Industrial & System Engineering Journals
Vol. 5, No. 1, December 2026, pp. 473–484
e-ISSN: 2985-346X

Implementation of SERVQUAL and QFD to Measure Service Quality at Cafe Pastor Ngagel Surabaya

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ABSTRACT

This study addresses delayed order preparation and frequent order errors at Cafe Pastor Ngagel Surabaya. Using responses from 102 customers, service quality was assessed across 25 attributes through the SERVQUAL method. Thirteen attributes showed positive gaps, including staff friendliness, while two had zero gaps, indicating aspects of service that met customer expectations and should be maintained. Ten attributes showed negative gaps, with the largest relating to inadequate modern equipment (−0.559), interior design (−0.451), and inconsistent coffee taste (−0.324). These negatively rated attributes were incorporated into a House of Quality (HoQ) matrix using Quality Function Deployment (QFD). The three highest-ranked improvements were standardizing coffee preparation time (priority score: 271.86), calibrating coffee flavor (212.62), and modernizing equipment (198.23). These priorities can help café management allocate resources more effectively to improve service speed and product consistency.

Keywords: Service Quality, SERVQUAL, QFD, HoQ, Cafe

1. Introduction

The culinary industry in Indonesia continues to develop as demand for food and beverage services rises and lifestyles evolve. Cafés have become places not only for eating and drinking but also for social and productive activities. This development has intensified competition in the food and beverage sector, requiring businesses to offer quality products and services to meet customer needs (Jerry & Lupiana, 2023). In service industries, service quality is particularly important because customers evaluate not only product quality but also the speed, accuracy, comfort, and facilities associated with service delivery Nadhila Ilmi (2021). A mismatch between customer expectations and the service received may lead to dissatisfaction and reduced customer trust (Monika & Telagawathi, 2024).

Established in 2019, Cafe Pastor Ngagel Surabaya offers food and beverages alongside facilities intended to enhance visitor comfort. However, internal data from January to May 2026 indicate recurring delays in serving orders, order errors, and fluctuations in monthly customer visits, highlighting the need to assess service quality. SERVQUAL was employed to measure gaps between customer perceptions and expectations across five service-quality dimensions, while QFD was applied to translate customer needs into improvement priorities using the House of Quality (HoQ). Combining the two methods was expected to produce priorities suited to the café's operational conditions and support improvements in service quality and customer satisfaction.

Table 1. Data on Service Delays and Order Errors

No.	Month	Service delays	Order errors
1	January	19	34
2	February	11	28
3	March	15	32
4	April	9	24
5	May	17	29

Source: Data collection, 2026.

The figures indicate recurring disruptions in the café's daily operations. In January, staff made the highest number of order errors, reaching 34 incidents. Such frequent delays and errors can undermine customer trust, as customers may perceive incorrectly fulfilled or late orders as a disadvantage. Customer visits also fluctuated over January–May 2026, suggesting an unstable pattern of customer arrivals.

Table 2. Customer Visits, January–May 2026

Month	Week 1	Week 2	Week 3	Week 4	Monthly total
January	195	203	165	245	808
February	158	198	167	173	696
March	418	329	223	190	1160
April	201	287	323	405	1216
May	347	293	207	197	1044

Source: Data collection, 2026.

Earlier studies have used SERVQUAL and QFD to analyze service quality and identify attributes requiring improvement. Alamsyah et al. (2024) showed that integrating SERVQUAL and QFD can reveal service gaps and determine improvement priorities based on customer needs. However, previous studies have generally focused on translating customers' perceptions at an aggregate level. The present study builds on that approach by using specific historical operational data service delays and order errors recorded during January–May 2026 as the basis for validating Voice of Customer (VoC) parameters in the House of Quality matrix.

The study's methodological contribution lies in determining the urgency of improvement needs by combining the Improvement Ratio (IR) and Normalized Raw Weight (NRW), specifically for resolving daily operational problems. Another distinguishing finding concerns technical synergies identified in the roof matrix, where attributes with the greatest service gaps provide a basis for evaluation and improvement. Rather than merely measuring satisfaction, this approach quantitatively identifies interconnected technical improvement priorities that can address underlying operational problems.

The central research problem is the discrepancy between customer expectations and the service delivered by Cafe Pastor Ngagel Surabaya, particularly in service accuracy and speed. This study uses SERVQUAL to measure perception–expectation gaps and QFD to translate the resulting findings into improvement priorities. Specifically, it aims to assess service quality, identify the largest gaps, and formulate customer-driven service improvements. The intended outcome is a more targeted set of recommendations for strengthening service quality and customer satisfaction at Cafe Pastor Ngagel Surabaya.

2. Methods

This study adopted a descriptive quantitative approach. The population was estimated at 1,170 visitors per month based on average monthly customer visits. The minimum sample size was calculated using Slovin's formula with a 10% margin of error. Respondents were selected through purposive sampling and were required to have purchased an item and personally experienced the service at Cafe Pastor Ngagel Surabaya. Data were collected through questionnaires distributed to customers and interviews with internal café personnel. SERVQUAL was then used to calculate the gap for each service attribute, and QFD was applied to determine improvement priorities.

a. SERVQUAL Method

SERVQUAL measures service quality using attributes within each service-quality dimension. The service gap is calculated as the difference between customers' perceptions

 e-ISSN: 2985-346X

of the service received and their expectations of the service they should receive. Hassya & Azwar (2024) describe the following calculation:

GAP = PERCEPTION − EXPECTATION

b. Quality Function Deployment (QFD)

Quality Function Deployment (QFD) translates customer requirements and preferences into technical characteristics that an organization can implement. Its emphasis on the voice of the customer enables a business to identify what customers want and how their needs can be met appropriately. According to Lutanto et al. (2025), QFD links customer needs to technical specifications through the House of Quality (HoQ) matrix.

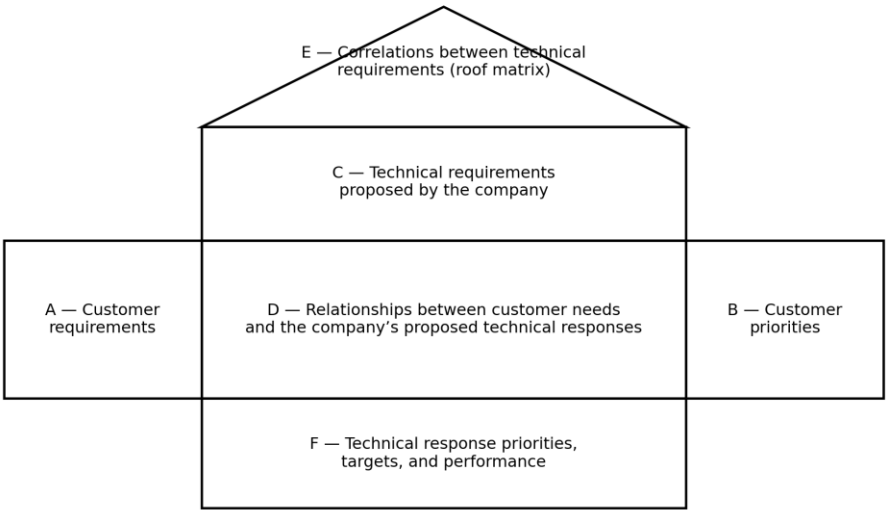


Figure 1. House of Quality Model
Source: Yoga Pratama et al., (2024); labels translated from the published figure.

The House of Quality calculations use the following formulas:

1. Importance to Customer (ItC)

$$\mathbf{ItC = \Sigma X / n} \quad \textbf{(2.1)}$$

ΣX: total importance score; n: number of respondents.

2. Customer Satisfaction Performance (CuSP)

$$\mathbf{CuSP = \Sigma Y / n} \quad \textbf{(2.2)}$$

ΣY: total customer-perception score; n: number of respondents.

3. Improvement Ratio (IR)

$$\mathbf{IR = Goal / CuSP} \quad \textbf{(2.3)}$$

Goal: target performance; CuSP: Customer Satisfaction Performance.

4. Raw Weight (RW)

$$\mathbf{RW = ItC \times IR \times SP} \quad \textbf{(2.4)}$$

ItC: Importance to Customer; IR: Improvement Ratio; SP: Sales Point.

5. Normalized Raw Weight (NRW)

$$\mathbf{NRW = RW / \Sigma RW} \quad \textbf{(2.5)}$$

RW: Raw Weight; ΣRW: total Raw Weight.

c. Sample Size

The minimum sample size was calculated using Slovin's formula. A margin of error (e) of 10% (0.1) was selected because it was regarded as suitable for a customer-satisfaction study while maintaining a feasible sample size. The computation was as follows:

$$n = 1{,}170 / [1 + 1{,}170(0.1)^2] = 1{,}170 / 12.7 = 92.13$$

The calculation produced a minimum sample size of approximately 92 respondents. In practice, the researchers obtained responses from 102 individuals who met the purposive-sampling criteria. Since the actual sample exceeded the calculated minimum, all 102 responses were used in the subsequent analyses.

3. Results and Discussion

3.1 Instrument Testing

A research questionnaire should demonstrate validity and reliability. Accordingly, the instrument was tested before further data analysis to establish whether the collected responses measured the research variables adequately and consistently.

3.1.1 Validity Test

The study used 102 respondents (N = 102). An item was considered valid when its calculated correlation coefficient (r) exceeded the reference r value (approximately 0.19) and its two-tailed significance value was below 0.05.

Table 3. Validity Test Results (N = 102)

Item	Calculated r	Critical r	Sig. (two-tailed)	Status
PXA1	0.529	0.1946	0.00	Valid
PXA2	0.328	0.1946	0.00	Valid
PXA3	0.642	0.1946	0.00	Valid
PXA4	0.203	0.1946	0.04	Valid
PXA5	0.45	0.1946	0.00	Valid
HXA1	0.547	0.1946	0.00	Valid
HXA2	0.546	0.1946	0.00	Valid
HXA3	0.544	0.1946	0.00	Valid
HXA4	0.499	0.1946	0.00	Valid
HXA5	0.385	0.1946	0.00	Valid
PXB1	0.565	0.1946	0.00	Valid
PXB2	0.634	0.1946	0.00	Valid
PXB3	0.376	0.1946	0.00	Valid
PXB4	0.438	0.1946	0.00	Valid
PXB5	0.562	0.1946	0.00	Valid
HXB1	0.698	0.1946	0.00	Valid
HXB2	0.571	0.1946	0.00	Valid
HXB3	0.579	0.1946	0.00	Valid
HXB4	0.679	0.1946	0.00	Valid
HXB5	0.601	0.1946	0.00	Valid
PXC1	0.594	0.1946	0.00	Valid
PXC2	0.587	0.1946	0.00	Valid
PXC3	0.675	0.1946	0.00	Valid
PXC4	0.632	0.1946	0.00	Valid
PXC5	0.473	0.1946	0.00	Valid
HXC1	0.613	0.1946	0.00	Valid
HXC2	0.668	0.1946	0.00	Valid
HXC3	0.658	0.1946	0.00	Valid
HXC4	0.646	0.1946	0.00	Valid
HXC5	0.707	0.1946	0.00	Valid

Item	Calculated r	Critical r	Sig. (two-tailed)	Status
PXD1	0.574	0.1946	0.00	Valid
PXD2	0.555	0.1946	0.00	Valid
PXD3	0.462	0.1946	0.00	Valid
PXD4	0.307	0.1946	0.002	Valid
PXD5	0.526	0.1946	0.00	Valid
HXD1	0.608	0.1946	0.00	Valid
HXD2	0.63	0.1946	0.00	Valid
HXD3	0.631	0.1946	0.00	Valid
HXD4	0.56	0.1946	0.00	Valid
HXD5	0.607	0.1946	0.00	Valid
PXE1	0.651	0.1946	0.00	Valid
PXE2	0.515	0.1946	0.00	Valid
PXE3	0.643	0.1946	0.00	Valid
PXE4	0.622	0.1946	0.00	Valid
PXE5	0.558	0.1946	0.00	Valid
HXE1	0.714	0.1946	0.00	Valid
HXE2	0.619	0.1946	0.00	Valid
HXE3	0.635	0.1946	0.00	Valid
HXE4	0.649	0.1946	0.00	Valid
HXE5	0.632	0.1946	0.00	Valid

Source: Data processing, 2026. Numerical precision is retained as reported in the source.

3.1.2 Reliability Test

Reliability testing evaluates the consistency of measurement results. In this study, an instrument was considered reliable if Cronbach's alpha exceeded the stated minimum threshold of 0.60.

Table 4. Reliability Test Results

Perception: Cronbach's alpha	No. of items	Expectation: Cronbach's alpha	No. of items
0.906	25	0.938	25

Source: Data processing, 2026.

The 25 perception items produced a Cronbach's alpha coefficient of 0.906, while the 25 expectation items produced a coefficient of 0.938.

3.2 Calculation of Perceptions and Expectations

Questionnaire data analysis indicated that several aspects of the café's service quality remained below customer expectations. The service-quality gap was calculated as GAP = PERCEPTION − EXPECTATION.

Table 5. SERVQUAL Results for the 25 Service Attributes

Dimension	Code	Attribute	Perception	Expectation	Gap
Tangibles	XA1	Interior design	4.11	4.56	−0.45
Tangibles	XA2	Availability of café facilities, including Wi-Fi and live music	4.36	4.49	−0.13
Tangibles	XA3	Availability of modern café equipment	4.09	4.65	−0.56

Dimension	Code	Attribute	Perception	Expectation	Gap
Tangibles	XA4	Availability of food and beverages listed on the menu	4.49	4.49	0.00
Tangibles	XA5	Strategic café location	4.28	4.44	−0.16
Reliability	XB1	Service meets customer preferences	4.45	4.47	−0.02
Reliability	XB2	Consistency of the coffee flavor served	4.22	4.54	−0.32
Reliability	XB3	Staff receive customer complaints	4.55	4.52	0.03
Reliability	XB4	Beverage prices correspond to quality	4.47	4.44	0.03
Reliability	XB5	Staff deliver orders on time	4.36	4.45	−0.09
Responsiveness	XC1	Staff proactively offer products customers may want	4.48	4.47	0.01
Responsiveness	XC2	Staff resolve customer complaints appropriately	4.49	4.48	0.01
Responsiveness	XC3	Speed of service delivery	4.40	4.56	−0.16
Responsiveness	XC4	Prompt service when customers need assistance	4.52	4.50	0.02
Responsiveness	XC5	Staff inform customers when their orders will be ready	4.40	4.40	0.00
Assurance	XD1	Quality of food and beverages offered	4.53	4.49	0.04
Assurance	XD2	Honest information about menu-item availability	4.58	4.57	0.01
Assurance	XD3	Customers feel safe when making complaints	4.66	4.63	0.03
Assurance	XD4	Food and beverage prices correspond to quality	4.43	4.42	0.01
Assurance	XD5	Ease of payment	4.43	4.44	−0.01
Empathy	XE1	Customers receive satisfactory service	4.54	4.55	−0.01
Empathy	XE2	The café understands customer needs	4.49	4.46	0.03
Empathy	XE3	Staff smile, greet, and treat customers courteously	4.65	4.62	0.03
Empathy	XE4	Staff prioritize customer interests	4.57	4.52	0.05
Empathy	XE5	Staff assist customers who are uncertain how to order	4.63	4.60	0.03

Source: Data processing, 2026. Values are reproduced as displayed in the published table.

The results identified ten service attributes with negative gaps, indicating that actual service performance fell below customer expectations. These negative values signal service aspects requiring attention. In contrast, zero or positive gaps suggest that performance met or exceeded expectations. Although such attributes are not the immediate focus of operational improvements, they should be monitored periodically to maintain existing service standards.

3.2.1 Negative Gap Values

Negative service gaps indicate that customers' experiences fell below their expectations. The ten negative-gap attributes were therefore selected for technical improvement analysis.

Table 6. SERVQUAL Attributes with Negative Gap Values

Code	Attribute	Perception	Expectation	Gap
XA3	Availability of modern café equipment	4.09	4.6	−0.56
XA1	Interior design	4.11	4.6	−0.45
XB2	Consistency of coffee flavor	4.22	4.5	−0.32
XA5	Strategic café location	4.28	4.4	−0.16
XC3	Service speed	4.40	4.6	−0.16
XA2	Availability of Wi-Fi, live music, and other facilities	4.36	4.5	−0.13
XB5	On-time order delivery	4.36	4.5	−0.09
XB1	Service meets customer preferences	4.45	4.5	−0.02
XD5	Ease of payment	4.43	4.4	−0.01
XE1	Satisfactory overall service	4.54	4.5	−0.01

Source: Data processing, 2026. Displayed rounded values follow the original table.

The negative-gap indicators require technical improvements and serve as inputs to the QFD analysis. By incorporating these findings into Quality Function Deployment, the service gaps become a basis for determining priorities for quality improvement.

3.4 Implementation of QFD

The analysis proceeded by incorporating negative SERVQUAL attributes into Quality Function Deployment (QFD). The attributes were treated as the Voice of Customer (VoC) and translated into technical characteristics that café management could implement.

3.4.1 Relationships Between WHATs and HOWs

The House of Quality (HoQ) matrix places WHATs customer requirements identified from negative SERVQUAL gaps on the left, while HOWs operational technical responses—are arranged across the top. To ensure that the QFD results could be understood and replicated, the HOWs were formulated through interviews and focused discussions with the café manager and barista, who were familiar with the operational workflow. The ten negatively rated VoC attributes were presented to them, the associated problems were evaluated, and feasible technical responses were proposed. The manager and barista then assessed how strongly each response addressed each customer requirement. Relationships were assigned values of 9 for strong (●), 3 for moderate (○), and 1 for weak (△) connections.

Figure 2. Relationships Between Customer Requirements (WHATs) and Technical Responses (HOWs)

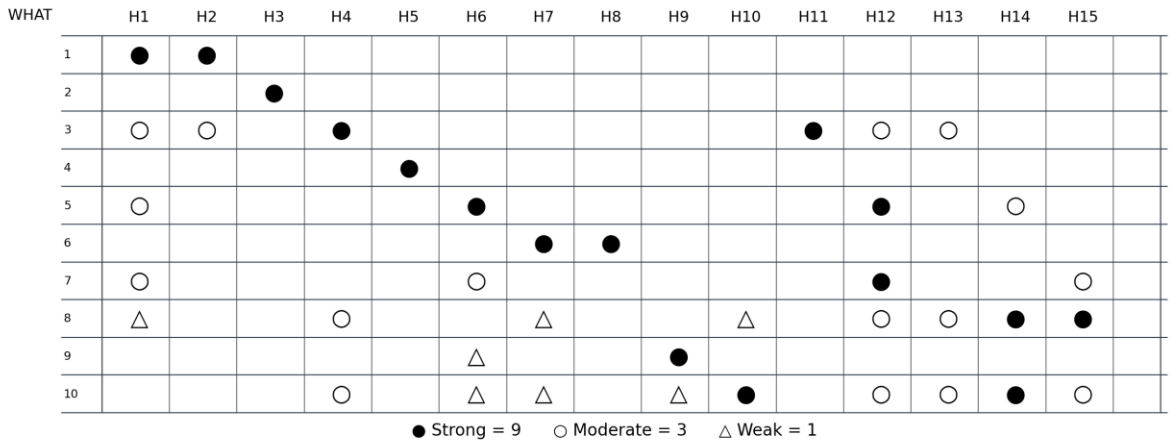


Figure 2 Key: Customer Requirements (WHATs)

W1. Modern coffee-making equipment
W2. Interior design
W3. Consistency of coffee flavor
W4. Strategic café location
W5. Service speed
W6. Availability of Wi-Fi and live music
W7. On-time order delivery
W8. Service aligned with customer wishes
W9. Ease of payment
W10. Overall satisfactory service

Figure 2 Key: Technical Responses (HOWs)

H1. Modernize coffee machines and bar equipment
H2. Conduct routine coffee-machine and grinder maintenance
H3. Rearrange the interior design
H4. Standardize coffee flavor calibration
H5. Promote the café via social media
H6. Redesign bar workflow to optimize queues
H7. Provide Wi-Fi access tokens during business hours
H8. Collaborate with communities on live music
H9. Maintain internet access for digital payments and cash change
H10. Evaluate staff at each shift change
H11. Apply FIFO inventory management
H12. Standardize preparation time for coffee beverages
H13. Check orders before serving
H14. Standardize prompt staff responses to customers requiring assistance
H15. Reconfirm orders to prevent errors

Source: Data processing, 2026. Relationship marks are transcribed from the published figure.

3.4.2 Customer Planning Matrix

The Customer Planning Room, located on the right side of the House of Quality matrix, provides quantitative information for systematically ranking service-improvement priorities.

 e-ISSN: 2985-346X

Table 7. Customer Planning Calculations

ItC	CuSP	Goal	IR	SP	RW	NRW (%)
4.65	4.09	4.65	1.137	1.2	6.34	10.30
4.56	4.10	4.56	1.110	1.5	7.59	12.33
4.54	4.22	4.54	1.077	1.5	7.33	11.91
4.44	4.28	4.44	1.037	1.2	5.52	8.97
4.56	4.40	4.56	1.036	1.5	7.08	11.50
4.49	4.36	4.49	1.029	1.5	6.93	11.26
4.45	4.36	4.45	1.020	1.2	5.45	8.85
4.47	4.45	4.47	1.004	1.2	5.39	8.75
4.44	4.43	4.44	1.002	1	4.45	7.23
4.55	4.54	4.55	1.002	1.2	5.47	8.89
Total					61.56	100

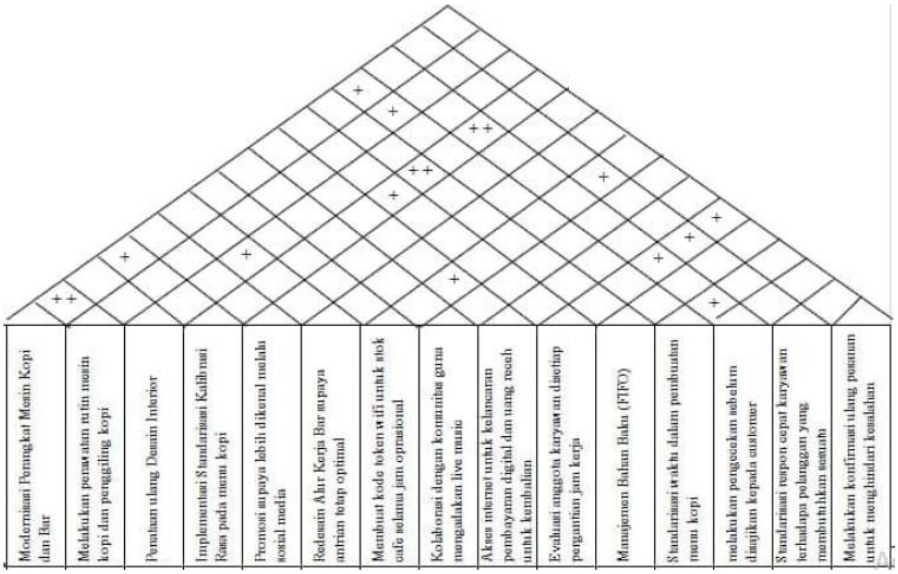
Source: Data processing, 2026.

The Customer Planning Room results show that improvement priorities at Cafe Pastor Ngagel Surabaya are determined by the gap between customer importance and actual performance. The first attribute had an Importance to Customer score of 4.65, a Customer Satisfaction Performance value of 4.09, and the highest Improvement Ratio (1.137), indicating a substantial need for improvement. The Normalized Raw Weight (NRW) values ranged from 7.23% to 12.33%, with 12.33% representing the greatest relative priority. These findings are consistent with Maulana & Andesta (2025), who used SERVQUAL and QFD to translate measured customer needs into service-improvement priorities. The present study differs in its emphasis on urgency at Cafe Pastor Ngagel Surabaya, using the combination of IR and NRW to identify which service attributes require the greatest improvement.

3.4.3 Roof Correlation Matrix

Correlations between technical responses are illustrated in the roof matrix, the triangular section at the top of the HoQ. This analysis indicates whether proposed operational improvements reinforce one another or create functional trade-offs.

Table 8. Roof Correlation Matrix (source diagram)



Source: Data processing, 2026. The published graphic is retained for verification; technical-response names are translated in the Figure 2 key.

The roof matrix indicates a strong positive correlation (++) between modernizing coffee machines and bar equipment and performing routine maintenance of coffee machines and grinders. A positive correlation (+) was also identified between standardizing coffee preparation times and standardizing rapid staff responses to customers.

3.4.4 Determining Target Priorities and Rankings

The final QFD calculation ranks technical responses using the lower portion of the House of Quality matrix. Each proposed response receives a priority score derived from the Normalized Raw Weight of customer needs multiplied by the corresponding strength of relationships in the matrix. The scores determine the order in which management should implement proposed improvements.

Figure 3. House of Quality Matrix (published source diagram)

	How's / What's	Modernisasi Perangkat Mesin Kopi dan Bar	Melakukan perawatan rutin mesin kopi dan penggilingg kopi	Penataan ulang Desain Interior	Implementasi Standarisasi Kalibrasi Rasa pada menu kopi	Promosi supaya lebih dikenal melaui social media	Reflesisi Air Kopi Bar supaya antrian tetap optimal	Membuat kode tokenfiar untuk stok saat selain jam jam operasional	Kolaborasi dengan komunitas guna menegahkan live music	Akses internet stabil untuk kasuran pembyaran digital dan tunggahan konten	Evaluasi anggota karyawan disetiap pergantian jam kerja	Menajemen Bahan Baku (FIFO)	Optimalisasi waktu dalaan pembuatan menu kopi	Pelatihan penggunaan peralatan secara berkalaa untuk seleruh staf	Standarisasi respon utpon karyawan terhadap pelanggan yang membuhakan barhaan	Melakukan konfirmasi ulang pesanan untuk menghindari kesalahan	ItC	CuSP	Goal	IR	SP	RW	NRW
4,65	Kedai kopi memiliki peralatan yang modern	●	●															4,65	4,09	4,65	1,137	1,2	6,34	10,30
4,56	Desain interior			●														4,56	4,11	4,56	1,110	1,5	7,59	12,33
4,56	Kesesuaian dan konsistensi cita rasa kopi yang disediakan	○	○		●							●	○	○				4,54	4,28	4,24	1,077	1,5	7,33	11,31
4,44	Lokasi kafe strategara					●												4,44	4,26	4,44	1,037	1,2	7,08	8,97
4,58	Kasacatan sah venan yang diisvari	○					●						●		○			4,56	4,46	4,48	1,036	1,5	7,08	11,50
4,49	Kelengsagan fasilitas operasional kafe seperti wifi dan live musik							●	●									4,49	4,36	4,49	1,029	1,5	6,93	11,56
4,45	Karyawan si an berikan pesaran tapu	○					○				○		●				○	4,45	4,36	4,45	1,020	1,2	5,45	8,85
4,47	Pelayanan yang diberikan sesuai dengan bekassan koneyman	△	△		●			△			○	○	○		●		●	4,47	4,45	4,47	1,004	1,2	5,39	8,75
4,44	Karrudahan anlam pembayaran						△			●								4,44	4,43	4,44	1,002	1	4,45	7,23
4,55	Setap pelanggan mendayatakan pelayaran yang mentupakan				○		△	△		△	●	○	○	○	●	○		4,55	4,54	4,55	1,002	1,2	5,47	8,89
		198,2318	137,1612	110,6512	212,6299	80,77225	146,2131	118,9928	101,3521	73,95569	1322,801	150,1095	271,8638	88,65069	193,2775	131,9994							Total	
		3	7	11	2	14	6	10	12	15	8	5	1	13	4	9							61,56	100

Source: Data processing, 2026. The original numerical matrix is retained; English technical-response names appear in the Figure 2 key.

The ranking of technical responses identified standardizing coffee preparation time as the main priority, with a score of 271.86. It was followed by coffee flavor calibration (212.62) and modernization of coffee machines and bar equipment (198.23). Standardizing preparation time scored highest because this response had strong relationships with the most critical negative-gap customer attributes. Implementation at Cafe Pastor Ngagel Surabaya could include a standardized operating procedure (SOP) defining maximum preparation times for beverage categories and simulations of efficient barista movements in the bar area.

These results provide a strategic interpretation of the research problem. Improvements focused on service speed and product flavor consistency are intended to address operational bottlenecks, particularly delayed orders and frequent order errors recorded from January to May 2026. Implementing these technical priorities would enable management to address both perceived service-quality gaps and everyday service operations at Cafe Pastor Ngagel Surabaya.

 e-ISSN: 2985-346X

The findings are consistent with Putri et al. (2025), who showed that combining SERVQUAL and QFD can translate customer requirements into technical priorities. However, the present study places greater emphasis on specific daily operational problems, particularly service time and product consistency. Its findings also align with Saputra (2024), who applied QFD to improve service at Albania Coffee & Resto, while this study identifies priorities grounded in the operational conditions of Cafe Pastor Ngagel Surabaya. Furthermore, the study supports the findings of Putri & Pujianto, (2021) regarding the application of SERVQUAL and QFD for service-quality improvement, as identified customer needs can be translated into more measurable technical actions.

4. Conclusion

Based on the SERVQUAL and Quality Function Deployment (QFD) analysis of service quality at Cafe Pastor Ngagel Surabaya, three conclusions were drawn:

1. Service quality did not fully meet customer expectations. Of the 25 attributes assessed, ten had negative service gaps and were selected for improvement; thirteen showed positive gaps, and two had zero gaps that should be maintained.
2. The largest negative gaps concerned modern equipment (XA3: −0.559), interior design (XA1: −0.451), and inconsistency in coffee flavor (XB2: −0.324). These results indicate the importance of upgrading facilities, the café's physical environment, and product consistency to meet customer expectations.
3. QFD, through the House of Quality (HoQ), translated negative-gap attributes into the Voice of Customer and technical responses for improvement. Standardizing coffee preparation time was the top-ranked priority (271.86), followed by standardizing coffee flavor calibration (212.62) and modernizing coffee machines and bar equipment (198.23). Service-quality improvement should therefore emphasize faster service, more consistent flavors, and stronger operational facilities.

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