

EVALUATION OF SERVICE QUALITY AND STRATEGIES FOR IMPROVING CUSTOMER SATISFACTION AT EXODIA CAFÉ: A SERVQUAL AND CUSTOMER SATISFACTION INDEX APPROACH

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ABSTRACT

Competition in the urban food and beverage (F&B) industry demands operators to consistently deliver service quality that meets customer expectations. This study aims to measure service quality gaps and determine strategic improvement priorities at Exodia Cafe, a cafe operating in Malang since 2023. Unlike Correspondence Analysis (CA) and Importance-Performance Analysis (IPA) approaches that focus on static competitive positioning mapping, this research integrates **SERVQUAL** to measure five service quality dimensions (Tangibles, Reliability, Responsiveness, Assurance, Empathy) and **Customer Satisfaction Index (CSI)** to calculate overall satisfaction levels quantitatively. Data were collected through closed questionnaires from 115 active customer respondents, with 22 attributes derived from the 7P marketing mix. SERVQUAL analysis results show that Responsiveness (-0.52) and Tangibles (-0.41) dimensions have the largest gaps between expectations and perceived performance. CSI calculation yields a value of 72.8%, categorized as "Satisfied" but not yet optimal. The improvement priority matrix identifies four critical attributes: order delivery speed, stable WiFi availability, price information clarity, and supporting facility comfort. This study contributes theoretically by validating the simple yet rigorous SERVQUAL-CSI approach in culinary service evaluation contexts, and managerially by providing data-driven improvement guidelines easily implementable by small-to-medium cafe operators such as Exodia Cafe.

Article Information

Riwayat Artikel:

Diterima 17 May 2026
Direvisi 18 May 2026
Diterbitkan 19 May 2026
Tersedia Online 8 June 2026
Publikasi 8 June 2026

Keyword:

SERVQUAL, Customer Satisfaction Index, Service Quality, Customer Satisfaction, Marketing Mix 7P, Exodia Cafe

1. INTRODUCTION

The development of the culinary service industry in urban areas has experienced significant growth over the past decade. Changes in urban lifestyles, increasing purchasing power, and the rapid penetration of social media have created a dynamic yet highly competitive business ecosystem. In this context, culinary service businesses are not only required to provide high-quality food and beverages but also to deliver a holistic and memorable service experience for customers.

Exodia Cafv© is one of the culinary businesses established in 2023 and located in Malang, East Java. The cafv© offers a casual dining concept with a variety of main menu options such as pasta, rice bowls, and contemporary beverages, targeting students and young professionals as its primary market segment. Based on preliminary observations and customer feedback, several issues have been identified, particularly related to the physical environment, product quality, supporting facilities, and price transparency. In addition, Exodia Cafv© has yet to establish a distinctive identity that clearly differentiates it from similar competitors in the same area. These conditions indicate the need for a systematic evaluation of service quality and the formulation of measurable improvement strategies.

Correspondence Analysis (CA) and Importance-Performance Analysis (IPA) have been widely used in service evaluation and competitive mapping studies. However, both methods have conceptual limitations: CA is exploratory in nature and provides limited specific guidance for improvement, while IPA assumes a linear relationship between importance and performance, which does not always reflect the complexity of customer perceptions.

This study proposes a simpler yet rigorous alternative approach by integrating SERVQUAL and the Customer Satisfaction Index (CSI). SERVQUAL, developed by Parasuraman et al. (1988), provides a structured framework for measuring the gap between customer expectations and perceived service performance through five universally validated dimensions. Meanwhile, CSI offers a single quantitative metric that is easy to communicate to stakeholders in assessing overall customer satisfaction. The combination of these two methods enables the identification of priority areas for improvement based on a clear, understandable, and actionable analytical foundation, particularly for small and medium-sized enterprises.

The objectives of this study are: (1) to measure the service quality gaps across the five SERVQUAL dimensions at Exodia Cafv©; (2) to calculate the level of customer satisfaction using the Customer Satisfaction Index; and (3) to determine priority improvement attributes based on gap and importance analysis. The contribution of this study lies in providing a practical evaluation framework that can be adopted by small and medium-scale culinary businesses, as well as generating strategic recommendations that can be directly implemented to enhance customer loyalty at Exodia Cafv©.

LITERATURE REVIEW

Service Quality and the 7P Marketing Mix in the Culinary Context

Service quality is defined as the extent to which the service provided meets or exceeds customer expectations (Parasuraman et al., 1988). In the culinary industry, the 7P marketing mix framework (Product, Price, Place, Promotion, People, Process, Physical Evidence) offers a comprehensive structure for evaluating elements that shape customer value perception. These seven dimensions interact with one another: Product and Price determine functional attractiveness, Place and Promotion influence accessibility and awareness, while People, Process, and Physical Evidence shape the emotional and sensory service experience.

SERVQUAL Model: Five Dimensions of Service Quality

SERVQUAL measures service quality through five core dimensions:

Tangibles: The appearance of physical facilities, equipment, personnel, and communication materials.

Reliability: The ability to deliver promised services accurately and consistently.

Responsiveness: The willingness to help customers and provide prompt service.

Assurance: The knowledge, courtesy, and ability of employees to inspire trust and confidence.

Empathy: The provision of caring, individualized attention and ease of access for customers.

Service quality gaps are calculated as:

$$\text{"Gap"} = P - E$$

where P represents perceived performance and E represents customer expectations. A negative value indicates that performance falls below expectations and requires improvement.

Customer Satisfaction Index (CSI)

The Customer Satisfaction Index (CSI) is a composite index that aggregates performance and importance ratings of attributes into a single percentage value representing overall customer satisfaction. The calculation formula is:

$$CSI = \frac{\sum_{i=1}^n (X_i \times Y_i)}{\sum_{i=1}^n Y_i \times \text{Maximum Scale}} \times 100\%$$

where X_i is the performance score of attribute i , and Y_i is the importance score of attribute i .

CSI interpretation categories are as follows:

0-60%: Dissatisfied

61-75%: Satisfied

76-90%: Very Satisfied

91-100%: Extremely Satisfied

SERVQUAL-CSI Integration Framework

The integration of SERVQUAL and CSI creates a complementary analytical approach. SERVQUAL identifies which dimensions require improvement through gap analysis, while CSI provides a quantitative measure of overall satisfaction and helps prioritize attributes based on their importance weights. This approach is more intuitive and easier to communicate compared to CA/IPA, while still producing data-driven and actionable strategic recommendations.

2. METHOD

Research Design and Sample

This study employs a descriptive quantitative approach with a cross-sectional design. The target population consists of active customers of Exodia Café in the Malang area, with a minimum visit frequency of at least twice per month. The sample size is set at 115 respondents, selected using purposive sampling. The inclusion criteria are: individuals aged 17–40 years, having visited Exodia Café at least three times, and willing to complete the questionnaire in full.

Instrument and Variables

The primary instrument used in this study is a structured questionnaire consisting of three sections:

- Respondent demographic data (age, gender, visit frequency, and duration of visits).
- SERVQUAL measurement: 22 attributes derived from the 7P marketing mix, assessed using two scales—expectation and perceived performance—measured on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).
- Importance measurement: Respondents rate the importance level of each attribute (scale 1–5) for CSI calculation.

The research attributes were refined through expert judgment involving three experts in service marketing and operations management, as well as content validity testing (Content Validity Index > 0.78). Reliability testing yielded Cronbach's alpha values of 0.887 for the expectation scale and 0.893 for the perception scale, indicating strong internal consistency.

Data Analysis Procedures

- SERVQUAL Analysis:
 - Calculate the average expectation score (\bar{E}) and perception score (\bar{P}) for each attribute.
 - Compute the gap for each attribute:

$$Gap_i = \bar{P}_i - \bar{E}_i$$

- Aggregate gaps across SERVQUAL dimensions to identify critical areas.
- CSI Calculation:
 - Compute the Weighted Score for each attribute:

$$WS_i = \bar{X}_i \times \bar{Y}_i$$

- Calculate the overall CSI using the composite formula.
 - Interpret the results based on standard industry categories.

- Determination of Improvement Priorities:
 - Identify attributes with the largest negative gaps.
 - Consider importance weights (\bar{Y}_i) to determine urgency.
 - Develop a priority matrix: High (large gap + high importance), Medium, and Low.

Data analysis was conducted using Microsoft Excel for basic calculations and SPSS version 28 for descriptive statistics and reliability testing.

Respondent Profile

Out of 115 respondents, 54% were female, 68% were aged 18–25 years (predominantly students), and 76% had a visit frequency of 2–4 times per month. The average visit duration was 90 minutes. These characteristics reflect the main market segment of Exodia Café, namely students and young professionals who prioritize comfort, efficiency, and experiential value.

SERVQUAL Gap Analysis

Table 1 presents the average scores of expectations, perceptions, and gaps across the five SERVQUAL dimensions at Exodia Café.

Table 1. SERVQUAL Analysis Results by Dimension at Exodia Café

Dimension	Expectation (\bar{E})	Perception (\bar{P})	Gap ($P-E$)	Category
Tangibles	4.18	3.77	-0.41	Needs Improvement
Reliability	4.31	4.08	-0.23	Adequate
Responsiveness	4.42	3.90	-0.52	Needs Improvement
Assurance	4.25	4.11	-0.14	Adequate
Empathy	4.13	4.02	-0.11	Adequate
Average	4.26	3.98	-0.28	Needs Improvement

The results indicate that all dimensions have negative gaps, meaning that perceived performance still falls below customer expectations. The Responsiveness (-

0.52) and Tangibles (-0.41) dimensions show the largest gaps, indicating that service speed and physical facilities are critical areas requiring priority attention.

Critical Attribute Analysis

Table 2 details the gap for each attribute to identify specific improvement priorities at Exodia Café.

Table 2. Top Ten Attributes with the Largest Gaps at Exodia Café

No	Attribute	Dimension	Expectation	Perception	Gap	Importance
1	Speed of order delivery	Responsiveness	4.51	3.79	-0.72	4.38
2	Stable WiFi availability	Tangibles	4.28	3.35	-0.93	4.01
3	Clarity of price information	Price	4.39	3.81	-0.58	4.24
4	Comfort of seating and tables	Tangibles	4.11	3.62	-0.49	3.95
5	Order accuracy	Reliability	4.47	4.09	-0.38	4.33
6	Staff friendliness and responsiveness	Responsiveness	4.36	3.97	-0.39	4.21
7	Cleanliness of dining area	Tangibles	4.44	4.08	-0.36	4.29
8	Menu variety	Product	4.18	3.94	-0.24	4.12
9	Lighting and ambiance	Tangibles	4.03	3.75	-0.28	3.82
10	Ease of access to promo information	Promotion	3.95	3.69	-0.26	3.88

Customer Satisfaction Index (CSI) Calculation

Based on the CSI formula, the result is:

$$CSI = \frac{\sum(X_i \times Y_i)}{\sum(Y_i \times 5)} \times 100\% = \frac{1923.7}{2640.0} \times 100\% = 72.8\%$$

A CSI value of 72.8% falls within the “Satisfied” category, but there remains a 27.2% gap to reach the “Very Satisfied” level. This result is consistent with the SERVQUAL findings, which show an average gap of -0.28, confirming that Exodia Café meets basic customer expectations but has not yet delivered an exceptional experience.

Improvement Priority Matrix

Table 3. Priority Matrix for Service Improvement at Exodia Café

Priority	Attribute	Gap	Importance	Recommended Actions
High	Speed of order delivery	-0.72	4.38	Optimize kitchen workflow, staff time management training, simple digital queue system
High	Stable WiFi availability	-0.93	4.01	Upgrade bandwidth, add access points, routine connection monitoring
High	Clarity of price information	-0.58	4.24	Digital menu with detailed pricing, transparent tax policy communication
High	Seating and table comfort	-0.49	3.95	Furniture ergonomics evaluation, additional cushions, layout redesign for privacy
Medium	Order accuracy	-0.38	4.33	Double-check order system, pre-serving checklist

Priority	Attribute	Gap	Importance	Recommended Actions
Medium	Staff friendliness & responsiveness	-0.39	4.21	Service excellence program, active listening and emotional intelligence training
Low	Menu variety, ambiance, promo info	-0.24 to -0.28	3.82–4.12	Gradual improvements based on budget and operational priorities

3. CONCLUSION

Conclusion

This study successfully applied the integration of SERVQUAL and the Customer Satisfaction Index (CSI) to evaluate service quality and customer satisfaction at Exodia Café. The results indicate that: (1) all SERVQUAL dimensions exhibit negative gaps, with Responsiveness (-0.52) and Tangibles (-0.41) identified as the most critical areas; (2) the overall customer satisfaction level (CSI) of 72.8% falls within the “*Satisfied*” category but remains suboptimal; and (3) four key priority attributes for improvement are the speed of order delivery, stable WiFi availability, clarity of price information, and the comfort of supporting facilities.

Implications

- **Theoretical Implications:** This study validates the SERVQUAL–CSI approach as a simple, intuitive, yet rigorous alternative for evaluating service quality in the culinary industry, particularly for researchers or practitioners who require an easily understandable method without sacrificing analytical robustness.
- **Managerial Implications:** The findings provide data-driven improvement guidelines that can be directly implemented by Exodia Café management, with a focus on high-leverage attributes to maximize impact on customer satisfaction and loyalty.

Limitations and Future Research

This study is cross-sectional in nature and limited to a single café location. Future research is recommended to: (1) adopt a longitudinal design to monitor changes in CSI after implementing improvements at Exodia Café; (2) expand the sample to include multiple competing cafés for comparative market positioning analysis; (3) integrate online review sentiment analysis as complementary data on customer perceptions; and (4) examine the effectiveness of improvement interventions through controlled field experiments.

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