

The Customer Satisfaction Measurement Using SERVQUAL Method: Case Study In Printing Company

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ABSTRACT

Printing business development in Makassar increased significantly, reaching 1200 businesses in 2022, making business conditions more competitive. Besides product innovation, service quality is an important factor in winning the market competition. Kedai Kaos Makassar is a Small Medium Enterprise (SME) that produces screen printing products. Kedai Kaos Makasar needs to evaluate service qualities to win the market competition. The priorities of service attributes must be determined to solve the biggest problem in the service quality area. The SERVQUAL method is one tool that can use the determination of quality criteria gaps in the business process. The differences between perception and expectation can be evaluated by the SERVQUAL questioners. Importance Performance Analysis (IPA) is used for matrix analysis with four quadrants to describe a scale priority. This research aims to find out how the level of consumer satisfaction and priority attributes influence service quality in Kedai Kaos Makassar. The sample in this study amounted to 72 people with purposive sampling. The SERVQUAL method which had five attributes was used in this study. The IPA value was used for getting attribute priority. The perception and expectation values were 4.19 and 4.68 which meant customer dissatisfaction with Kedai Kaos Makassar's service. The SERVQUAL dimension scores (reliability, responsiveness, assurance, empathy, and tangible) were -0.74; -0.40; -0.61; -0.62; -0.43 sequentially. All attributes were negative values. The IPA value in the first quadrant was attributed to T3, T4, T10, T8, and T5 considered the most important but not satisfying.

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1. INTRODUCTION

The face of market competition is the higger nowadays. The market characteristic has made major changes in social economics, shopping cultures, and market tastes. In the globalization era, businesses grow massively and certainly. Businesses are demanded to improve all aspects of their business process. A company must have the best product quality and service quality to win the market competition. The more competitive company makes it easy to get more consumer loyalty. One of the factors that encourages companies to achieve Total Quality Service (TQM) is service quality for the customers. Quality must begin with customer needs and end with customer perceptions (Kolter. 1997). Service quality is the most important factor for companies to grow their market share. Feedback from customers is needed for improving the company's service.

Loyal consumers have an important role for companies because loyal consumers can increase the company's profit and existence (Naini et al., 2022). A loyal customer is a consumer committed to a brand that draws with rebuying again consistently (Rita et al., 2019). One of the forming factors for loyal is consumer satisfaction (Walker. et al, 2001). The quality of service is one of the important factors to increase buy back the products. The service quality is the totality perform of the product and service to make the satisfaction of consumers. The conceptualization of service quality has many perceptions depending on point of view. The definition of customer satisfaction has many interpretations and concepts. The customer experience affected significantly the customer-based brand equity variable (Suprpto and Berlianto. 2023). Customer satisfaction can be defined as what is needed, expected, and wished for the product and service.

The printing industry producers in Makassar increased significantly reaching a thousand two hundred companies in 2022. This situation has made the market more competitive. Many strategies can be adapted to survive in the printing market competition. Some research showed the significant impact of service quality on customer satisfaction in emerging and competing markets (Wahidin et al., 2021). The growth of the printing business in Makassar has made the market more strict. Consumers have many options to choose the best company to produce their needs. Winning the market competition ensures that the service quality must be more than the consumer expectation.

Products of screen-printing have been the favorite product in the printing company. Many demands of screen-printing products have made product innovation and service quality have been important factors to survive in the market. Kedai Kaos Makassar is one of the companies that produce screen-printing products. This company has been developed since 2014. The com-

pany's market share is not only in Makassar but also in all regencies in South Sulawesi. Increasing market competition of screen-printing companies has caused Kedai Kaos Makassar's share to decrease by around 11% in the middle of 2022.

A large number of screen-printing competitors encourages Kedai Kaos Makassar for giving extra service to customers. For encouraging customer service Kedai Kaos Makassar must predict various factors that influence consumer loyalty. The service quality of screen printing in Kedai Kaos Makassar can be measured by several methods. The SERVQUAL method can be used to find the biggest factor influencing a printing company's service quality. The SERVQUAL model is developed based on two major factors namely customer perception and service obtained. The SERVQUAL model has five factors dimensions of service quality including tangibles, reliability, assurance, responsiveness, and empathy. The SERVQUAL method compares discrepancies as a GAP. There are five GAPs. The first GAP is management perception, the second GAP is service quality specification, the third GAP is service delivery, the fourth GAP is external communication, and the fifth GAP is service expectation. In most studies, the five dimensions of SERVQUAL have a significant impact on customer satisfaction; however, some studies found no significant impact on some factors. Importance Performance Analysis (IPA) can be used to find priority improvement factors based on the SERVQUAL method.

Several studies used SERVQUAL to examine customer satisfaction and service quality. These results showed that service quality influenced customer satisfaction. The company must increase customer perception for increasing customer satisfaction (Monica et al., 2017). E-service quality had a significant effect on perceived value. This condition could be seen from the variable path coefficient value was 0.690 which a probability was 0.000 which showed a significant effect ($p < 0.05$). Perceived value had a significant effect on customer satisfaction because the variable path coefficient value was 0.428.

2. RESEARCH METHODS

This study's explanatory research was conducted on 251 people who were loyal consumers from January 2021 to January 2022. The loyal consumer category was who did repeat orders more than three times in a year. This research was done from July 2022 to December 2022. The pre-tested questions were shared in July-August 2022 with a total of 50 loyal consumers. The validity and reliability questionnaire had been analyzed from last August to September 2022. The formal questionnaire which had 14 questions after removing invalid and unreliable questions was used to assess the customer satisfaction of Kedai Kaos Makassar. A total of 72 questionnaires were collected for data analysis. The sample size was calculated using Slovin for finite populations using equation 1:

$$n = \frac{N}{1 + Ne^2} \dots\dots\dots 1$$

Where n is the number of samples, N is the total population, and e is the standard error. Using the standard error was 10%. Therefore the sample size was calculated to be 72 subjects.

Nonprobability sampling was used for collecting data with purposive sampling. The sampling criteria were defined before.

This study used the SERVQUAL method and Importance Performance Analysis (IPA). The SERVQUAL method would analyze consumer satisfaction with the service quality of Kedai Kaos Makassar based on five indicators. The IPA would calculate the mapping result on four quadrants every quadrant showed a priority scale to improve the service quality. The SERSVQUAL questionnaire responses used a Likert scale of 1 to 5 (1: strongly disagree. 2: disagree. 3 uncertain. 4 agree. 5; strongly agree. The fives indicator used in SERVQUAL reliability was three questions, responsiveness was three questions, assurance was 3 questions, empathy was two questions, and tangible was three questions. For collecting data, online interviews with all participants were conducted. The questionnaire consisted of two sections. The first section included the demographic of participants. The second part was the SERVQUAL questionnaire.

3. RESULTS & DISCUSSION

The result of the instrument validation test for all instruments was valid, with the criteria $t_{count} > t_{table}$. The validity result can be seen in **Table 1**.

Table 1. Validation Test Result of Instrument

Instrument	Customer Expectation		Customer Perceived		Description
	t_{count}	t_{table}	t_{count}	t_{table}	
1	5.0549	1.2938	4.5433	1.2938	Valid
2	2.3558	1.2938	1.6740	1.2938	Valid
3	2.5895	1.2938	2.4124	1.2938	Valid
4	3.6135	1.2938	1.5882	1.2938	Valid
5	3.7541	1.2938	1.3616	1.2938	Valid
6	3.8125	1.2938	3.6387	1.2938	Valid
7	3.9411	1.2938	3.9255	1.2938	Valid
8	2.1106	1.2938	4.8284	1.2938	Valid
9	2.2473	1.2938	2.3467	1.2938	Valid
10	3.5553	1.2938	1.9755	1.2938	Valid
11	4.8969	1.2938	2.2683	1.2938	Valid
12	2.1346	1.2938	3.8704	1.2938	Valid
13	2.2193	1.2938	2.0842	1.2938	Valid
14	2.0634	1.2938	3.4567	1.2938	Valid

Source: Data Processed (2022)

A reliability test was conducted to see the consistency of questions which was an indicator of variables or constructs. The result of questioner reliability test was reliable. It meant that the indicators in the questionnaire had consistent. The result of reliability can be seen in **Table 2**.

Table 2. Reliability Test Result

r_{Count (1)}	r_{Count (2)}	r_{Table}	Description
0.3656	0.2658	0.1927	Reliable

1) Customer Expectation (2) Customer Perception

Source: Data Processed (2022)

Respondent Characteristic

In this study, a total of 72 loyal customers were involved, including 49 (68%) people of men, and 23 (68%) people of female. This condition indicated majority of customers whom re-order product were men. All characteristics of respondents can be seen in **Table 3**.

Table 3. Participant Characteristics

Variable	Customer Expectation		Customer Perceived	
	Mean±SD	P-Value	Mean SD	P-Value
Gender				
Male	4.63±0.49	0.0038	4.00±0.71	0.00012
Female	4.68±0.58		4.02±0.59	
Age				
< 20	4.53±0.52	0,0039	3.98±0.73	0.0012
21 - 30	4.64±0.49		4.06±0.67	
> 30	4.68±0.48		3.98±0.67	
Profession				
Student	4.54±0,51	0.00037	4.00±0.68	0.0012
Entrepreneur	4.65±0.49		4.06±0.68	
Employes	4.73±0.46		3.98±0.77	
Civil Servant	4.67±0.49		3.11±0.63	

Source: Data Processed (2022)

According to **Table 3**. Can be seen that the mean of female expectations the bigger than male expectations. The customer perceived mean of females is higher than males perceived. Based on age, getting old is the higher expectation proving by the above 30 age has the highest customer expected value while the highest customer-perceived is old 21 – 30 years. Employees profession who have the highest expectation but also the lowest the customer perceived are

compared with other professions. According to participant characteristics, customer expectation is higher than perceived in all characteristics (gender, age, and profession) because the P-Value of all customer's expectation variables is more than the P-Value of all customer's perceived variables. This condition indicates that the customers are dissatisfied with all customer characteristics.

SERVQUAL Calculation

The SERVQUAL analysis was analyzed by the customer's perceived value and expected value. The expectation value was calculated for all indicators. the expectation value of four ten attributes of Kedai Kaos Makassar service can be seen in **Table 4**.

Table 4. SERVQUAL Expectation Values

No	Attributes	Dimension	Customer Expectation Value	Dimension Values
1	T1	Reliability	4.57	4.66
2	T2		4.60	
3	T3		4.69	
4	T4		4.78	
5	T5	Responsiveness	4.67	4.57
6	T6		4.46	
7	T7	Assurance	4.46	4.74
8	T8		4.72	
9	T9		4.74	
10	T10	Empathy	4.76	4.68
11	T11		4.53	
12	T12		4.75	
13	T13	Tangibles	4.69	4.74
14	T14		4.79	
Mean				4.68

Source: Data Processed (2022)

The customer expectation value shows that the assurance and tangible dimensions are the highest values in the expectation area in Kedai Kaos Makassar. The value of assurance and expectation is 4.74. The lowest customer expectation is responsiveness which a value is 4.57. The tangibles and assurance must be noticed because two dimensions are the most expected by customers. According to attributes for the assurance dimension, Kedai Kaos Makassar must ensure the on-time delivery of products, order suitability, and price match guarantee. Tangible dimensions are comfort outlet convenience (cleanliness, air conditioner, fragrant room). The higher customer expectation is, the more important this dimension is to be noticed by the company.

The perception of customers is one of the variables that mean perceived services that are gotten by customers after getting the services. The perception values are calculated using fourteen

attributes and five SERVQUAL dimensions. The customer-perceived value can be seen in **Table 5**.

Table 5. SERVQUAL Perception Values

No	Attributes	Dimension	Customer Perception Value	Dimension Values
1	T1	Reliability	3.72	3.92
2	T2		3.99	
3	T3		3.93	
4	T4		4.03	
5	T5	Responsiveness	4.15	4.17
6	T6		4.18	
7	T7	Assurance	3.93	4.13
8	T8		4.10	
9	T9		4.36	
10	T10	Empathy	4.08	4.06
11	T11		3.72	
12	T12		4.38	
13	T13	Tangibles	4.69	4.31
	T14		4.32	
Mean				4.19

Source: Data Processed (2022)

The customer perception dimension can indicate that responsiveness is the highest perception of customers. The score of the responsiveness dimension is 4.17. The lowest score of SERVQUAL dimension in customer perception is reliability which a score is 3.92. The reliability dimension must be noticed for improving the customer perceived because the customers get little benefits from this dimension. Based on attributes of reliability, timely product completion is the lowest score (3.72). The lowest dimension in the customer perceived dimension describes that many customers did not receive their orders, not on time.

The service quality in the SERVQUAL method is the comparison of expectation value with perceived value. The comparison of the SERVQUAL dimensions can be seen in **Table 6**.

Table 6. The SERVQUAL Score

Dimension	Perception	Expectation	SERVQUAL Score
Reliability	3.92	4.66	-0.74
Responsiveness	4.17	4.57	-0.40
Assurance	4.13	4.74	-0.61
Empathy	4.06	4.68	-0.62
Tangibles	4.31	4.74	-0.43
Mean	4.19	4.68	-0.56

Source: Data Processed (2022)

In the present study, we can see that not even one is the SERVQUAL score positive. The mean of the gap between perception and expectation is -0.56 . The biggest gap in all SERVQUAL scores is reliability which is -0.74 . The reliability dimension has much of a gap comparing other dimensions. The second biggest gap is empathy which a score is -0.61 . The dimension distance of the Expectation-perception gap can be seen in **Figure 1**.

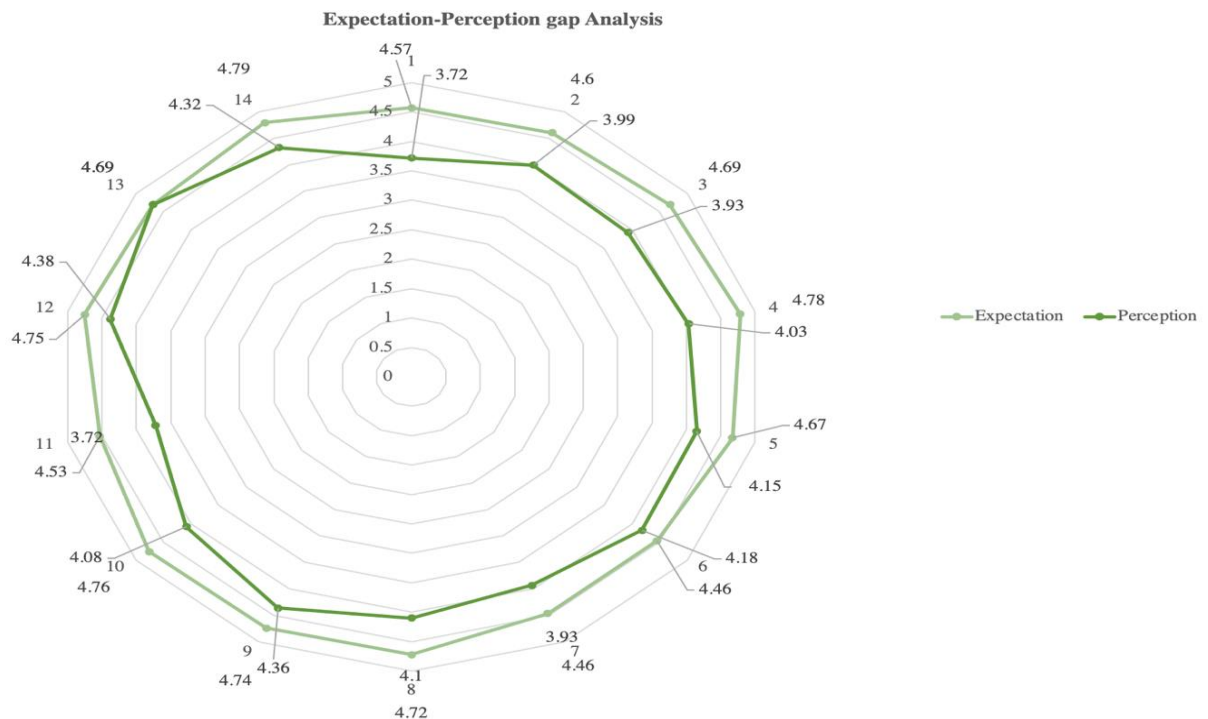


Figure 1. Expectation-Perception Gap Analysis (Dimension and Questions)

Source: Data Processed, 2022

Based on **Figure 1** describes the gap between expectation and perception gap for every dimension. The farthest gap in dimension reliability is attribute T1, which is -0.85 . The attribute T1 is related to a produced time schedule. In the responsiveness dimension, the biggest gap between expectation and perceived is attribute T5 which is described customer service response to customer complaints. The biggest gap in the assurance dimension attributes T8. The T8 attributes are related to the product guarantee. The farthest gap between expectation and perceived in dimension empathy is attribute T11 whose score is -0.81 . The attribute T11 is reflected in customer service attitude in giving service to customers. The biggest gap in the tangible dimension is T14 which is related to the store's physical environment.

Importance Performance Analysis (IPA)

The Importance Performance Analysis (IPA) was used for assessing the interest level and the performance level of attributes. A mean of interest level and performance level were analyzed

on IPA. the X coordinate represented the perception and the Y coordinate represented the expectation. The four quadrants of Kedai Kaos Makssar IPA can be seen in **Figure 2**.

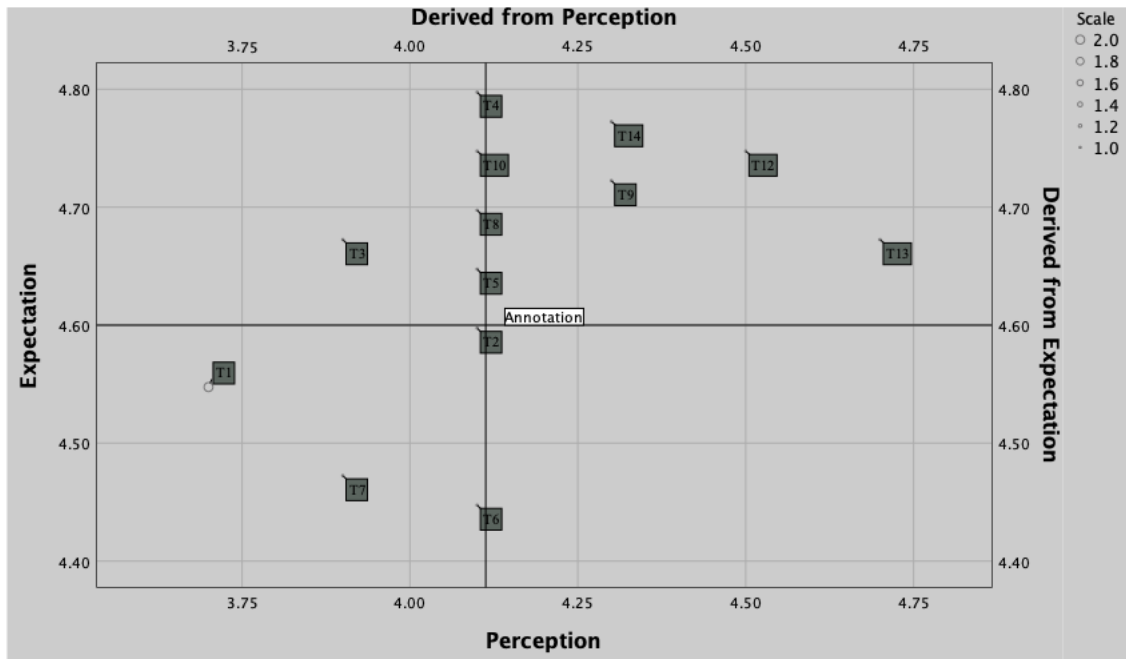


Figure 2. Importance Performance Analysis Matrix

Source: Data Processed, 2022

The IPA matrix shows the importance level and company performance which can be seen in **Figure 2**. In quadrant I, the main priority is attributes T3, T4, T10, T8, and T5. All attributes in Quadrant I are priorities to improve immediately by Kedai Kaos Makassar. The T5 and T8 attributes have been priorities to improve because meet with the biggest gap in the SERVQUAL analysis and position in Quadrant I. The quadrant II as performance defense is T14, T9, T12, and T13. The quadrant III as low priority is T1, T7, and T6. Not even one have the attributes in quadrant IV. No attributes in Quadrant IV describe the customer perceived under the customer's expectation.

The expectation values indicate great hope from customers for the service quality of Kedai Kaos Makassar. Satisfaction can be reached when the services exceed the customer's expectations. Based on SERVQUAL gap analysis, the gap means of expectation-perception is -0.56 which means overall customers are dissatisfied with Kedai Kaos Makassar service quality.

The biggest gap in reliability is -0.74 (attribute T1) which means Kedai Kaos Makassar has to improve that dimension. Kedai Kaos Makassar produces its products with make to order system. In reality dimension, production timelines are key to making the product on time in the customer order. Customer dissatisfaction is a response to a delay in product completion.

4. CONCLUSION & SUGGESTION

The gap between expectation and perception indicated that the service quality of Kedai Kaos Makassar was under the customer's expectation. not even one were attributes of the SERVQUAL scores in the positive area. The biggest dimension expectation was assurance and tangible dimension which were 4.74. The biggest customer-perceived dimension was the tangible which is a 4.31 score. The expectation and perception scores were -0.56, showing lower perceived customer service. Four attributes were the biggest gap in every dimension which were T1, T5, T8, and T11. The reliability dimension was 0.74 which was a priority factor of service quality that was improved. One of the factors in reliability is the product production time schedule. Kedai Kaos Makassar has to ensure the scheduled time for production and delivery on time due to the order deadline.

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