

Service Quality Dimensions and Impact on Purchasing Decisions: A Case Study at Cuan Farma Pharmacy, Jakarta

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ABSTRACT

In Indonesia's increasingly competitive pharmacy market, driven by the growth of online platforms and large pharmacy chains, service quality has become a decisive factor in attracting and retaining customers. This study examined how the five SERVQUAL dimensions influence purchasing decisions at Cuan Farma Pharmacy in East Jakarta. A cross-sectional quantitative design was applied with 287 respondents selected through systematic random sampling. Service quality was measured using a validated and reliable questionnaire (Cronbach's Alpha = 0.94) and analyzed with multiple linear regression. The results showed that tangibles, reliability, responsiveness, and empathy had significant positive effects on purchasing decisions ($p < 0.05$), with empathy emerging as the strongest driver. Assurance, however, was not significant ($p > 0.05$), suggesting that customers perceive it as a basic expectation rather than a differentiating factor. Together, service quality dimensions explained 47.2% of the variance in purchasing decisions, while the remainder was influenced by other factors such as price, location, and product availability. These findings underscore the importance of enhancing empathy and responsiveness, supported by reliability and tangible aspects, to strengthen customer loyalty and competitiveness in the pharmacy sector.



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Keywords

Service quality; SERVQUAL; Purchase decision; Community pharmacy; Consumer behavior; Customer satisfaction; Pharmaceutical services

Received:
09-06-2025

Accepted:
21-08-2025

Online:
30-08-2025

1. Introduction

Pharmacy competition in Indonesia has intensified with the rise of online platforms and the expansion of large chains. In this environment, service quality has become a key factor influencing consumers' purchasing decisions. The World Health Organization (WHO) notes that quality services enhance patient trust, improve treatment effectiveness, and support sustainable healthcare use [1]. One measure of service success is a customer's decision to return, referred to in the consumer context as a purchase decision.

The transformation of pharmaceutical services in Indonesia requires pharmacies to focus not only on providing medications but also on delivering high-quality interactions, patient education, and customer comfort. According to Ministry of Health Regulation No. 73 of 2016, pharmaceutical services must be professional, patient-centered, and meet quality standards [2]. Consumers are therefore becoming more

selective, seeking pharmacies that combine competitive prices with a satisfying service experience.

A purchase decision involves the psychological processes and actions customers take when deciding to purchase or repurchase a product or service [3]. In service sectors such as pharmacies, these decisions are strongly shaped by the quality of interactions and service experiences. The SERVQUAL model, which evaluates service quality across five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—is widely used for such assessments [4].

Previous studies confirm the importance of these dimensions. Research at K-24 Pharmacy in Palembang found all five dimensions had a positive and significant influence on purchase decisions [5]. In Australia, service quality perceptions were found to have a stronger effect on loyalty and purchase intention (coefficient 0.64) than price (0.20) [6].

Cuan Farma Pharmacy in East Jakarta operates in a highly competitive area, with at least 15 similar pharmacies within a one-kilometre radius. A preliminary survey of 25 respondents revealed that 21.6% were dissatisfied with the service. Customer complaints on Google Reviews mentioned price differences between offline and online purchases, and staff perceived as unfriendly—suggesting issues in assurance, responsiveness, and empathy.

This study aims to analyze the influence of service quality dimensions on purchase decisions at Cuan Farma Pharmacy in East Jakarta, to inform strategies for enhancing competitiveness through improvements in customer experience.

2. Methods

Study Design and Setting

This study employed a quantitative research design with a cross-sectional approach to analyze the influence of service quality dimensions on purchasing decisions at Cuan Farma Pharmacy using the SERVQUAL model [4]. The research was conducted at Cuan Farma Pharmacy, located in Duren Sawit Subdistrict, East Jakarta, during the period of March to April 2025.

Population and Sample

The population consisted of all customers who visited Cuan Farma Pharmacy and had made at least two visits in the past year. The sample size was determined using the Slovin formula with a margin of error of 5%, resulting in 287 respondents.

Sampling Technique

Systematic random sampling was applied. Inclusion criteria were customers aged 19–59 years, willing to sign informed consent, having made at least two visits, and having completed a transaction at the pharmacy. Exclusion criteria included customers who did not complete the questionnaire or had communication limitations. Respondents were selected based on their order of arrival in the transaction system by randomly choosing odd numbers that met the inclusion criteria.

Research Instrument

Data were collected using a structured questionnaire developed based on the SERVQUAL dimensions [4], which have been widely applied in pharmacy service research [10],[12]. The instrument used a 5-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). The mean scores were then categorized into five interpretation levels, as shown in **Table 1**.

Table 1. Interpretation of results

Scale Range	Category
4.21 - 5.00	Very Satisfied
3.41 - 4.20	Satisfied
2.61 - 3.40	Fairly Satisfied
1.81 - 2.60	Dissatisfied
1.00 - 1.80	Very Dissatisfied

The instrument was tested for validity and reliability using SPSS version 26. All items met the validity threshold ($r \geq 0.361$), and the instrument demonstrated excellent reliability with a Cronbach's Alpha value of 0.94. These tests followed the recommendations for statistical validation as outlined by Field [17].

Data Analysis

The collected data were analyzed using descriptive statistics to describe frequency distributions and respondent characteristics. Multiple linear regression analysis was applied to test the influence of independent variables on the dependent variable. A significance level of $p < 0.05$ was used. Data presentation was conducted through narratives, frequency tables, and graphical visualizations [17].

Ethical Considerations

This study was reviewed and approved by the Research Ethics Committee of STIKes IKIFA, Jakarta, Indonesia (Approval No. 004555/Komite Etik Penelitian STIKes IKIFA/2025).

3. Results and Discussion

Respondent Characteristics

Cuan Farma Pharmacy is located in Duren Sawit Subdistrict, East Jakarta. Respondent characteristics are presented in **Table 2**. A total of 287 respondents participated in this study, consisting of 133 males (46.3%) and 154 females (53.7%). The largest proportion of respondents were in the 29–38 years age group (34.1%), followed by 19–28 years (32.8%), 39–48 years (24.4%), and 49–58 years (8.7%). In terms of education, the majority had completed high school or an equivalent level (82.2%), while smaller proportions had completed junior high school (5.9%), diploma (6.7%), or bachelor's degree (4.5%). Most respondents reported visiting the pharmacy more than twice (62.0%), while the remaining 38.0% had visited twice.

Table 2. Characteristics of study respondents

Category	Number	Percentage
Gender		
Male	133	46.3
Female	154	53.7
Age Group		
19–28 years	94	32.8
29–38 years	98	34.1
39–48 years	70	24.4
49–58 years	25	8.7
Education		
Primary	2	0.7
Junior High	17	5.9
High School	236	82.2
Diploma	19	6.7
Bachelor	13	4.5

Number of visits		
2 visits	109	38.0
> 2 visits	178	62.0

These findings indicate that the majority of Cuan Farma’s customers are women of productive age with relatively moderate educational backgrounds, which may influence their purchasing decisions and service expectations. According to BPS data from 2020, the population of Duren Sawit Subdistrict was 414,604, with a sex distribution of 49.1% male and 50.9% female, supporting the representativeness of the sample [7].

Univariate Analysis

Univariate analysis was conducted to describe respondents’ perceptions of the research variables, namely tangibles, reliability, responsiveness, assurance, empathy, and purchase decision. Each variable was measured using a 5-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). As shown in **Table 3**, the tangible dimension obtained the highest mean score (3.62), categorized as *satisfied*. This indicates that customers particularly value aspects related to physical facilities and staff appearance. Empathy followed with a mean of 3.44 (*satisfied*), reflecting the importance of personal attention from pharmacy staff. Assurance (3.36), reliability (3.35), and responsiveness (3.30) were rated lower, all falling into the *fairly satisfied* category, suggesting room for improvement in these areas. The purchase decision variable had a mean of 3.23 (*fairly satisfied*), implying that although customers were generally positive, their decisions were not strongly influenced by service quality alone.

Table 3. Results of univariate analysis of research data

Variable	Mean	Median	Std. Dev	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)
Tangible	3.62	3.60	0.61	0 (0.0)	15 (5.2)	99 (34.5)	143 (49.8)	30 (10.5)
Reliability	3.35	3.40	0.65	2 (0.7)	44 (15.3)	106 (36.9)	120 (41.8)	15 (5.2)
Responsiveness	3.30	3.40	0.66	4 (1.4)	52 (18.1)	103 (35.9)	118 (41.1)	10 (3.5)
Assurance	3.36	3.40	0.62	2 (0.7)	39 (13.6)	115 (40.1)	119 (41.5)	12 (4.2)
Empathy	3.40	3.60	0.70	3 (1.0)	32 (11.1)	95 (33.1)	141 (49.1)	16 (5.6)
Purchase Decision	3.23	3.20	0.45	0 (0.0)	23 (8.0)	178 (62.0)	81 (28.2)	5 (1.7)

The tangible dimension provided the highest score, with respondents giving the most favorable response to the statement “*Pharmacy staff are neatly dressed.*” This result differs from a previous study at Sehat Bersama 2 Pharmacy in Jakarta, where the highest-rated item was “*Medicines are neatly arranged in the pharmacy,*” while “*Staff are neat and clean*” received a lower score [8]. These findings confirm that tangible aspects—particularly the physical evidence of service such as staff appearance and facility cleanliness—remain important indicators of perceived service quality [4].

Partial t-test

A partial t-test was conducted to examine the individual effect of each service quality dimension on purchasing decisions. The results are presented in **Table 4**. The note under the table clarifies that purchase decision was the dependent variable in the

regression model, meaning that all coefficients, t-values, and significance levels represent the extent to which tangibles, reliability, responsiveness, assurance, and empathy (independent variables) contribute to variations in customers' purchasing decisions.

Table 4. Results of the t-test

Model	Unstandardised Coefficients (B)	Std. Error	Standardised Coefficients (Beta)	t	Sig.
(Constant)	1.239	0.137	-	9.02	0.000
Tangible	0.106	0.041	0.143	2.62	0.009
Reliability	0.119	0.044	0.170	2.67	0.008
Responsiveness	0.100	0.041	0.145	2.42	0.016
Assurance	0.064	0.044	0.087	1.43	0.153
Empathy	0.194	0.042	0.298	4.66	0.000

a. Dependent Variable: Purchase Decision

The results indicate that four dimensions – tangibles, reliability, responsiveness, and empathy – had a statistically significant effect on purchasing decisions ($p < 0.05$). In contrast, the assurance dimension did not show a significant effect ($p = 0.153$).

Among these variables, **empathy** emerged as the strongest predictor ($\beta = 0.298$; $t = 4.66$), suggesting that attentiveness, friendliness, and concern from pharmacy staff are crucial in motivating repeat purchases. This is consistent with the findings of Hermawan and Khajar (2024), who reported that empathy contributed most strongly to customer loyalty through purchase decisions at Salsabilah Pharmacy [9]. From a managerial perspective, this underscores the importance of training programs that emphasize active listening, empathy, and customer-centered communication to enhance trust and loyalty.

Reliability also showed a significant positive effect ($\beta = 0.170$; $t = 2.67$). This finding aligns with Wulandari and Ermawati (2023), who demonstrated that reliable service builds consumer trust and encourages loyalty at Pondok Sehat Pharmacy [10]. Accuracy in dispensing, consistency in service delivery, and adherence to professional standards are therefore critical in strengthening pharmacy credibility.

The tangible dimension ($\beta = 0.143$; $t = 2.62$) indicates that customers value the physical appearance of the pharmacy, including cleanliness, waiting area comfort, and staff presentation. Surachman and Azis (2017) emphasized that professional physical environments enhance customer confidence [11]. While tangible aspects create positive first impressions, they should be reinforced by interpersonal service quality to sustain long-term loyalty.

Responsiveness ($\beta = 0.145$; $t = 2.42$) was also significant, highlighting the role of staff speed and accuracy in service provision. This result is in line with Putri (2017), who showed that responsiveness increases customer satisfaction and purchase intentions [12]. Pharmacy managers can improve responsiveness by optimizing workflow, ensuring adequate staffing, and adopting digital tools to reduce waiting times.

By contrast, assurance ($\beta = 0.087$; $t = 1.43$) did not significantly influence purchasing decisions. Although assurance reflects competence and trust, customers may perceive this factor as a baseline expectation rather than a differentiating attribute. This differs from Widiyanto, Sumaryono, and Djoharsjah (2020), who found that assurance influenced loyalty in pharmacies emphasizing patient education [13]. This suggests that in highly competitive urban markets, customers prioritize immediacy, responsiveness, and empathy over assurance, requiring pharmacies to adapt their service strategies accordingly.

F-statistic test

The F-test was applied to examine the joint effect of all service quality dimensions on purchasing decisions. While the partial t-test provides information about the influence of each dimension individually, the F-test assesses whether the five SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—collectively explain a significant variation in purchase decision. This approach is crucial because, in practice, customer decisions are rarely determined by a single service attribute alone. Instead, they reflect the combined impression of multiple service quality factors, such as staff empathy, facility appearance, and responsiveness, which together shape the overall customer experience and influence their purchasing behavior. Previous studies have emphasized that service quality as a holistic construct has a strong impact on consumer decision-making in the pharmacy sector, reinforcing the value of simultaneous testing [14],[15]. The results of this analysis are presented in Table 5.

Table 5. Results of the F-test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	27.72	5	5.545	50.15	0.000b
Residual	31.07	281	0.111	-	-
Total	58.79	286	-	-	-

a. Dependent Variable: Purchase Decision

b. Predictors: (Constant), Empathy, Tangible, Responsiveness, Assurance, Reliability

The F-test result ($F = 50.15$, $p < 0.001$) demonstrates that the five SERVQUAL dimensions simultaneously have a significant effect on purchasing decisions. This indicates that, although assurance was not significant in the partial test, it still contributes to the overall explanatory power when combined with other dimensions. The finding is consistent with previous research at Salsabila Pharmacy, which showed that service quality significantly influences customer purchasing decisions [14]. Similarly, a study at Kimia Farma Pharmacy in Banyuwangi confirmed that higher service quality is associated with stronger purchasing intentions [15]. These results reinforce the argument that improving service quality comprehensively across all dimensions is essential for pharmacies to remain competitive and sustain customer loyalty in urban markets.

Coefficient of determination

The coefficient of determination (R^2) was calculated to assess how much of the variation in purchasing decisions could be explained by the five dimensions of service quality. While the F-test confirmed the overall significance of the model, the R^2 value provides additional insight into the explanatory power of the independent variables as a group. This is particularly important in behavioral studies, where consumer decision-making is often influenced by a mix of service-related and external factors. By examining R^2 , the study can evaluate the extent to which SERVQUAL dimensions capture the determinants of purchase decisions and identify the potential role of other variables not included in the model.

Table 6. Results of the coefficient of determination

Model	R	R Square	Adjusted R-Square	Standard Error of the Estimate
1	0.687a	0.472	0.462	0.332

a. Predictors: (Constant), Empathy, Tangible, Responsiveness, Assurance, Reliability

b. Dependent Variable: Purchase Decision

As shown in **Table 6**, the model achieved an R^2 value of 0.472, indicating that 47.2% of the variance in purchase decisions can be explained by the combined effect of the five SERVQUAL dimensions. The remaining 52.8% of the variance is influenced by other factors not included in this study. Compared to the findings of Konyak and Vidhyarthi (2020), who reported an R^2 of 78.5% in a similar analysis of pharmacy service quality [16], the explanatory power in this study is relatively lower. This discrepancy may be due to differences in sample size, measurement approaches, and research settings, as noted in methodological discussions by Field (2017) [17].

The implication of this result is that while service quality dimensions are critical predictors of purchasing decisions, they do not fully account for customer behavior in the pharmacy context. Other factors, such as pricing strategies, promotional activities, product availability, brand reputation, and accessibility of pharmacy services, may also play a substantial role in shaping consumer choices. For pharmacy managers, this finding underscores the need to not only maintain high service quality but also integrate it with broader marketing and operational strategies to effectively influence purchasing behavior.

Limitation of the study

This study has several limitations. First, it was conducted in a single pharmacy in East Jakarta, which may restrict the generalizability of the findings; future studies should involve multi-site samples to capture broader consumer behavior. Second, the cross-sectional design only reflects perceptions at one point in time, making it difficult to establish causality, so longitudinal research is recommended. Third, the reliance on self-reported survey data may introduce bias, suggesting that mixed-method approaches could provide richer insights. Finally, the model explained 47.2% of the variance in purchasing decisions, leaving more than half unexplained, which indicates that other factors such as pricing strategies, promotions, product variety, waiting time, and location may also influence outcomes. Addressing these limitations in future research will provide a more comprehensive understanding of the determinants of purchasing decisions in the pharmacy sector.

4. Conclusion

This study concludes that service quality dimensions collectively have a significant effect on purchasing decisions at Cuan Farma Pharmacy in East Jakarta. At the individual level, tangibles, reliability, responsiveness, and empathy showed significant positive influences, with empathy emerging as the strongest predictor, while assurance was not statistically significant. These findings highlight that customers place greater value on staff attentiveness, responsiveness, and reliable service, supported by a clean and professional environment, than on assurance, which is often perceived as a basic expectation. From a managerial perspective, pharmacy managers should focus on enhancing interpersonal skills, workflow efficiency, and facility quality to strengthen customer trust and loyalty. Future research should expand the scope of variables by incorporating factors such as pricing, promotions, product variety, and location, as well

as applying longitudinal or mixed-method designs, to provide a more comprehensive understanding of consumer behavior in the pharmacy sector.

Acknowledgment:

The authors would like to thank STIKes IKIFA, Cuan Farma Pharmacy, and all respondents for their valuable support and participation in this study.

Conflicts of Interest:

The authors declare that there is no conflict of interest regarding the publication of this paper.

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