A Combination of Importance-Performance Analysis and Gap Analysis for Improving Quality Service in a Pastry Company

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ABSTRACT

PT. X is a well-known pastry company due to its consistent flavors and high product quality. PT. X saw a decrease in sales while competing businesses saw an increase. Based on the results of the preliminary questionnaire from 33 customers, it is known that customer satisfaction is a factor influencing the decline in sales experienced by PT X. The aim of this research is to identify the factors that influence customer satisfaction and the gap between consumers and management at PT. X and provide recommendations for improving PT. X's service quality to compete with similar companies. This study used an importance-performance analysis, a customer satisfaction index, and a gap analysis to enhance service quality. The findings showed that the customer satisfaction index had a value of 66.78% and that the Cartesian diagram of importance-performance analysis contained seven attributes in quadrant 1, indicating that these attributes require development. The gap analysis results indicate that all attributes have a negative gap value. To increase customer satisfaction, service quality must be improved based on the overall results of data processing. Making SOPs for employees, offering appealing promotions to customers, and rewarding and punishing employees for their efforts are among the recommendations made.

Keywords: Service Quality, Importance Performance Analysis, Customer Satisfaction Index, Gap Analysis.

ABSTRAK

PT. X adalah perusahaan kue kering yang terkenal karena rasa yang konsisten dan kualitas produk yang tinggi. PT. X mengalami penurunan penjualan sementara bisnis pesaing mengalami peningkatan. Berdasarkan hasil kuesioner pendahuluan dari 33 pelanggan diketahui bahwa kepuasan pelanggan menjadi faktor yang mempengaruhi penurunan penjualan yang dialami oleh PT X. Tujuan dari penelitian ini adalah untuk mengidentifikasi faktor-faktor yang mempengaruhi kepuasan konsumen, kesenjangan antara konsumen dan manajemen di PT. X, dan memberikan rekomendasi untuk perbaikan Kualitas layanan PT. X agar dapat bersaing dengan perusahaan sejenis. Penelitian ini menggunakan *Importance Performance Analysis, Customer Satisfaction Index* dan *Gap Analysis* untuk meningkatkan kualitas layanan. Hasil penelitian menunjukkan bahwa indeks kepuasan pelanggan memiliki nilai sebesar 66,78% dan diagram kartesian analisis kepentingan-kinerja terdapat tujuh atribut pada kuadran 1 yang menunjukkan bahwa atribut tersebut perlu dikembangkan. Hasil analisis gap menunjukkan bahwa semua atribut memiliki nilai gap negatif. Untuk meningkatkan kepuasan pelanggan, kualitas layanan harus ditingkatkan berdasarkan hasil pengolahan data secara keseluruhan. Membuat SOP untuk karyawan, menawarkan promosi yang menarik bagi pelanggan, dan memberi penghargaan dan menghukum karyawan atas upaya mereka adalah beberapa rekomendasi yang dibuat.

Keywords: *Kualitas Layanan, Importance Performance Analysis, Customer Satisfaction Index, Gap Analysis.*

1. Introduction

The National Socioeconomic Survey in 2019 shows the consumption of cake dry, biscuits, and cookies nationally in 2014-2018, showing an average growth of consumption of cake dry in Indonesia of 33.31%. The increasing request for cake dry will be accompanied by an increasing amount of producer cake dry nationally (Statistics Industry Manufacturing, 2019). One industry cake dry in Bandung, namely PT. X, or as it is known the name selling IC, also experienced competition with other companies cake dry. In 2019, IC experienced a decrease of 1.21% from 2018. Decreased sales at IC do not occur at the company's competitor because the competitor's

main IC, JC Cookies, experienced increased sales. Based on the results of the interview with the part sale, it is known that there are several complaints from customers to IC customer care; among others, customers feel the employee part sale is not friendly enough in giving service and the time services are provided is not fast enough. For now, the reason for the decline in sales is a survey introduction with a method-spread questionnaire that includes products and services for IC customers.

The questionnaire data is known that satisfaction with customers becomes an influencing factor that declines sales. Therefore, need is a known factor What only give influence Enough big to satisfy IC customers and finding out the gap between consumer, and management at the company as well as give proposal repair for increased quality service so that IC can maintain the customer as well as increase sale through satisfaction customer. Several methods can be used to measure the satisfaction of customers between the Customers Satisfaction Index (CSI) and Importance Performance Analysis (IPA). The Customer Satisfaction Index (CSI) has utility for measuring satisfaction with customers in a manner thoroughly (Aritonang, 2005). Importance Performance Analysis (IPA) was used to measure influencing factors satisfaction among customers. The difference between the second method is the Customers Satisfaction Index (CSI) focused on satisfying customers in a manner thorough while Importance Performance Analysis (IPA) shows factors of satisfaction necessary for customers repaired until factors of satisfaction a must customer maintained by the company In addition to the CSI and IPA research methods It also uses the Service Quality Method (SERVQUAL). this method is a gap analysis method used to know the gap between the performance and expectations of customers of the company.

2. Methods

Description research methods started with studies field destination studies field to get information about the company and see actual conditions at the company, so we can see problems that occur in the company. The field study was done by visiting the company and interviewing a mentor to get information about the company. Furthermore, the identification of the results problem is output from studies that have been done on the company and will become inputs for determining the formula problem. The identification results in the problem are the input for determining the formula problem to be conducted in this research. The formulation of the problem contains the main questions to be studied. The main questions are customer satisfaction with the products and services provided, customers' perception of the services provided by management, and what should be done to improve service quality. Study This wants an objective study, so an objective study is needed. A determination-objective study was obtained based on the formula for the existing problem. Determination variables used for making a questionnaire, the questionnaire's function as an instrument for information related to objective research, its level of reliability, and its high validity (Nugraha, 2018). Variables used in making questionnaires that are terra variables Data collection aims to support research conducted at PT. X. This data collection was carried out with a deployment questionnaire, starting with a questionnaire pretest and continuing with a validity test using the result data questionnaire pretest. If the result data questionnaire pretest is valid, then next do a reliability test. If the result of the questionnaire is reliable, it can spread the actual questionnaire. The first step in making a questionnaire is to determine the dimensions to be used for making a question. According to research, this uses TERRA dimensions (Tjiptono and Chandra, 2019), namely:
a. *Tangibles* or proof physical, related with strength pull about form physique facilities, equipment facilities, and materials used by the business as well as appearance employee.
b. *Empathy*, the business knows its customers' problems, acts in their best interests, provides personal attention to customers and has convenient operating hours.
c. *Reliability* is a company's ability to provide accurate service from the outset without making mistakes and to deliver its services on time.
d. *Responsiveness*, Employee responsiveness refers to their willingness and ability to assist customers and react to requests, as well as inform them when service will be provided and then provide service in a timely way.
e. *Assurance or* Guarantee, Employee behavior can assist with assurance or guarantee.

Making questions by dimensions that have determined with 3 types of questions, namely:
1. Question open, respondent is free to answer. The answer is not specified especially first. For example, opinion personal, exploration question, or question clarification.
2. Question closed, answer respondent has determined and the respondent free choose answers that have estimated. The answer can shape by choice double (two/more) with One or more answers, too shaped answer scale.

3. Question combination open-closed, the answer has been determined, however, the respondent can add an answer or questionnaire next to the question open.

In research, this use questionnaire is closed. The type of answer used is the answer scale. The scale that was used in the interview This is the measurement range. The Likert scale is a scale used to assess someone's or a collection of people's attitudes, opinions, and perceptions of a social phenomenon. This scale has a gradation from very positive strongly agree (5), to very negative like Strongly disagree (1).

Pretests are done for a perfect questionnaire, from various sides that is content, design, validity, and reliability. Test first or content, design, and appearance. Test second for reliability questions (*validity* and *reliability test*). The validity test is testing performed to know how far the difference score is observed scale, reflects the difference between object or moderate characteristics tested compared to with error *semantics* or random. Reliability is something testing carried out for now scale, to what extent capable get consistent results if done evaluation repeated to characteristics certain. Test technique reliability can see in the item valid statement. Mark *Cronbach's alpha* becomes a reliability test reference. As for the criteria mark Cronbach's *alpha* as follows (Malhotra, 2009).

2.1 Importance-Performance Analysis

Martilla and James suggested the first Importance Performance Analysis (IPA) method. This objective for measuring consumer perception of a product or service with priority enhancement in terms of quality is also known as normal or quadrant analysis (Brandt, 2000; Latu & Everett, 2000). The IPA method's main function, namely presenting related information with factor service based on opinion consumers who can push satisfaction but not loyalty, is also a factor that makes it necessary to improve service based on opinion consumers because this consumer is currently dissatisfied with existing service.

2.2 Customer Satisfaction Index

Measurement attributes products or services with an approach that calculates the leaf interest from attribute to determine the level of satisfaction the customer is understanding Customer Satisfaction Index (CSI). CSI also part analysis quantitative of the percentage satisfaction customers in a satisfaction survey customer. In addition, CSI is a method used to determine the level of customer satisfaction from measured product and service attributes (Widodo and Sutopo, 2018).

2.3 Gap Analysis Model

Quality models services that are very well known too much worn until the moment is Gap Analysis Model. There are too many models used as reference study research management and marketing services. Serval is the length of service quality is another name for the gap analysis model (Tjiptono and Chandra, 2019). Quality service is defined as the difference between performance or perception (perception) and expectations on the item that represents field performance special for service. Quality service is an important factor for institution services/services in position self they with strong in a competitive environment (Gagandeep Banga et al, 2013). Importance level quality service something company for respondent consumers obtained variable in dimensions this is very important, so it is very necessary, the factors shaper quality services at the company (Nugraha, 2020).

3. Result and Discussion

3.1 Validity test

A validity test has been done for state-legitimate or valid or not something questionnaires (Ghozali, 2009). In addition, a validity test can also be used to determine the question attributes that have a relevant relationship with the total score. This linkage shows that these attributes can provide support for expressing what is valid if the value of r count ≥ the value of the r table, then the question attribute is declared valid (Wahyuni, 2014). The validity test was performed using the Pearson product-moment correlation technique (Malhotra, 2009). The following are the validity test results of 18 questions performance that have been filled in by respondents shown in Table 1.

Table 1. Validity Test

No	Statement	r table	r count	Result
1	Employees wear uniforms IC	0,344	0,55972338	valid
2	IC Cookies employees look neat and clean	0,344	0,59819128	valid
3	IC cookies have exact operating hours	0,344	0,40844341	valid
4	Employees provide suggestions when respondents select products	0,344	0,84917737	valid
5	IC Cookies products according to the wishes of the respondents	0,344	0,47580794	valid
6	IC Cookies employees prioritize respondents when serving	0,344	0,91351855	valid
7	The delivery service between IC cookies is maximized	0,344	0,6003555	valid
8	The quality of IC cookies products is by the selling price	0,344	0,50128591	valid
9	The service time for opening hours of IC Cookies is as it should be	0,344	0,62903333	valid
10	There are no records for products sold by IC cookies	0,344	0,550962	valid
11	IC Cookies provides fast service	0,344	0,91244943	valid
12	IC cookies accept criticism and suggestions from customers	0,344	0,85031463	valid
13	At busy times employees still serve well	0,344	0,91249377	valid
14	IC cookies respond quickly to criticism/suggestions	0,344	0,81571312	valid
15	IC cookies employees know product details well	0,344	0,94122339	valid
16	IC cookies employees serve politely	0,344	0,88561449	valid
17	Respondents will buy again IC cookies product	0,344	0,89438744	valid
18	Employees appear well-trained and competent	0,344	0,91746925	valid

Based on the results of the validity test performance all questions in the questionnaire have been valid. Furthermore, will continue the reliability test with the deployment questionnaire. Validity test level interest for customers is shown in Table 2.

Table.2 Validity Test

No	Statement	r table	r count	Result
1	Employees wear uniforms IC cookies	0,344	0,44	valid
2	IC Cookies employees look neat and clean	0,344	0,41	valid
3	IC cookies have exact operating hours	0,344	0,67	valid
4	Employees provide suggestions when respondents select products	0,344	0,53	valid
5	IC Cookies products according to the wishes of the respondents	0,344	0,40	valid
6	IC Cookies employees prioritize respondents when serving	0,344	0,52	valid
7	The delivery service between IC cookies is maximized	0,344	0,36	valid
8	The quality of IC cookies products is by the selling price	0,344	0,66	valid
9	The service time for opening hours of IC Cookies is as it should be	0,344	0,45	valid
10	There are no records for products sold by IC cookies	0,344	0,39	valid
11	IC Cookies provides fast service	0,344	0,60	valid
12	IC cookies accept criticism and suggestions from customers	0,344	0,54	valid
13	At busy times employees still serve well	0,344	0,53	valid
14	IC cookies respond quickly to criticism/suggestions	0,344	0,38	valid
15	IC cookies employees know product details well	0,344	0,52	valid
16	IC cookies employees serve politely	0,344	0,67	valid
17	Respondents will buy again IC cookies product	0,344	0,66	valid
18	Employees appear well-trained and competent	0,344	0,66	valid

Based on the results of the validity test level interests, all questions in the questionnaire have been valid. Furthermore, will continue the reliability test with the deployment questionnaire.

3.2 Reliability Test

The reliability test is an index showing to what extent tool measuring can be trusted or dependable. A reliability test was done using SPSS software. Reliability test results can be seen in Figure 1

Case Processing Summary

		N	%
Cases	Valid	33	100.0
	Excluded[a]	0	.0
	Total	33	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.954	18

Figure 1. Reliability test results performance

Based on the results of the reliability test the is known that the tool measuring performance can dependably results of Cronbach's alpha > 0.8 the reliability questionnaire This good and got done deployment questionnaire. Based on the results of the reliability test it is known that the tool measuring the level of interest can dependable or reliable results Cronbach's alpha > 0.8 then reliability questionnaire This is good and got done deployment questionnaire actually. Validity test results can be seen in Figure 2.

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	33	100.0
	Excluded[a]	0	.0
	Total	33	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.843	18

Figure 2. The Validity Test Results of Customer-Level Interests

3.3 Importance-Performance Analysis

At this stage, the processing results of the completed questionnaire spread to 389 respondents. Importance performance analysis has several stages between count level item suitability and level total fit until the data is categorized using a Cartesian diagram.

Cartesian diagram used for mapping indicator or attribute quality services at IC Cookies. Cartesian diagram made using SPSS software, Cartesian diagram based on results data processing using importance-performance analysis (IPA) can see in Figure 3.
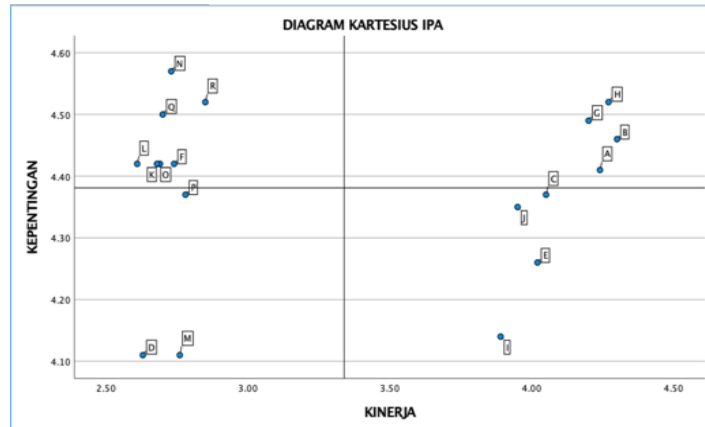
Figure 3. IPA Cartesian diagram

Based on the Cartesian diagram, in quadrant I, seven attributes have not been optimally implemented by the company and must be improved because they are important factors or expected by consumers. The attributes included in quadrant I include the following:
1. IC Cookies employees prioritize respondents when they serve.
2. IC cookies provide fast service.
3. IC Cookies accept criticism and suggestions from customers.
4. IC Cookies responded quickly to criticism and suggestions.
5. IC Cookies employees know the product details well.
6. Respondents repurchase IC Cookies products.
7. Employees appear trained and competent.

Based on these attributes, improvements need to be made to include the dimensions of empathy, responsiveness, and assurance.

3.4 Customer Satisfaction Index (CSI)

Processing of customer satisfaction index data consists of several stages that determine the mean importance score and mean satisfaction score then determine the weight factors, total weight, and the last determines the per cent satisfaction customer with the customer satisfaction index.

The customer satisfaction index is done by dividing the total weight by the last nominal scale multiplied by 100%. Following is the customer satisfaction index calculation :

$$CSI=333.92/5 \times 100\%=66.78\%$$

based on the calculation of the results, 66.78% of customers are satisfied with the performance company.

3.5 Gap Analysis

Gap analysis, or serval, aims to identify the gap between expected and perceived service. Gaps the can is known with count gap analysis score. Calculation results and gap analysis scores for each question item can be seen in Table 3.

Table 3. Calculation results gap analysis scores for each question item

Attribute	Performance	Hope	GAP
TN1	4,24	4,41	-0,17
TN2	4,30	4,46	-0,16
EP1	4,05	4,37	-0,32
EP2	2,63	4,11	-1,48
EP3	4,02	4,26	-0,24
EP4	2,74	4,42	-1,68
RL1	4,20	4,49	-0,29
RL2	4,27	4,52	-0,25

Table 3. Calculation results gap analysis scores for each question item (Continuation)

Attribute	Performance	Hope	GAP
RL3	3,89	4,14	-0,25
RL4	3,95	4,35	-0,40
RS1	2,69	4,42	-1,73
RS2	2,61	4,42	-1,80
RS3	2,76	4,11	-1,35
RS4	2,73	4,57	-1,84
AS1	2,68	4,42	-1,74
AS2	2,78	4,37	-1,59
AS3	2,70	4,50	-1,80
AS4	2,85	4,52	-1,68

The table shows that all attribute items have negative gaps, indicating that IC Cookies' customer perceptions of the services provided by IC Cookies are still not in line with customer expectations. This means that the quality of service of IC Cookies still needs to be improved.

4. Conclusion

Seven qualitative attributes were found to affect customer satisfaction. This attribute is in quadrant I of the Cartesian interest performance analysis diagram and requires improving service quality. Based on these attributes, the improvements that need to be made are in the dimensions of empathy, responsiveness, and assurance. Based on the criterion customer satisfaction index, IC Cookies customers are satisfied with the services provided but still need improvement to maximise the service. Based on the results of the gap analysis of the data, all attributes have a negative gap value, which means that there is a motive between the services provided by management and those expected by consumers. Of all the attributes that show negative gap values, improvements will only be made to the seven attributes with the largest gap values. The results of the IPA and Gap analysis show that the quality of IC Cookies' service can be improved by tightening training for new employees, maximizing the use of information technology to respond to criticism and suggestions, improving the implementation of standard operational procedures (SOP) so that employees work well, providing rewards and punishments to employees based on employee performance, providing attractive offers to consumers, and conducting regular employee evaluations.

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