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Service Quality Analysis in Retail Industry using Servqual and Kano Model

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ABSTRACT

In the retail industry, service quality is the main consideration and the quality and completeness of the products offered. The recent conditions that result in declining sales turnover at most of the retail industries in Surabaya prompted this research to be carried out. In this study, an analysis of the service quality in one of the retail industries in Surabaya will be carried out. The method used is the integration between servqual and Kano models. Both methods are used because they are proven to show good results in previous research. The results obtained from this study are that several service attributes need to be improved because of the negative satisfactions value result. Those attributes are the availability of items location instruction. Item price should be matched with the price tag, standard pricing, safety parking, safety shopping, good salesperson, and careful cashier.

Keywords: Service quality, servqual, kano model, retail industry

Introduction

Indonesia is an archipelagic country with the 4th largest population globally (Madyaningrum et al., 2018). The large population also affects consumption. The retail industry is spread everywhere to be able to meet the demand in each existing market. Competition in the retail industry is getting tougher, forcing retail owners to improve the services provided. Lately, retail has experienced a problematic condition. Some have even gone bankrupt (Colline, 2020). Some policies have been carried out, such as conducting promotions and offering discounts, but the condition is not improving. One of the most influential is the quality of service in retail industries that has not changed. The services provided are still manual. In Industry 4.0, digitalization is one of the most important factors (Lee et al., 2019). Internet of Things (IoT) is used everywhere (Singh et al., 2020).

In this research, an analysis of service quality will be carried out at one of the retailers in Surabaya. Servqual and kano methods are used in this research. The servqual method is a method that provides important information about customer satisfaction level (Horodecka & Odlanicka-Poczobutt, 2019), while the Kano model can be used to determine how good the service can satisfy customers (Sedayu & Santoso, 2020). Kano model analyzed the customer needs to determine the requirement of the product/ services (Južnik & Kozar, 2017).

Servqual and Kano have been widely used in previous studies and generated good results. Those studies such as Khosravi Zadeh and Zohrevandian (2017), Rinanto et al. (2019), Tehranineshat et al. (2021) integrated those methods to measure quality service in the educational sector. Beheshtinia and Farzaneh Azad (2019) and also Fatahi et al. (2020) use both methods in the hospitality sector and many others.

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Material and Method

Sampling was done randomly with an initial sample of 40 people. Furthermore, based on the initial sample, the number of samples needed in this research was calculated. The number of samples used in this research is 125, with a 95% confidence interval. This research methodology can be seen in Figure 1.

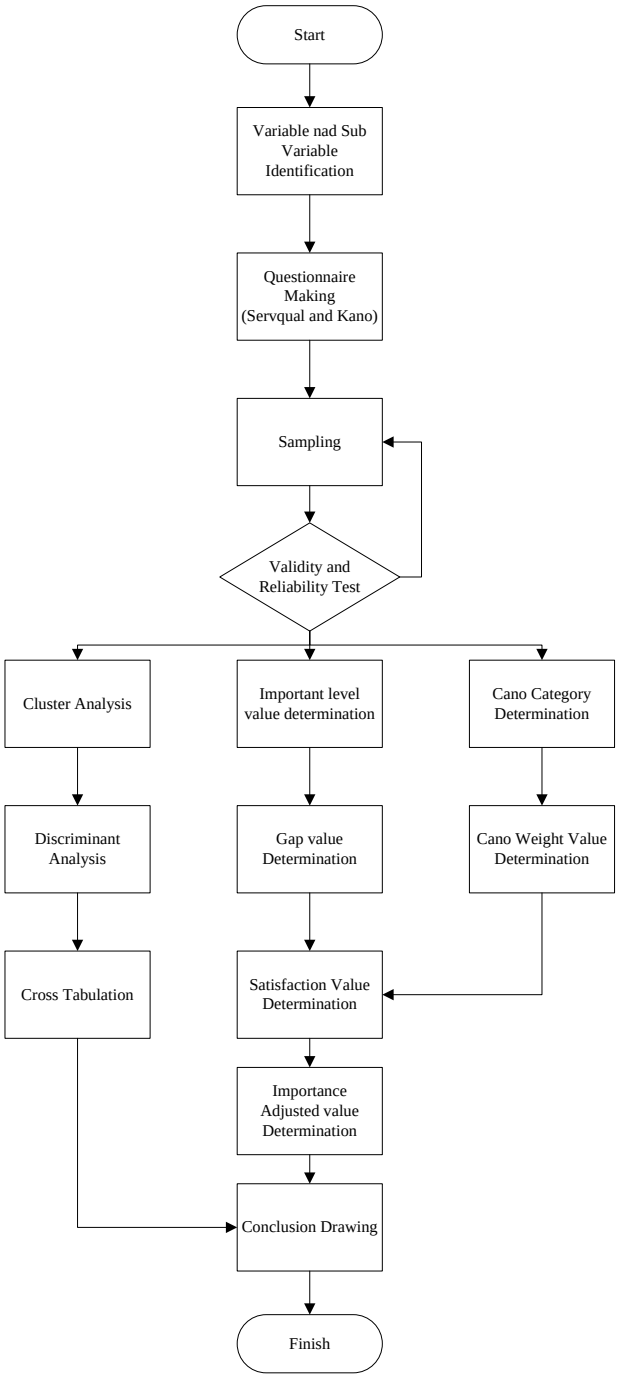

Figure 1. Methodology flowchart

Attributes and sub-attributes that used in this research are:

1. Tangible,

Belongs to:

a) Strategic location (X1)
b) Lighting (X2)
c) Availability of air conditioner (X3)
d) Cleanliness and coziness of the store (X4)
e) Interior and exterior design (X5)
f) Nice song to hear (X6)
g) The number of the cashier (X7)
h) Item location instructions (X8)
i) Ease of using Credit card (X9)
j) Convenient of deposit counter (X10)

2. Reliability

Belongs to:

a) Completeness (X11)
b) Good layout of the products (X12)
c) Good quality products (X13)
d) Item price matches with the price tag (X14)
e) Standard price (X15)

3. Assurance

Belongs to:

a) Safety parking lot (X16)
b) Safety shopping (X17)
c) The nice salesperson (X18)
d) Careful cashier (X19)

4. Responsive

Belongs to:

a) Quick to help before being asked (X20)
b) Responsiveness (X21)

5. Empathy

Belongs to:

a) Care (X22)
b) Offering discounts, bonuses, gifts (X23)
c) Respond quickly to complaints and suggestions (X24)

Result and Discussion

Cluster and discriminant analysis

The cluster and discriminant test results can be seen in Table 1 below. For 2 clusters, 46 respondents belong to cluster 1, and the rest belong to cluster 2. For 3 clusters, 50 respondents belong to cluster 1, 30 in cluster 2, and the rest belong to cluster 3 and so on.

Table 1. K-Means cluster and diskriminant result test

2 *Cluster*	**3 *Cluster***	**4 *Cluster***
Cluster 1 = 46	*Cluster* 1 = 50	*Cluster* 1 = 20
Cluster 2 = 74	*Cluster* 2 = 30	*Cluster* 2 = 52
	Cluster 3 = 40	*Cluster* 3 = 27
		Cluster 4 = 21
Persentage of correct = 98,3%	Persentage of correct = 93,3%	Persentage of correct = 90,0%

Table 2. ANOVA for K-Means Cluster for 2 cluster

Respondent Variables	F	Sig.	Result
Gender	4.314	0.040	Significant
Age	28.613	0.000	Significant
Status	29.490	0.000	Significant
Education	5.900	0.017	Significant
Job	391.146	0.000	Significant
Salary	71.112	0.000	Significant

Based on Table 2, because the significant value is greater than 0.05, clusters 1 and 2 are different. Attributes that contribute to the difference between those clusters are gender, age, status, education, profession, and salary.

Cross-tabulation analysis

The cross-tabulation analysis is used to determine the correlation between variables with the cluster which is formed. The cross-tabulation result seen in Table 3 shows the value of all chi-square from the calculation is greater than the chi-square with the sign. Value of 0.05 means that all the variables correlate with the cluster, and the decision rejects Ho.

Table 3. Cross tabulation result

Respondent Variables	*Chi-Square Calculation*	df	*chi-square* (α = 0.05)	Decision
Gender	4.233	1	3.84	Reject Ho
Age	24.001	3	7.81	Reject Ho
Status	28.344	2	5.99	Reject Ho
Education	11.838	4	9.49	Reject Ho
Job	102.534	5	11.07	Reject Ho
Salary	45.441	3	7.81	Reject Ho

Demographic of respondents

From Table 4, we know who the respondents in this research are. Characteristics of the respondents affected the result of the test.

Table 4. Demographic characteristic of respondents

Variable		n (%)
Gender		
	Male	64 (53,3)
	Female	56 (46,7)
Age		
	≤ 20 Years old	22 (18,3)
	21 – 30 Years old	44 (36,7)
	31 – 40 Years old	24 (20)
	> 40 Years old	30 (25)
Status		
	Single	59 (49,16)

To be continued…

	Married	61 (50,8)

Education level		
	Primary and secondary	75 (62,5)
	Post secondary	45 (37,5)
Job		
	Student	34 (28,3)
	Salary man	43 (35,8)
	Enterpreneur	22 (18,3)
	Others	21 (17,5)
Salaries		
	< Rp 1 juta	50 (41,7)
	Rp 1 – Rp 2,5 juta	32 (26,7)
	Rp 2,5 – Rp 5 juta	24 (20)
	> Rp 5 juta	14 (11,7)

Gap value and customer satisfaction value determination

The value of the gap is obtained by subtracting between the value of perception and expectation. A positive value indicates that customer perception exceeds reality, so the quality attribute needs to be improved. The satisfaction value is obtained from Eq. 1 below. The greater the satisfaction value, the more satisfied customer with the services provided and vice versa. The gap value and satisfaction value for each attribute can be seen in Table 5.

$$Customer\ satisfaction\ value = Average\ importance\ value\ attribute\ i\ x\ Gap\ attribute\ i \quad (1)$$

Table 5. Gap value and customer satisfaction value result

Dimensi	Pernyataan	Persepsi	Harapan	*Gap*	Average Importance value	Satisfaction Value
Tangible	X1	4.23	4.09	0.14	4.28	0.59
	X2	4.33	4.05	0.28	4.35	1.22
	X3	4.36	4.14	0.22	4.41	0.97
	X4	4.41	4.24	0.17	4.44	0.76
	X5	3.68	4.31	-0.63	4.13	-2.6
	X8	4.04	4.18	-0.14	4.16	-0.58
	X9	4.25	3.88	0.37	4.04	1.49
Reliability	X10	4.37	4.26	0.11	4.43	0.49
	X12	4.41	4.22	0.19	4.44	0.84
	X13	4.46	4.44	0.02	4.48	0.09
	X14	3.85	4.12	-0.27	4.03	-1.09
Assurance	X16	3.82	4.29	-0.47	4.07	-1.91
	X17	4.04	4.27	-0.23	4.16	-0.96
	X18	4.07	4.25	-0.18	4.25	-0.77
Responsiveness	X19	4.11	4.35	-0.24	4.21	-1.01
	X21	4.13	4.04	0.09	4.22	0.38
Empathy	X22	4.26	3.61	0.65	3.98	2.59
	X23	4.14	4.11	0.03	4.33	0.13
	X24	3.98	3.87	0.11	4.13	0.45

Kano weight and adjusted importance result

The output of the Kano model is a Kano weight. Kano weight is used to calculate the adjusted importance value for each attribute (Table 6) following Eq. 2.

$$Adjusted\ Importance\ value = Customer\ satisfaction\ value\ attr.i\ x\ Kano\ weight\ attr.i \quad (2)$$

Table 6. Kano weight and adjusted importance table

Dimensions	Attributes	Customer satisfaction value	Kano Categories	Kano Weight	*Adjusted Importance*
Tangible	Strategic location (X1)	0.59	O	2	1.2
	Lighting (X2)	1.22	O	2	2.44
	Availability of air conditioner (X3)	0.97	O	2	1.94
	Cleanliness and coziness of the store (X4)	0.76	O	2	1.51
	Interior and exterior design (X5)	-2.6	A	4	-10.4
	Item location instructions (X8)	-0.58	O	2	-1.16
Reliability	Ease of using Credit card (X9)	1.49	I	1	1.49
	Convenient of deposit caunter (X10)	0.49	M	1	0.49
	Good layout of the products (X12)	0.84	O	2	1.69
	Good quality products (X13)	0.09	O	2	0.18
	Item price match with the price tag (X14)	-1.09	O	2	-2.18
Assurance	Safety parking lot (X16)	-1.91	O	2	-3.83
	Safety shopping (X17)	-0.96	O	2	-1.91
	Nice sales person (X18)	-0.77	O	2	-1.53
	Careful cashier (X19)	-1.01	O	2	-2.02
Responsiveness	Responsiveness (X21)	0.38	A	4	1.52
	Care (X22)	2.59	M	1	2.59
Empathy	Offering discounts, bonuses, gifts (X23)	0.13	A	4	0.52
	Respond quickly to complaints and suggestions (X24)	0.45	O	2	0.91

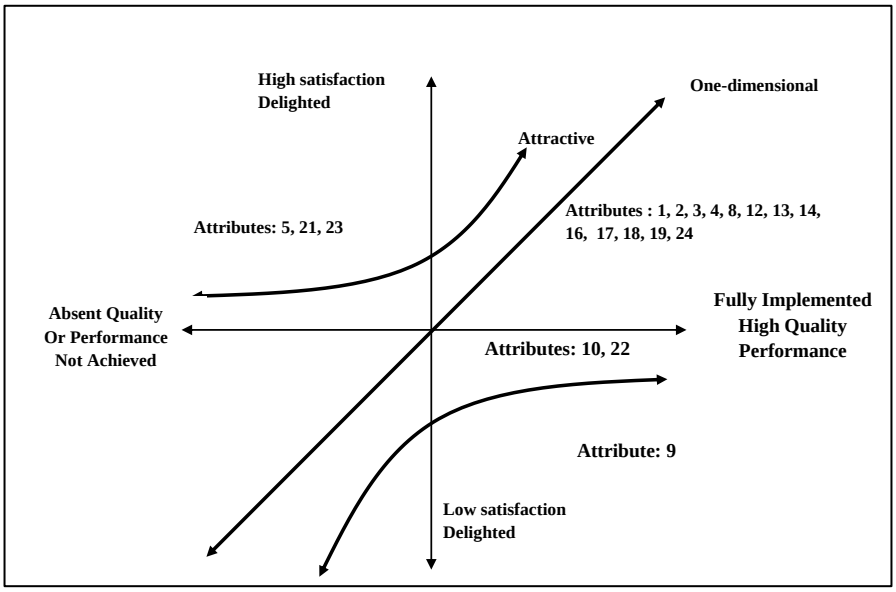

Figure 1. Kano curve

From the Kano curve Fig. 1 Above, it can be seen that Attributes belong to the One-dimensional or performance needs category where if the service exists, then the customer will be satisfied and vice versa, namely strategic store location, lighting/lighting, existing of air conditioning, cleanliness, and comfort of the storeroom, clear instructions for the location of goods, the layout of goods, guaranteed quality of goods (no dents, open packaging, damaged), the price of goods listed by the price of the cashier, parking space safe, shopping security, friendly, polite, orderly and neat sales clerk, cashier's ability to calculate carefully, complaints and suggestions are taken seriously. Attributes of service belonging to the category of Interesting or excitement needs where customer satisfaction will increase very high with the increase in attribute performance. However, a decrease in the performance of attributes will not cause a decrease in the level of satisfaction, namely interior and exterior design, fast cashier service, and giving discounts/bonuses/gifts. Must-be or basic needs where the customer becomes dissatisfied if the performance of the attribute in question is low. However, customer satisfaction will not increase far above neutral even though the performance of these attributes is high, namely practical, fast and safe goods storage facilities and employee attention to customers. Indifferent if the absence of a service does not affect customer satisfaction, which belongs to this category is using a credit card.

Conclusion

The level of customer satisfaction with the services provided is quite good, with the five biggest priorities: the attribute of attention to customers with a value of 0.65, being able to use a credit card with a value of 0.37, lighting/lighting with a value of 0.37. of 0.28, the presence of air conditioning with a value of 0.22, and the cleanliness and comfort of the shop room with a value of 0.17. But, seven attributes still show negative value in customer satisfaction value and adjusted importance value such as availability of items location instruction, item price should be matched with the price tag, standard pricing, safety parking, safety shopping, good salesperson, and the careful cashier.

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