoarjo, Indonesia
wiwik@umsida.ac.id

Abdul Rofik
Industrial Engineering Department
Universitas Muhammadiyah Sidoarjo
Sidoarjo, Indonesia
abdulrofiq980@gmail.com

***Abstract*—Quality of service is an important thing that should be improved by service providers. With the growth and tightness of business competition, it is very important that service providers improvement the quality of their services as the basis of business competition. The purpose of this study is to determine the level of service quality and attributes that affect the service quality. The method used in this research is mix method with approach concept of Service Quality (Servqual) and Root Cause Analysis (RCA). The variables used are tangible, responsible, reliable, empathy, and assurance. The result of this research is the level of customer satisfaction to the service given is 0.00 in Assurance variable to attribute clarifyinformation given by employee to consumer e.g.: promotion, product price with value equal to 0.00. This means that consumers' perceptions and expectations are the same. While the Assurance variable on attribute completeness of facilities and infrastructure take e.g. security parking with a value of -0.0802.**

Keywords Quality; Services: Service Quality; Root Cause Analyze

I. INTRODUCTION

Quality of service is an important thing that should be improved by service providers. With the growth and tightness of business competition, it is very important that service providers improvement the quality of their services as the basis of business competition. PT "X" is a retail business engaged in the sale and supply of household needs. One effort made to know level of service quality that has been given that is by measuring the level of customer satisfaction to consumers who have felt the service given by PT. "X".Customer's expectation and needs is a driving force managements to provide quality service to current customers as well as to attract new customer **[1].**Servqual model is a gauge of how customers perceive a company's quality of service when they receive it **[2].**And then, this measurement is achieved through a comparison between customer expectation for how they should be provided a service and what they ultimatelyobtain [2]. Servqual approach to examine the gap between customers' general expectations of a service and their perceptions of the service received by a specific service provider[3].

To find the cause of the highest negative gap value used root causes analysis. Root cause analysis is a lean tool used to identify the root causes of problems so that the problems can be eliminated at their base [4]. Root Cause Analysis was used to identify and understand in a systematic way the underlying reasons why a problem or error occurs **[5].**The purpose of this study is to determine the level of service quality and attributes that affect the quality of service. To achieve these objectives, the measurement of service quality is done by measuring the level of service satisfaction to be able to know the level of perception, gap and level of expectation from the consumer to service provider side. Measurement is done using service quality or SERVQUAL method is a method of measuring the level of customer satisfaction by measuring each attribute in each dimension that will eventually be obtained a gap value. So with the measurement of service of quality by servqual method can be known level of service quality provided by PT "X".

II. METHODS

The research method is mix methods by distributing questionnaires and information directly from consumers who have received services from PT. "X". Respondents were obtained by random sampling. There are several stages in this research, namely: First stages of compilation of variables and indicators of research as a questionnaire instrument, then second stages of data collection include interviews and observations through the spread of closed and open questionnaires. The next step is data processing including validation and reliability testing, calculation of service quality

level with weighting. Then the fourth stages of the results and discussion includes the analysis of the results of the calculation of service quality that has been given to consumers.The variables used are tangible, responsible, reliable, empathy, and assurance, and then each variable will be breakdown with an attribute which represents the variable

III. RESULT AND DISCUSSION

The stages in conducting this research is the identification of variables, data collection, data processing and analysis of results and discussion.

Variable Identification Stage

The stage of identification of variables and attributes is done with the approach of service quality concept, which is by using dimension on servqual concept that is tangible, responsible, responsive, assurance, empathy. Variables and indicators to measure the quality of service are listed in table 1. Then from each variable is downgraded into several indicators.

TABLE 1. VARIABLE AND ATTRIBUTE IN SERVICE OF QUALITY PT. "X"

Variable	NO.	Attribute
TANGIBLE	1.	Store Cleanliness covers all aspects of the condition.
	2.	Product Structuring includes lay out where its product.
	3.	Room condition includes temperature and lighting room
	4.	Availability of parking location.
	5.	Appearance employee or shopkeeper
REALIABILITY	6.	The timeliness of the store opening hours corresponds to the billboard installed in each store.
	7.	Employees have the knowledge and ability to maintain and serve customers.
	8.	The discipline of employees in managing the store includes the supply of goods in the Display etc.
	9.	The ability of employees in answering and explaining to consumers.
	10.	Information Systems are always good, including the smooth process of computerization.
RESPONSIVENESS	***11.***	Speed of employee in handling trouble happened
	12.	Speed of cashier in doing service.
	13.	The speed of the shop keeper in doing the service.
	14.	Speed of employees in responding to complaints from consumers.
	15.	The speed of employees in responding to requests as well as answering consumer questions.
ASSURANCE	***16.***	Clarity of information provided by employees to consumers (Promotion, etc.)
	17.	Completeness of facilities and infrastructure store (Parking Security, etc.)
	18.	The suitability between the amount and type of shopping with the receipt.
	19.	Hospitality and courtesy of employees in serving consumers.
	20.	Legality of all products sold, Halal, Healthy, and Expiration date and permitted.
EMPATHY	***21.***	The patience of employees in serving consumers
	22.	Patience in buying explanations to consumers.
	23.	Remind and offer products other than those purchased.
	24.	The patience of chassis officers in providing services.
	25.	Employees are sympathetic by greeting the first time a customer enters the store

Data Collection Stage

The stage of data collection is done by spreading questionnaires to consumers who ever get service from PT. "X". The questionnaire consisted of 3 sections: the level of importance, the level of perception and the level of expectation. Using 4 points of assessment, namely: point1 is very unsatisfactory; point 2 is not satisfactory; point 3 is satisfactory; and point 4 is very satisfying.

Data Processing Stage

At the stage of data processing done by testing the validation and reliability. A data is said to be valid, if the corrected value of total correlation is greater than 0.3. If less than 0.3 the data is invalid. Then the data is said reliable if the value of cronbach's alpha> 0.6. Based on the validation and reliability testing shows that all valid data contained in table 2, table 3, and table 4. And all reliable data contained in table 5, so it can be forwarded for further calculation and analysis.

TABLE 2. TEST OF VALIDATION OF EXPECTATION LEVEL

No	Attribute	*corrected item-total correlation value*	Minimum Value	Note
1	TAN1H	0,556	0,3	Valid
2	TAN2H	0,556	0,3	Valid
3	TAN3H	0,354	0,3	Valid
4	TAN4H	0,581	0,3	Valid
5	TAN5H	0,373	0,3	Valid
6	REA6H	0,429	0,3	Valid
7	REA7H	0,454	0,3	Valid
8	REA8H	0,346	0,3	Valid
9	REA9H	0,594	0,3	Valid
10	REA10H	0,472	0,3	Valid
11	RES11H	0,392	0,3	Valid
12	RES12H	0,556	0,3	Valid
13	RES13H	0,416	0,3	Valid
14	RES14H	0,618	0,3	Valid
15	RES15H	0,440	0,3	Valid
16	ASS16H	0,468	0,3	Valid
17	ASS17H	0,351	0,3	Valid
18	ASS18H	0,479	0,3	Valid
19	ASS19H	0,404	0,3	Valid
20	ASS20H	0,521	0,3	Valid
21	EMP21H	0,322	0,3	Valid
22	EMP22H	0,372	0,3	Valid
23	EMP23H	0,415	0,3	Valid
24	EMP24H	0,465	0,3	Valid
25	EMP25H	0,633	0,3	Valid

TABLE 3. TEST OF VALIDATION OF PERCEPTION LEVEL

NO	Attribute	*corrected item-total correlation value*	Minimum value	Note
1	TAN1P	0,557	0.3	Valid
2	TAN2P	0,346	0.3	Valid
3	TAN3P	0,332	0.3	Valid
4	TAN4P	0,414	0.3	Valid
5	TAN5P	0,411	0.3	Valid
6	REA6P	0,477	0.3	Valid
7	REA7P	0,330	0.3	Valid
8	REA8P	0,330	0.3	Valid
9	REA9P	0,609	0.3	Valid
10	REA10P	0,354	0.3	Valid
11	RES11P	0,423	0.3	Valid
12	RES12P	0,327	0.3	Valid
13	RES13P	0,453	0.3	Valid
14	RES14P	0,535	0.3	Valid
15	RES15P	0,453	0.3	Valid
16	ASS16P	0,749	0.3	Valid
17	ASS17P	0,749	0.3	Valid
18	ASS18P	0,379	0.3	Valid
19	ASS19P	0,506	0.3	Valid
20	ASS20P	0,428	0.3	Valid
21	EMP21P	0,586	0.3	Valid
22	EMP22P	0,368	0.3	Valid
23	EMP23P	0,667	0.3	Valid
24	EMP24P	0,379	0.3	Valid
25	EMP25P	0,330	0.3	Valid

Based on data processing in table 2, table 3, and table 4 shown that all data valid and reliable, so the data can be done next processing that is calculate the value of customer satisfaction. Table 6 shows the calculation of the level of service quality provided by PT. "X". Measurement of service quality is gained by reducing the perception value with the expected value of each attribute. Then the result is multiplied by the weight obtained from the value of importance. So the calculation result is got the value of servqual weighted. Table 6, shown result of calculation of service of quality by PT."X".

III. ANALYZE AND DISCUSSION

consumers is the same as what is received by consumers. The value is contained in the responsiveness variable in attribute number 16, namely clarity of information provided by the employee to the consumer, e.g. promotion, etc. his means that consumers are satisfied with the service provided by PT.X "for this attribute.

Based on table 6, shows that assurance variable in attribute number 17, namely completeness of facilities and infrastructure store Parking Security, etc.) the value is a value gap is -0.0802. Based on root cause analyze, be known the root cause of the highest negative value, namely: a. Often there is a loss of consumer motor despite the existing CCTV, then often the loss of helmets owned by consumers. The incident was caused by the absence of a security guard or parking area in the parking area.

So one solution is to add a security workforce or parking attendants, although it is free, it can know and control in and out of vehicles and minimize the loss of both motorcycles and consumer helmets.

IV. CONCLUSION

Based on the research that has been done can be known conclusion, namely: there is a gap value of 0.00 which means that the consumer is satisfied, there are on responsiveness variables and attribute clarity of information provided by the employee to the consumer, e.g. promotion, etc.. Then the highest negative gap value of -0.082 is in assurance variable, with attribute completeness of facilities and infrastructure store (Parking Security, etc.). This means that consumers are not satisfied with the service of this attribute. The value of the highest negative gap is caused by several things i.e. first, often there is a loss of consumer motor despite the

Based on table 6, it is seen that there is a value of 0.00. This shows that the quality of service expected by existing CCTV, then often the loss of helmets owned by consumers. The incident was caused by the absence of a security guard or parking area in the parking area. The solution is to add a security workforce or parking attendants, although it is free, it can know and control in and out of vehicles and minimize the loss of both motorcycles and consumer helmets.

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REFERENCES

[1] Aljasser A.I., Sasidhar B., (2016)., “Bank Customers Perception on Service Quality and Customer Satisfaction in Saudi Arabia”., European Journal of Business and Social Sciences, Vol.4 No.11, ISSN : 2235-767X.

[2] Handrinos., C., M., et.al., (2015)., Using the Servqual Model to Evaluate the Quality of Services for a Farm School Store”., Journal of Marketing and Consumer Behavior in Emerging Market, Vol.1., No.1

[3] Munhurrun., R. P., et.al., (2010)., Service Quality in The Public Service., International Journal of Management and Marketing Research., Volume.3., No.1.

[4] Das., P., and Nath., T., (2015)., Root Cause Analysisi of the Major Equipment Breakdown Problems of The Tube Section of a FMCG Company as an Approach to Improve OEE., International Journal of Engineering Trends and Technology (IJETT), Volume 27, No. 4.

[5] Vincent, C.A. (2004) Analysis of Clinical Incidents: A Window on the System Not a Search for Root Causes. Quality and Safety in Health Care, 13, 242-243. http://dx.doi.org/10.1136/qshc.2004.010454

TABLE 4. TEST OF VALIDATION OF IMPORTANCE LEVEL

NO	Attribute	*corrected item-total correlation value*	Minimum value	Note
1	TAN1P	0,670	0.3	Valid
2	TAN2P	0,835	0.3	Valid
3	TAN3P	0,596	0.3	Valid
4	TAN4P	0,713	0.3	Valid
5	TAN5P	0,635	0.3	Valid
6	REA6P	0,596	0.3	Valid
7	REA7P	0,596	0.3	Valid
8	REA8P	0,400	0.3	Valid
9	REA9P	0,441	0.3	Valid
10	REA10P	0,381	0.3	Valid
11	RES11P	0,649	0.3	Valid
12	RES12P	0,670	0.3	Valid
13	RES13P	0,835	0.3	Valid
14	RES14P	0,596	0.3	Valid
15	RES15P	0,713	0.3	Valid
16	ASS16P	0,635	0.3	Valid
17	ASS17P	0,596	0.3	Valid
18	ASS18P	0,329	0.3	Valid
19	ASS19P	0,400	0.3	Valid
20	ASS20P	0,441	0.3	Valid
21	EMP21P	0,381	0.3	Valid
22	EMP22P	0,649	0.3	Valid
23	EMP23P	0,703	0.3	Valid
24	EMP24P	0,400	0.3	Valid
25	EMP25P	0,613	0.3	Valid

TABEL 5. TEST OF RELIABILITY EACH DIMENTION

No	Dimention	*Cronbach's Alpha Value*	Minimum Value	Note
1	Expectation	0,888	0.6	Reliabel
2	Perception	0,899	0.6	Reliabel
3	Importance	0,932	0,6	Reliabel

TABLE 6. SERVICE OF QUALITY MEASUREMENT OF CONSUMER WEIGHTED SATISFACTION

No	Variable and attribute	Perception rate	Expectation Rate	Servqual Value without weighted	Priority Improvement without weighted	Weighted	Servqual Value with weighted	Priority Improvement with weighted
1	TAN1	3,133	3,200	-0,067	11	0,039	-0,0038	17
2	TAN2	3,000	3,333	-0,333	7	0,041	-0,0189	10
3	TAN3	3,133	3,333	-0,200	9	0,040	-0,0113	14
4	TAN4	3,133	3,333	-0,200	9	0,040	-0,0113	14
5	TAN5	3,200	3,400	-0,200	9	0,040	-0,0113	14
6	REA6	2,933	3,333	-0,400	6	0,040	-0,0228	9
7	REA7	3,067	3,333	-0,267	8	0,040	-0,0152	12
8	REA8	3,067	3,267	-0,200	9	0,039	-0,0114	13
9	REA9	3,267	3,467	-0,200	9	0,040	-0,0114	13
10	REA10	3,067	3,467	-0,400	6	0,039	-0,0228	9
11	RES11	3,133	3,600	-0,467	5	0,043	-0,0260	5
12	RES12	2,800	3,667	-0,867	2	0,039	-0,0483	2
13	RES13	3,200	3,600	-0,400	6	0,041	-0,0223	7
14	RES14	3,000	3,400	-0,400	6	0,040	-0,0223	7
15	RES15	3,067	3,600	-0,533	4	0,040	-0,0297	4
16	ASS16	3,200	3,200	0,000	12	0,040	0,0000	19
17	ASS17	2,333	3,267	-1,400	1	0,040	-0,0802	1
18	ASS18	3,133	3,133	-0,133	10	0,038	-0,0076	15
19	ASS19	3,067	3,600	-0,600	3	0,039	-0,0344	3
20	ASS20	3,067	3,533	-0,400	6	0,040	-0,0229	8
21	EMP21	3,067	3,200	-0,133	10	0,039	-0,0073	16
22	EMP22	3,067	3,267	-0,333	7	0,043	-0,0183	11
23	EMP23	3,067	3,133	-0,067	11	0,044	-0,0037	18
24	EMP24	3,133	3,600	-0,467	5	0,039	-0,0256	6
25	EMP25	3,133	3,533	-0,467	5	0,041	-0,0256	6