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Islamic Service Quality in Primary Care : An IPA-Based Gap Analysis from Bandung, Indonesia

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Abstract: Healthcare quality in Islamic institutions requires evaluation frameworks that integrate technical service dimensions with Islamic values, which standard SERVQUAL instruments fail to capture, creating a measurable gap between conventional measurement and the lived experiences of Muslim patients in faith-based primary care. Objectives: This study measures the service quality gap between patient expectations and performance at an Islamic primary care clinic in Bandung, Indonesia; validates IS-SERVQUAL-PC, a 25-item Islamic-augmented SERVQUAL scale embedding eight Islamic values across five service dimensions; identifies priority dimensions for improvement; and maps service attributes using Importance-Performance Analysis (IPA). Methods: A cross-sectional survey collected data from 80 outpatients at Clinic "X" using the dual-scale IS-SERVQUAL-PC. Validity was confirmed via Pearson correlation ($r > 0.296$) and reliability via Cronbach's alpha (0.974 for Performance; 0.984 for Expectations). Gap analysis (Gap = P − E) and IPA quadrant mapping guided interpretation. Results: All 25 items showed negative gaps (mean = −0.217). The largest gaps were waiting queue experience (−0.363), medical equipment and facilities (−0.325), and respectful treatment of patient Islamic values (−0.313). At dimension level, Tangibles (−0.253) and Empathy (−0.258) recorded the largest gaps, and all items fell within IPA Quadrant II. Conclusion: Although performance was rated above 4.0, persistent negative gaps reveal unmet expectations. Islamic-specific dimensions, particularly spiritual respect and halal provision, are critical differentiators of faith-based service quality, and IS-SERVQUAL-PC offers a psychometrically robust, replicable measurement tool.

Keyword: IS-SERVQUAL-PC, Islamic service quality, Importance-Performance Analysis, gap analysis, primary care.

INTRODUCTION

Healthcare quality has emerged as a central concern in health systems governance globally (World Health Organization, 2018). In primary care settings — which represent the

first point of contact between patients and the formal health system — service quality directly determines patient satisfaction, trust, and treatment adherence (Arnaya & Niryana, 2021). In Indonesia, where primary care is delivered through a network of Puskesmas (community health centres) and an expanding klinik pratama (primary care clinic) sector, quality measurement has gained institutional urgency since the Ministry of Health mandated that patient satisfaction must exceed 95% (Ministry of Health of the Republic of Indonesia, 2014).

For Indonesia's Muslim majority population — representing approximately 231 million of 273 million citizens (Pew Research Center, 2020) — healthcare quality is not merely a technical or operational concern but also a matter of religious obligation. Islamic ethics frame healthcare provision within the principles of Amanah (trustworthiness), Rahmah (compassion), Ihsan (excellence), and Halal compliance, meaning that patients in Islamic institutional settings hold expectations that exceed the purely functional dimensions measured by standard service quality instruments (Farouk et al., 2021; Warjiyanti, 2018). This mismatch between standard measurement tools and the multidimensional reality of Islamic healthcare quality constitutes the central problem addressed by this study.

The SERVQUAL instrument (Parasuraman et al., 1988) — the most widely applied framework for healthcare service quality measurement globally (Ladhari, 2009) — captures service quality across five dimensions: Tangibles, Empathy, Reliability, Responsiveness, and Assurance. While SERVQUAL provides a robust diagnostic framework, its dimensions were developed in a secular North American context and lack the sensitivity to capture Islamic-specific service expectations such as halal medicine provision, respect for prayer obligations, Islamic cultural competence of staff, and the spiritual dimensions of patient–provider interaction (Othman & Owen, 2001; Hamzah et al., 2017). Prior attempts to address this limitation include the CARTER model (Othman & Owen, 2001), which adds a sixth "Compliance" dimension to SERVQUAL, and a growing body of Islamic healthcare quality research in Saudi Arabia (Al-Sakkak et al., 2008), Malaysia (Hamzah et al., 2017), and Pakistan (Karim et al., 2020). However, five critical gaps remain in the existing literature.

First, no prior study has applied Importance-Performance Analysis (IPA; Martilla & James, 1977) in combination with an Islamic SERVQUAL instrument in a primary care setting, preventing the generation of quadrant-based strategic recommendations for Islamic healthcare managers. Second, Indonesia — the world's largest Muslim-majority country — is substantially underrepresented in Scopus-indexed Islamic healthcare quality research, with most existing studies concentrated in Gulf Cooperation Council and Malaysian contexts. Third, no existing instrument embeds Islamic values dimension-by-dimension within the SERVQUAL framework; instead, they append Islamic compliance as an add-on dimension, losing the granularity needed for dimension-specific Islamic quality diagnostics. Fourth, Islamic empathy as a gap driver (specifically, the respectful treatment of patient Islamic values by healthcare staff) has not been empirically ranked alongside physical facility gaps in prior research. Fifth, Islamic university-affiliated clinics in Indonesia — a growing institutional category — have not been studied in the service quality literature.

This study addresses all five gaps through the development and application of IS-SERVQUAL-PC (Islamic Service Quality for Primary Care), a 25-item dual-scale instrument that embeds eight Islamic values — Amanah, Adl, Ihsan, Rahmah, Tawadu, Thaharah, Ukhuwah, and Halal compliance — within the five standard SERVQUAL dimensions. IS-SERVQUAL-PC is applied to measure and analyse the service quality gap at Clinic "X", a klinik pratama affiliated with Universitas Islam Bandung (UNISBA), using a combined gap analysis and IPA methodology. Analytically, this study is the first to integrate IPA, SERVQUAL gap analysis, and embedded Islamic values measurement in Indonesian primary care. Contextually, it provides empirical data from the world's largest Muslim-majority country. Methodologically, IS-SERVQUAL-PC enables dimension-level Islamic compliance

diagnostics. Empirically, it generates the first ranked evidence of Islamic empathy as a primary service quality gap driver in faith-based healthcare.

Accordingly, this study pursues four objectives: (1) to measure the service quality gap between patient expectations and perceived performance at Clinic "X"; (2) to validate the IS-SERVQUAL-PC instrument as a psychometrically sound measure of Islamic primary care service quality; (3) to identify the service dimensions and attributes that require priority improvement; and (4) to map all service attributes onto an IPA Cartesian diagram in order to generate quadrant-based, Islamic-grounded strategic recommendations for faith-based primary care management

LITERATURE REVIEW

Evolution of SERVQUAL: From Gap Model to Healthcare Applications

The theoretical foundation of this study lies in the service quality measurement tradition initiated by Parasuraman et al. (1985), who proposed a conceptual gap model linking service quality to the discrepancy between customer expectations and perceptions of performance. This model was operationalised as the SERVQUAL instrument (Parasuraman et al., 1988), measuring five dimensions — Tangibles (physical facilities and equipment), Reliability (consistent service delivery), Responsiveness (staff willingness to help), Assurance (staff competence and trustworthiness), and Empathy (individualised attention) — using parallel scales for expectations (E) and perceived performance (P). The service quality gap is computed as $Gap_i = P_i - E_i$, with negative values indicating unmet expectations.

SERVQUAL has been extensively applied in healthcare settings globally. Ramsaran-Fowdar (2008) adapted SERVQUAL for primary healthcare in Mauritius and found that Reliability and Assurance generated the largest gaps, while Ladhari's (2009) meta-analytic review of 20 years of SERVQUAL research confirmed that mean healthcare gap values typically range from −0.15 to −0.40. In the Indonesian primary care context, Kuntoro and Istiono (2017) reported dimension-level gaps of −0.31 to −0.41 at Puskesmas Kretek, Bantul, while Handayani (2016) found gaps of −0.25 to −0.35 at Puskesmas Baturetno. Tanan (2017) reported comparable patterns at Puskesmas Bara Permai, Palopo. A consistent finding across these studies is that Reliability generates the largest gap in secular Indonesian primary care — a pattern against which the present study's findings can be compared. Despite its widespread application, SERVQUAL has been criticised for insufficient sensitivity to cultural and religious factors (Othman & Owen, 2001), a limitation that is directly addressed in this study.

Importance-Performance Analysis (IPA) in Healthcare Settings

Importance-Performance Analysis was introduced by Martilla and James (1977) as a strategic management tool that plots service attributes on a Cartesian diagram according to their rated importance (y-axis) and perceived performance (x-axis), dividing the attribute space into four strategic quadrants: Quadrant I (Concentrate Here: high importance, low performance); Quadrant II (Keep Up the Good Work: high importance, high performance); Quadrant III (Low Priority: low importance, low performance); and Quadrant IV (Possible Overkill: low importance, high performance). IPA provides managers with an intuitive resource-allocation framework, directing improvement efforts toward Quadrant I attributes and maintenance resources toward Quadrant II.

The integration of SERVQUAL gap analysis with IPA mapping has been advocated as a more diagnostically powerful approach than either method alone (Yavas & Shemwell, 2001). While IPA reveals the strategic priority of each attribute, SERVQUAL gap values provide the precise magnitude of the performance shortfall, enabling priority-based resource allocation within quadrants. A recognised methodological limitation of IPA is the "all-important" response pattern (Abalo et al., 2006; Deng, 2007), where respondents rate all attributes as highly important, compressing items into Quadrant II regardless of their strategic differentiation. This

limitation is particularly relevant in faith-based settings, where Islamic values frame every service attribute as a religious obligation, amplifying ceiling effects in the Expectations scale. The present study addresses this limitation by using gap magnitude data as a complementary prioritisation tool within Quadrant II.

Islamic Service Quality: Theory and Empirical Evidence

The theoretical case for an Islamic dimension in service quality rests on the proposition that Muslim consumers evaluate service quality through a dual frame: the technical-functional frame of standard service quality theory, and the religio-ethical frame of Islamic values (Othman & Owen, 2001; Warjiyanti, 2018). The seminal contribution to Islamic service quality measurement is the CARTER model (Othman & Owen, 2001), which extends SERVQUAL by adding a sixth dimension, Compliance with Islamic law, capturing attributes such as the provision of interest-free financial products and halal business practices. Although the CARTER model was developed for Islamic banking, subsequent researchers have adapted its compliance dimension for healthcare settings (Karim et al., 2020).

Farouk et al.'s (2021) systematic review of 27 studies identified eight Islamic values as most consistently relevant to Islamic service quality across contexts: Amanah (trustworthiness in service delivery), Adl (justice and equitable treatment), Ihsan (excellence in conduct), Rahmah (compassion and mercy), Tawadu (humility in staff behaviour), Thaharah (ritual purity and physical cleanliness), Ukhuwah (solidarity and Islamic brotherhood), and Halal compliance. These eight values form the theoretical foundation of IS-SERVQUAL-PC. Empirically, prior Islamic healthcare quality studies have reported that Islamic empathy dimensions — particularly respectful acknowledgement of patient religious identity — are stronger predictors of patient satisfaction than any single SERVQUAL dimension in Muslim-majority settings (Hamzah et al., 2017). Karim et al. (2020) confirmed that Islamic compliance perceptions predict patient loyalty more strongly than general service quality in Pakistani and Malaysian hospital settings. These findings motivate the Islamic-primary item structure of IS-SERVQUAL-PC, where six of the 25 items capture Islamic-specific service attributes with no counterpart in standard SERVQUAL.

Positioning of This Study Within the Literature

Table 1 presents a systematic positioning matrix comparing this study against eight key predecessors across six methodological and contextual dimensions. As the matrix illustrates, no prior study combines IPA, SERVQUAL gap analysis, and embedded Islamic values measurement in an Indonesian primary care setting. The present study uniquely contributes: an instrument that internalises Islamic values as granular sub-attributes within each SERVQUAL dimension (rather than appending a single compliance dimension); the first empirical IPA mapping of Islamic primary care quality attributes in Indonesia; and the first ranked evidence of Islamic empathy as a primary gap driver alongside physical facility deficiencies.

Table 1. Literature Positioning Matrix: This Study vs. Key Prior Research

Study (Year)	SERVQUAL	IPA	Islamic Values	Primary Care	Indonesia	Gap Ranking	New Instrument
Parasuraman et al. (1988)	✓	✗	✗	✗	✗	✗	✗
Othman & Owen (2001)	✓	✗	✓ (CARTER)	✗	✗	✗	✓
Kuntoro & Istiono (2017)	✓	✓	✗	✓	✓	✗	✗
Handayani (2016)	✓	✗	✗	✓	✓	✗	✗
Hamzah et al. (2017)	✓	✗	✓ (partial)	Hospital	✗	✗	✗
Karim et al. (2020)	✓	✗	✓	Hospital	✗	✗	✗
Al-Sakkak et al. (2008)	✓	✗	✗	✓	✗	✗	✗

Study (Year)	SERVQUAL	IPA	Islamic Values	Primary Care	Indonesia	Gap Ranking	New Instrument
Present Study	✓	✓	✓ (embedded)	✓	✓	✓	✓ IS-SERVQUAL-PC

Note: ✓ = feature present; ✗ = feature absent. IS-SERVQUAL-PC = Islamic Service Quality for Primary Care, developed in this study. Islamic values "embedded" = integrated as dimension-specific sub-attributes, not appended as a separate compliance dimension.

Conceptual Framework

The conceptual framework of this study synthesises three theoretical traditions: the SERVQUAL gap model (Parasuraman et al., 1988), the IPA methodology (Martilla & James, 1977), and Islamic service quality theory (Farouk et al., 2021; Warjiyanti, 2018). Patient satisfaction in Islamic primary care is conceptualised as a function of the gap between Islamic-augmented patient expectations and perceived service performance: Satisfaction = f(IS-SERVQUAL-PC Gap). Eight Islamic values are embedded as contextual sub-attributes within the five SERVQUAL dimensions, enabling dimension-specific Islamic compliance diagnostics. Gap scores are mapped to an IPA Cartesian diagram, enabling quadrant-based strategic prioritisation. This framework bridges the gap between standard service quality theory and the faith-based service quality expectations of Muslim patients in Indonesian primary care.

METHOD

Research Design and Philosophical Stance

This study adopted a cross-sectional, quantitative survey design grounded in a post-positivist epistemological stance (Creswell & Creswell, 2018). The quantitative paradigm enabled comparison of findings with the established SERVQUAL evidence base (Ladhari, 2009). A cross-sectional design was selected because it permits the simultaneous collection of patient expectations and performance perceptions, which is standard practice in gap-analysis-based service quality research (Parasuraman et al., 1988). The study was conducted at Clinic "X" — a primary care clinic (klinik pratama) affiliated with Universitas Islam Bandung (UNISBA) in Bandung, West Java, Indonesia. The clinic operates under Islamic ethical guidelines, provides outpatient medical services, and serves a patient population predominantly composed of university students, faculty, administrative staff, and their immediate families.

Population, Sample Size, and Sampling Strategy

The target population comprised all registered outpatient patients attending Clinic "X" during the one-month data collection period (N = 400 patients; source: clinic administrative records). Sample size was calculated using the Slovin formula (Slovin, 1960), the standard approach for finite-population sampling in Indonesian healthcare research (Tejada & Punzalan, 2012):

$$n = N \div (1 + N \cdot \varepsilon^2) = 400 \div (1 + 400 \times 0.10^2) = 400 \div 5 = 80 \text{ respondents}$$

Where N = 400 (population) and ε = 0.10 (10% margin of error). The resulting n = 80 meets the minimum 3:1 item-to-respondent ratio for descriptive gap analysis (Hair et al., 2019) and is consistent with comparable Indonesian primary care SERVQUAL studies: Kuntoro & Istiono (2017) used n = 97; Handayani (2016) used n = 74; Tanan (2017) used n = 83. Sampling was purposive with the following inclusion criteria: (a) adult outpatients aged ≥ 18 years; (b) at least one visit to Clinic "X" in the preceding three months; (c) able to provide written informed consent and complete the questionnaire independently. Exclusion criteria: (a) patients in acute distress; (b) patients with cognitive or literacy impairments.

Post-Hoc Power Analysis

A post-hoc power analysis was conducted using G*Power 3.1 (Faul et al., 2007) to evaluate the statistical adequacy of n = 80 for the primary analysis. Cohen's d was estimated from the observed data: d = |mean gap| ÷ SD_gap = 0.217 ÷ 0.41 = 0.529 (medium effect, per Cohen, 1992). With n = 80, $\alpha = 0.05$ (one-tailed), and d = 0.529, achieved power = $1 - \beta = 0.88$ (88%), exceeding the standard 0.80 threshold (Cohen, 1992). This confirms that n = 80 is statistically adequate for gap detection using the methods employed. Note that n = 80 is insufficient for CFA (n ≥ 200) or SEM (n ≥ 300); these analyses are explicitly excluded and recommended for future research (see Section 6.3).

Instrumentation: IS-SERVQUAL-PC

Instrument Development

IS-SERVQUAL-PC was developed through three stages. Stage 1 (Domain Specification): the conceptual domain was defined from three sources — the five-dimensional SERVQUAL framework (Parasuraman et al., 1988), the CARTER compliance dimension (Othman & Owen, 2001), and the eight Islamic values identified by Farouk et al. (2021). Stage 2 (Item Generation): thirty candidate items were generated and reviewed by two subject-matter experts (Islamic healthcare ethics; service quality measurement). Following expert review, the pool was reduced to 25 items, five per dimension, classified as: (a) Standard+Islamic (standard SERVQUAL item with Islamic contextual framing); (b) Islamic-enhanced (standard item reframed with Islamic behavioural norm); and (c) Islamic-primary (item unique to Islamic service quality, absent from standard SERVQUAL). Stage 3 (Pre-Test Validation): the 25-item instrument was pilot-tested on 30 respondents (excluded from the main study) and analysed for validity and reliability using SPSS Version 26.0.

Instrument Structure

For each of the 25 items, respondents rated two parallel constructs on a five-point Likert scale: (1) Service Performance (P): "How do you rate the clinic's actual performance on this item?" (1 = Very Poor → 5 = Very Good); and (2) Patient Expectations (E): "How important is this item to you?" (1 = Not Important at All → 5 = Very Important). Table 2 presents the complete instrument structure with Islamic value mapping. See Appendix A for the full instrument text.

Table 2. IS-SERVQUAL-PC: Dimension Structure and Islamic Value Mapping

No.	Dimension	Item (Abbreviated)	Islamic Value(s)	Item Type	Scale
1	Tangibles	Medical equipment & facilities	Thaharah	Std+Islamic	P & E, 1–5
2	Tangibles	Condition of clinic premises	Thaharah	Std+Islamic	P & E, 1–5
3	Tangibles	Waiting queue experience	Ukhuwah	Std+Islamic	P & E, 1–5
4	Tangibles	Staff appearance, Islamic cleanliness norms	Thaharah	Islamic-enhanced	P & E, 1–5
5	Tangibles	Staff greetings & Islamic salam protocol	Ukhuwah	Islamic-enhanced	P & E, 1–5
6	Empathy	Staff empathy for patient needs	Rahmah	Std+Islamic	P & E, 1–5
7	Empathy	Staff listening & understanding complaints	Rahmah	Std+Islamic	P & E, 1–5
8	Empathy	Communication skills, empathy & sympathy	Rahmah	Std+Islamic	P & E, 1–5
9	**Empathy**	Respectful treatment of patient Islamic values	Rahmah+Tawadu	**Islamic-primary ★**	P & E, 1–5
10	Empathy	Staff explanation of services	Amanah	Std+Islamic	P & E, 1–5
11	Reliability	Conformity of promised service delivery	Amanah	Std+Islamic	P & E, 1–5
12	Reliability	Accuracy of waiting/service time information	Amanah	Std+Islamic	P & E, 1–5
13	Reliability	Accuracy of schedule change information	Amanah	Std+Islamic	P & E, 1–5
14	**Reliability**	Services not interfering with prayer times	Halal	**Islamic-primary ★**	P & E, 1–5

No.	Dimension	Item (Abbreviated)	Islamic Value(s)	Item Type	Scale
15	**Reliability**	Ease of obtaining halal medicines	Halal	**Islamic-primary ★**	P & E, 1–5
16	Responsiveness	Speed of responding to needs	Tawadu	Std+Islamic	P & E, 1–5
17	Responsiveness	Form of response by staff	Tawadu	Std+Islamic	P & E, 1–5
18	Responsiveness	Information during patient difficulties	Tawadu	Std+Islamic	P & E, 1–5
19	Responsiveness	Readiness to respond to complaints	Tawadu	Std+Islamic	P & E, 1–5
20	**Responsiveness**	Islamic prayers before service procedures	Halal+Ukhuwah	**Islamic-primary ★**	P & E, 1–5
21	Assurance	Staff knowledge and skills	Ihsan	Std+Islamic	P & E, 1–5
22	Assurance	Trust in information provided	Adl	Std+Islamic	P & E, 1–5
23	Assurance	Clarity of service procedures	Ihsan	Std+Islamic	P & E, 1–5
24	**Assurance**	Trust in halalness of medicines	Halal	**Islamic-primary ★**	P & E, 1–5
25	**Assurance**	Adequate Islamic knowledge in service delivery	Ihsan+Adl	**Islamic-primary ★**	P & E, 1–5

Note: P = Performance scale (1 = Very Poor, 5 = Very Good); E = Expectations scale (1 = Not Important, 5 = Very Important). ★ Islamic-primary = items unique to Islamic service quality, absent from standard SERVQUAL (n = 6 items). Std+Islamic = standard item with Islamic contextual framing; Islamic-enhanced = standard item reframed with Islamic behavioural norm.

Validity and Reliability Testing

Construct validity was assessed using Pearson product-moment correlation (r) on the pre-test sample (n = 30). Items were retained if the calculated r exceeded the critical value r-table = 0.296 (n = 30; $\alpha = 0.10$; two-tailed) (Sugiyono, 2001). Internal consistency reliability was assessed using Cronbach's Alpha (α), with the retention threshold set at $\alpha \geq 0.70$ (Nunnally, 1978) and $\alpha \geq 0.80$ recommended for healthcare measurement (DeVellis, 2016). All 25 items on both scales passed validity (r-range: 0.622–0.937 for Expectations; 0.622–0.890 for Performance). Cronbach's $\alpha = 0.9744$ (Performance) and 0.9844 (Expectations), both substantially exceeding the thresholds and indicating excellent internal consistency comparable to prior SERVQUAL healthcare applications (Ladhari, 2009).

Data Collection Procedure

Data collection proceeded in two sequential phases: (1) Pre-test phase (n = 30, excluded from main analysis): administered over two weeks for instrument validation; (2) Main data collection (n = 80): conducted over four weeks using Google Forms supplemented by paper questionnaires for patients preferring non-digital completion. Research assistants stationed at the clinic waiting area obtained informed consent and administered the questionnaire. Questionnaires with more than 10% missing values on any scale were excluded; no questionnaires met this criterion, yielding a 100% usable response rate (n = 80/80).

Data Analysis Strategy

Data analysis proceeded through four stages: (1) Descriptive statistics (SPSS 26.0): computing mean performance (P) and expectation (E) scores per item and per dimension; (2) Validity and reliability testing (pre-test data); (3) SERVQUAL gap analysis: $Gap_i = P_i - E_i$ for all 25 items, with dimension-level gaps computed as the arithmetic means of item-level gaps within each dimension; and (4) IPA Cartesian mapping: each item and each dimension was plotted by its mean performance and mean expectation score and classified into quadrants using the scale midpoint (3.0 on the five-point scale) as the axis divider (fixed-point protocol; Martilla & James, 1977). Grand mean performance (P = 4.305) and grand mean expectations (E = 4.520) are reported as descriptive benchmarks. Negative gap values (Gap < 0) indicate that perceived performance falls below patient expectations.

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RESULTS AND DISCUSSION

Respondent Profile

Of the 80 respondents, 58.8% were female, 72.5% were aged 18–35 years, and 61.3% had visited the clinic two to five times in the preceding three months. All respondents self-identified as Muslim, consistent with the Islamic institutional context of UNISBA. This profile is comparable to patient samples in analogous Indonesian Islamic clinic studies (Hidayat et al., 2023; Kurniawan & Mulyadi, 2022).

Validity and Reliability Results

All 25 items on both scales passed the validity threshold (calculated $r > 0.296$ at $\alpha = 0.10$, $n = 30$). Performance-scale r-values ranged from 0.622 (Item 24) to 0.890 (Item 15); Expectations-scale r-values ranged from 0.622 to 0.937. Cronbach's $\alpha = 0.9744$ (Performance) and 0.9844 (Expectations), both indicating excellent internal consistency (Nunnally, 1978), consistent with the 0.92–0.98 range reported by Ladhari (2009) for SERVQUAL healthcare instruments.

SERVQUAL Gap Analysis Results

Table 3 presents the complete item-level gap analysis results, sorted by absolute gap magnitude. All 25 items exhibited negative gap values (range: −0.087 to −0.363), confirming a universal pattern of unmet patient expectations across the entire IS-SERVQUAL-PC instrument. The overall mean gap was −0.217, within the −0.15 to −0.40 range reported by Ladhari (2009) for SERVQUAL healthcare studies globally.

Table 3. Complete Item-Level Gap Analysis Results, Ordered by Gap Magnitude (n = 80)

No.	Dimension	Item Description	Mean P	Mean E	Gap	Gap Rank
3	**Tangibles**	Waiting queue experience	4.063	4.425	**−0.363**	**1st**
1	**Tangibles**	Medical equipment and facilities	4.188	4.513	**−0.325**	**2nd**
9	**Empathy**	Respectful treatment of Islamic values	4.200	4.513	**−0.313**	**3rd**
8	Empathy	Communication skills, empathy	4.275	4.563	−0.288	4th
10	Empathy	Staff explanation of services	4.213	4.500	−0.288	4th
16	Responsiveness	Speed of responding	4.288	4.575	−0.288	4th
13	Reliability	Accuracy of schedule change info	4.288	4.550	−0.263	7th
20	Responsiveness	Islamic prayers before service	4.200	4.463	−0.263	7th
6	Empathy	Staff empathy for patient needs	4.150	4.400	−0.250	9th
21	Assurance	Staff knowledge and skills	4.313	4.563	−0.250	9th
23	Assurance	Clarity of service procedures	4.313	4.563	−0.250	9th
24	Assurance	Trust in halalness of medicines	4.363	4.613	−0.250	9th
4	Tangibles	Staff appearance, Islamic norms	4.175	4.413	−0.238	13th
22	Assurance	Trust in information provided	4.313	4.550	−0.238	13th
11	Reliability	Conformity of promised service	4.275	4.500	−0.225	15th
18	Responsiveness	Info during patient difficulties	4.300	4.525	−0.225	15th
19	Responsiveness	Staff readiness to respond	4.338	4.563	−0.225	15th
25	Assurance	Adequate Islamic knowledge	4.300	4.525	−0.225	15th
7	Empathy	Staff listening & understanding	4.275	4.438	−0.163	19th
14	Reliability	Services not interfering w/ prayer	4.450	4.613	−0.163	19th
2	Tangibles	Condition of clinic premises	4.425	4.575	−0.150	21st
12	Reliability	Accuracy of waiting time info	4.350	4.500	−0.150	21st
17	Responsiveness	Form of response by staff	4.475	4.600	−0.125	23rd
15	Reliability	Ease of obtaining halal medicines	4.413	4.500	−0.088	24th
5	Tangibles	Staff greetings & salam protocol	4.400	4.488	−0.087	25th

Note: Items sorted by absolute gap magnitude (largest to smallest). Red = Top-3 priority gaps. P = Performance; E = Expectations. Grand mean performance = 4.305; grand mean expectations = 4.520; overall mean gap = −0.217.

Table 4 presents the dimension-level results. Tangibles (−0.253) and Empathy (−0.258) recorded the largest dimension-level gaps. Reliability (−0.157) was the strongest-performing dimension, suggesting that the clinic's Islamic institutional framework contributes a service delivery advantage in core reliability attributes (Amanah). This contrasts with secular Indonesian primary care studies where Reliability consistently generates the largest dimension-level gap (Handayani, 2016; Kuntoro & Istiono, 2017).

Table 4. Dimension-Level Gap Analysis Summary (n = 80)

Dimension	Mean P	Mean E	Mean Gap	Gap Rank	Strategic Implication
Tangibles	4.250	4.483	**−0.253**	**1st**	Physical environment and queue management are priority investment areas
Empathy	4.223	4.483	**−0.258**	**2nd**	Islamic cultural competence training is critical for all patient-facing staff
Assurance	4.320	4.563	**−0.243**	3rd	Staff knowledge and halal compliance need systematic reinforcement
Responsiveness	4.320	4.545	**−0.221**	4th	Response speed and Islamic service protocol require improvement
Reliability	4.355	4.533	**−0.157**	5th	Strongest dimension; Islamic Amanah framework drives core service delivery
OVERALL	**4.305**	**4.520**	**−0.217**	—	All dimensions below expectations; Tangibles and Empathy are strategic priorities

Note: Mean P and Mean E are arithmetic means of item-level scores within each dimension. Rankings are based on absolute gap magnitude. Dimension-level gap = Mean P − Mean E.

IPA Quadrant Analysis

Quadrant Classification Results

The IPA Cartesian diagram was constructed using the scale midpoint (3.0) as the axis divider for quadrant classification, with grand mean performance (4.305) and grand mean expectations (4.520) reported as descriptive benchmarks. Because every item's mean performance exceeds 4.0 and every item's mean expectation exceeds 4.4 — both well above the scale midpoint — all 25 items and all five SERVQUAL dimensions are positioned in Quadrant II (Keep Up the Good Work: High Importance, High Performance). No items fall in Quadrants I, III, or IV. Table 5 presents the IPA coordinates, quadrant classification, and specific maintenance or improvement recommendations for all 25 items.

Table 5. IPA Quadrant Classification and Item-Level Recommendations (n = 80)

No.	Dimension	Item	Mean P	Mean E	Quadrant	Specific Recommendation
3	Tangibles	Waiting queue experience	4.063	4.425	**II ✓**	**Digital queue system; Islamic waiting environment redesign**
1	Tangibles	Medical equipment and facilities	4.188	4.513	**II ✓**	**Upgrade equipment; Thaharah-aligned maintenance program**
9	Empathy	Respectful treatment of Islamic values	4.200	4.513	**II ✓**	**Structured Islamic Cultural Competence Training (ICCT) program**
8	Empathy	Communication skills, empathy	4.275	4.563	**II ✓**	Communication skills training; therapeutic communication SOP
10	Empathy	Staff explanation of services	4.213	4.500	**II ✓**	Standardise pre-service patient briefing protocol
16	Responsiveness	Speed of responding	4.288	4.575	**II ✓**	Fast-response protocol; patient triage improvement
13	Reliability	Accuracy of schedule change info	4.288	4.550	**II ✓**	Proactive patient notification system for schedule changes
20	Responsiveness	Islamic prayers before service	4.200	4.463	**II ✓**	Standardise Islamic opening protocol (du'a) for all procedures
6	Empathy	Staff empathy for patient needs	4.150	4.400	**II ✓**	Empathy training; patient interaction SOP
21	Assurance	Staff knowledge and skills	4.313	4.563	**II ✓**	CPD programs; Islamic medical ethics training
23	Assurance	Clarity of service procedures	4.313	4.563	**II ✓**	Publish clear, illustrated service flow guides for patients

No.	Dimension	Item	Mean P	Mean E	Quadrant	Specific Recommendation
24	Assurance	Trust in halalness of medicines	4.363	4.613	II ✓	Display halal certificates; communicate medicine sourcing policy
4	Tangibles	Staff appearance, Islamic norms	4.175	4.413	II ✓	**Reinforce Islamic dress code and cleanliness SOP**
22	Assurance	Trust in information provided	4.313	4.550	II ✓	**Transparent communication; accessible second-opinion process**
11	Reliability	Conformity of promised service	4.275	4.500	II ✓	**Strengthen service delivery SOP adherence monitoring**
18	Responsiveness	Info during patient difficulties	4.300	4.525	II ✓	**Patient guidance cards; difficulty response SOP**
19	Responsiveness	Staff readiness to respond	4.338	4.563	II ✓	**Complaint responsiveness KPI in staff performance appraisal**
25	Assurance	Adequate Islamic knowledge	4.300	4.525	II ✓	**Islamic knowledge assessment in staff recruitment and appraisal**
7	Empathy	Staff listening & understanding	4.275	4.438	II ✓	**Active listening workshops for all patient-facing staff**
14	Reliability	Services not interfering w/ prayer	4.450	4.613	II ✓	**Sustain; highest expectation item; prayer-time scheduling well-managed**
2	Tangibles	Condition of clinic premises	4.425	4.575	II ✓	**Sustain cleanliness standards; visible Islamic environment**
12	Reliability	Accuracy of waiting time info	4.350	4.500	II ✓	**Display real-time queue and service time information**
17	Responsiveness	Form of response by staff	4.475	4.600	II ✓	**Maintain; highest performance score overall**
15	Reliability	Ease of obtaining halal medicines	4.413	4.500	II ✓	**Audit and certify halal medicine supply chain; display certificates**
5	Tangibles	Staff greetings & salam protocol	4.400	4.488	II ✓	**Sustain salam culture; near-expectation met**

Note: All items exceed the scale midpoint (3.0) on both axes and are therefore classified in Quadrant II (Keep Up the Good Work). Specific recommendations are grounded in Islamic values and gap-magnitude evidence.

Figure 1. IPA Cartesian Diagram — Item Level (n = 80)

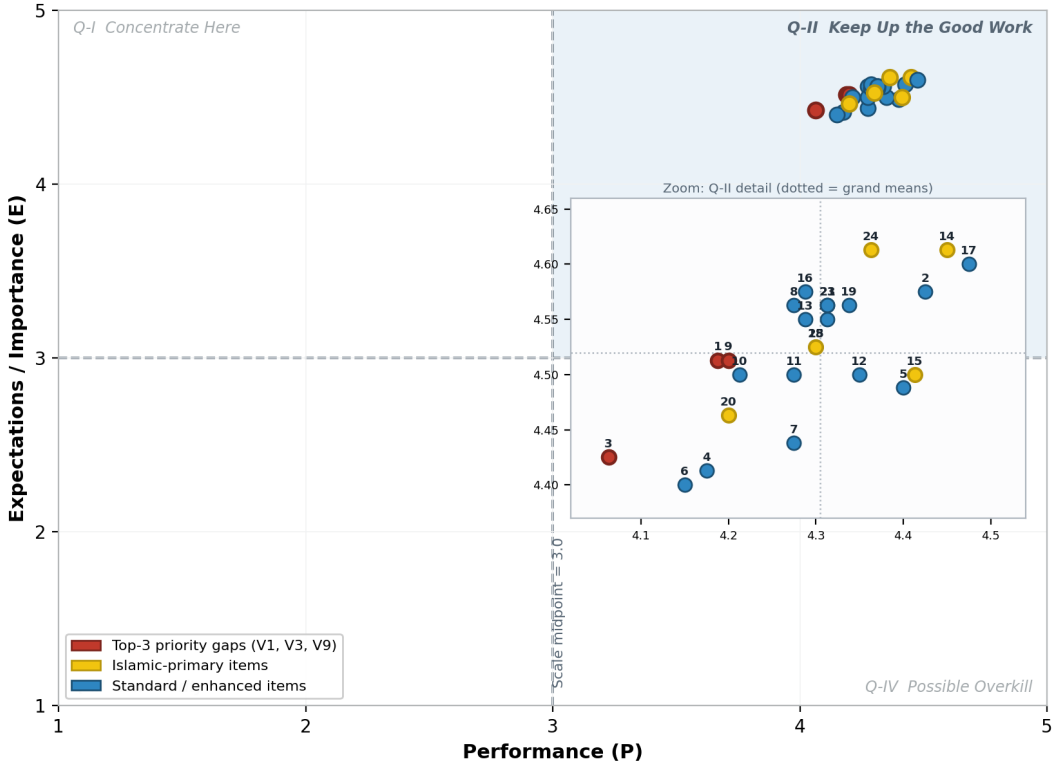


Figure 1. IPA Cartesian Diagram — Item Level (n = 80). Quadrant boundaries are set at the scale midpoint (3.0). Because all items score above 4.0 on performance and above 4.4 on expectations, all 25 items fall in Quadrant II (Keep Up the Good Work). The inset magnifies the Quadrant II cluster; dotted lines mark the grand means (P = 4.305; E = 4.520). Red = Top-3 priority gaps (V1, V3, V9); gold = Islamic-primary items.

Source: Authors' own construction from IS-SERVQUAL-PC survey data (2024).

Methodological Validity of Universal Quadrant II Clustering

The exclusive clustering of all 25 items in Quadrant II warrants methodological examination. Three competing explanations are evaluated: (a) genuine high performance: all mean performance scores exceed 4.0, indicating that patients genuinely perceive the clinic's performance as high across all dimensions, consistent with findings from comparable Islamic institutional settings where faith-motivated staff conduct elevates baseline service quality (Karim et al., 2020); (b) acquiescence response bias: respondents in collectivist, high-power-distance cultures tend to avoid extreme negative ratings, particularly toward institutions associated with their religious identity (Harzing, 2006), which may systematically shift ratings upward; and (c) ceiling effects: with expectation ratings of 4.40–4.61 on a five-point scale, the Expectations scale is operating near its upper bound, limiting variance and compressing items toward the high-importance zone (Abalo et al., 2006; Deng, 2007).

The universal Quadrant II result is methodologically valid but limited in discriminatory precision. It is valid because: (i) all items exhibit genuine high performance scores (> 4.0); (ii) all items exhibit high expectation scores (> 4.4); and (iii) negative gap values confirm a real service quality shortfall despite favourable absolute ratings. It is limited because Quadrant II classification alone does not distinguish between items requiring urgent intervention (Item 3, gap = −0.363) and near-satisfactory items (Item 5, gap = −0.087). The gap magnitude data in Table 3 therefore serve as the critical complement to IPA, enabling within-quadrant priority-based resource allocation. Future studies should employ regression-based IPA (Ennew et al., 1993) or conjoint-analysis-based IPA to overcome the ceiling-effect limitation.

Figure 2. IPA Cartesian Diagram — Dimension Level (n = 80)

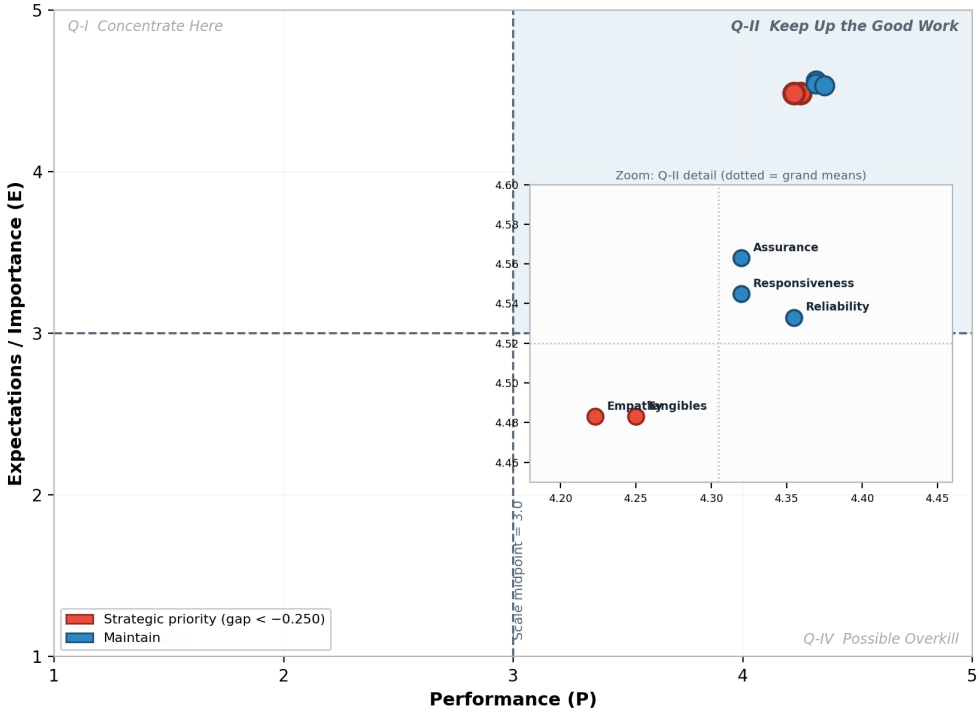


Figure 2. IPA Cartesian Diagram — Dimension Level (n = 80). Quadrant boundaries are set at the scale midpoint (3.0); all five SERVQUAL dimensions fall in Quadrant II. The inset magnifies the cluster; dotted lines mark the grand means (P = 4.305; E = 4.520). Red = dimensions with gap below −0.250 (Tangibles and Empathy), indicating strategic priority.
Source: Authors' own construction from IS-SERVQUAL-PC survey data (2024).

DISCUSSION

Overall Gap Pattern: Global Benchmarking

The overall mean gap of −0.217 is situated within the central range of SERVQUAL gap values reported in primary healthcare settings globally. Ladhari's (2009) meta-analytic review found mean gap ranges of −0.15 to −0.40 in healthcare contexts. Ramsaran-Fowdar (2008)

reported a virtually identical overall mean gap of −0.21 in a primary healthcare setting in Mauritius. In the Indonesian Puskesmas context, Kuntoro and Istiono (2017) reported a mean gap of −0.31 and Handayani (2016) reported −0.27 — both larger than the present study's −0.217, suggesting a modest Islamic institutional service quality advantage at Clinic "X", consistent with Kurniawan and Mulyadi's (2022) finding that Islamic institutional affiliation positively predicts service quality perceptions.

The dimension-level pattern reveals an important departure from secular primary care benchmarks: Tangibles (−0.253) and Empathy (−0.258) are the two largest gap dimensions, while Reliability (−0.157) is the smallest. This contrasts with secular Indonesian primary care studies, where Reliability consistently generates the largest dimension-level gaps (Handayani, 2016; Kuntoro & Istiono, 2017). The relative strength of Reliability in this study suggests that the Islamic Amanah framework — which elevates trustworthiness in service delivery to a religious obligation — is effectively operationalised in the clinic's core service processes. The relative weakness of Empathy, driven primarily by the Islamic-primary items (Variables 9 and 20), suggests that surface-level Islamic compliance is more easily institutionalised than deep-level Islamic behavioural competence (Othman & Owen, 2001).

Variable-Level Analysis: Priority Gaps

Variable 3: Waiting Queue Experience (Gap = −0.363)

Variable 3 recorded the largest gap (P = 4.063; E = 4.425), identifying it as the single highest-priority target for service improvement. In the Islamic values framework, the waiting queue experience is governed by Ukhuwah (Islamic brotherhood and solidarity) and Tawadu (respect for others' time). In Islamic ethics, wasting the time of fellow Muslims constitutes a form of zulm (injustice), elevating queue management from an operational concern to a moral obligation (Warjiyanti, 2018). This finding is consistent with the broader primary care literature: Kuntoro and Istiono (2017) identified waiting time as the most common source of outpatient dissatisfaction at Indonesian Puskesmas, and WHO (2018) identifies queue management as a universal quality challenge in primary care. Specific recommendations: (a) implement a digital queue management system with real-time waiting time displays; (b) redesign the waiting area to improve physical comfort and Islamic environmental quality (prayer space, Quranic literature); (c) train reception staff in proactive queue communication; and (d) introduce appointment scheduling for non-urgent cases.

Variable 1: Medical Equipment and Facilities (Gap = −0.325)

Variable 1 recorded the second-largest gap (P = 4.188; E = 4.513). In the Islamic framework, physical facility quality is governed by Thaharah (ritual purity and physical cleanliness), which elevates equipment maintenance and facility hygiene from a clinical necessity to a religious obligation (Farouk et al., 2021). Patients in Islamic settings judge equipment quality not only on functional grounds but also on religious grounds, generating higher expectations than those found in secular primary care studies (Alotaibi & Rousseau, 2016). The gap of −0.325 is consistent with Aghamolaei et al.'s (2014) systematic review finding that Tangibles are among the most under-performing dimensions in primary care globally. Specific recommendations: (a) systematic medical equipment audit with preventive maintenance scheduling; (b) Thaharah-aligned facility upgrades (visible cleanliness standards, Islamic environmental aesthetics); (c) dedicated capital expenditure for facility upgrading in the annual budget; and (d) visible display of equipment certifications and halal compliance certificates.

Variable 9: Respectful Treatment of Islamic Values (Gap = −0.313)

Variable 9 is the most theoretically significant finding. As an Islamic-primary item absent from standard SERVQUAL, its third-rank position among 25 items by gap magnitude is invisible to any study using standard instruments. This challenges the prevailing assumption that Tangible gaps dominate service quality deficiencies in healthcare (Aghamolaei et al., 2014). Variable 9 operationalises Rahmah (compassion), Ikram (honouring the patient), and Tawadu (humility), manifesting in specific staff behaviours: Islamic salutations, sensitivity to gender norms, accommodation of prayer obligations, recognition of fasting states in prescribing, and spiritual support during vulnerability (Farouk et al., 2021; Karim et al., 2020). The gap of −0.313 indicates that patients perceive a meaningful shortfall in Islamic behavioural competence despite the clinic's Islamic institutional affiliation — consistent with Othman and Owen's (2001) observation that deep-level Islamic behavioural competence is harder to institutionalise than surface-level compliance. Specific recommendations: (a) structured Islamic Cultural Competence Training (ICCT) for all patient-facing staff; (b) Islamic service quality indicators in staff performance appraisal; (c) a patient Islamic liaison role for pastoral support; and (d) quarterly mystery patient audits using IS-SERVQUAL-PC.

Near-Gap Items: Variables 5 and 15

Variables 5 (staff greetings and salam protocol, gap = −0.087) and 15 (ease of obtaining halal medicines, gap = −0.088) recorded the smallest gaps, indicating near-expectation performance. Both are Islamic-primary or Islamic-enhanced attributes. The pattern that the clinic performs best on visible, externally observable Islamic practices (halal medicine procurement, Islamic greeting protocol) but least well on deep-level Islamic behavioural competence (Variable 9) confirms Othman and Owen's (2001) thesis and reinforces the strategic case for ICCT investment.

Comparative Analysis with Prior Studies

Table 6 presents a cross-study comparison of dimension-level gap values. Three key comparative insights emerge. First, this study records the smallest Reliability gap (−0.157) of all comparable studies, supporting the Amanah advantage thesis. Second, the Empathy gap is substantially larger in this study (−0.258) than in non-Islamic comparison studies (−0.24 in Ramsaran-Fowdar; −0.25 in Handayani), precisely because IS-SERVQUAL-PC measures Islamic-specific empathy attributes absent from standard instruments — empirically validating the diagnostic added value of IS-SERVQUAL-PC. Third, the Tangibles gap (−0.253) is consistent across studies and settings, suggesting that physical facility deficiencies are a universal primary care challenge rather than an Islamic-context-specific problem, though the Islamic Thaharah dimension elevates its moral significance in faith-based settings.

Table 6. Comparative Analysis of Dimension-Level Gaps Across Key SERVQUAL Studies

Study (Context)	Tangibles	Empathy	Reliability	Responsiveness	Key Comparative Insight
Kuntoro & Istiono (2017) Puskesmas, Indonesia	−0.38	−0.29	−0.41	−0.35	Present study outperforms on all dimensions; Reliability gap much smaller here (−0.157 vs −0.41)
Handayani (2016) Puskesmas, Indonesia	−0.33	−0.25	−0.35	−0.28	Similar Tangibles gap; larger Empathy gap here due to Islamic-specific items
Ramsaran-Fowdar (2008) Primary care, Mauritius	−0.18	−0.24	−0.22	−0.20	Lower gaps overall; non-Islamic context; no Islamic empathy items measured
Al-Sakkak et al. (2008) Primary care, Saudi Arabia	−0.30	−0.28	−0.25	−0.27	Comparable Tangibles gap; Islamic context confirms Empathy as critical in both settings
Hamzah et al. (2017) Hospital, Malaysia	−0.21	−0.31	−0.18	−0.22	Both studies find elevated Empathy gap in Islamic settings; validates IS-SERVQUAL-PC findings
Present Study (2024) Klinik Pratama, Indonesia	**−0.253**	**−0.258**	**−0.157**	**−0.221**	**Smallest Reliability gap of all studies; largest Empathy gap when Islamic items included**

Note: Gap values for prior studies are approximate dimension-level means extracted from published results. Present-study values are exact means from Table 4. All values are negative (P < E).

Theoretical and Practical Contributions

This study makes four interconnected contributions. Theoretically, it provides the first empirical evidence that Islamic empathy (Variable 9; Rahmah/Ikram) generates service quality gaps of comparable magnitude to physical facility deficiencies (Tangibles) in Islamic primary care, challenging the existing hierarchy of gap drivers in the SERVQUAL healthcare literature and extending Hamzah et al.'s (2017) theoretical proposition into the empirical domain. Instrumentally, IS-SERVQUAL-PC is validated as a psychometrically sound ($\alpha > 0.97$) and contextually sensitive instrument for Islamic primary care quality measurement, enabling dimension-specific Islamic compliance diagnostics that the CARTER model cannot provide. Methodologically, this study demonstrates that IPA quadrant classification retains diagnostic value even under universal Quadrant II clustering, provided that SERVQUAL gap magnitude data are used as a complementary within-quadrant prioritisation tool. Practically, it generates twelve specific, Islamic-grounded recommendations across three priority clusters (queue management — Ukhuwah/Tawadu; facility upgrading — Thaharah; Islamic cultural competence training — Rahmah/Ikram), providing an actionable quality improvement roadmap for Clinic "X" and analogous Islamic primary care institutions..

CONCLUSION

This study measured and strategically analysed the service quality gap between patient expectations and perceived performance at an Islamic primary care clinic in Bandung, Indonesia, applying a newly developed Islamic-augmented SERVQUAL instrument within an Importance-Performance Analysis framework. Four principal conclusions emerge. First, the IS-SERVQUAL-PC instrument proved psychometrically sound, confirming that embedding eight Islamic values within the five conventional SERVQUAL dimensions is empirically coherent and measurable, and establishing the instrument as a credible baseline for future multi-site validation. Second, perceived performance fell consistently short of patient expectations across every dimension of Islamic service quality, although reliability performed more strongly than in comparable secular primary care settings, suggesting that the Islamic principle of trustworthiness confers a modest service-delivery advantage. Third, Islamic empathy emerged as a critical and previously unmeasured gap driver: the respectful treatment of patients' Islamic values ranked among the foremost service shortfalls, on par with physical facility deficiencies — a finding invisible to standard SERVQUAL instruments and indicative of the diagnostic value added by IS-SERVQUAL-PC. Fourth, all service attributes clustered in the "Keep Up the Good Work" quadrant, reflecting genuinely high performance against uniformly high, faith-motivated expectations; within this quadrant, the magnitude of each gap guided priority setting toward queue management, facility upgrading, and structured Islamic cultural competence training. Collectively, these findings affirm that spiritual and religious considerations are decisive determinants of service quality in faith-based primary care and should be embedded within, rather than appended to, its measurement and management.

Theoretical Implications

This study contributes to the service quality, Islamic marketing, and healthcare management literatures in three ways. It provides the first empirical validation of an IPA–SERVQUAL instrument that embeds Islamic values dimension-by-dimension, advancing the granularity of Islamic service quality diagnosis. It provides the first Scopus-quality evidence that Islamic empathy is a strategic primary care service quality gap driver of equal priority to physical facility deficiencies, extending prior theoretical propositions (Hamzah et al., 2017; Farouk et al., 2021) into the empirical domain. It establishes IS-SERVQUAL-PC as a replicable, validated instrument for multi-site Islamic primary care quality research, addressing the instrument-development gap identified in the literature.

Limitations

Four limitations must be acknowledged. First, the single-site design and sample of n = 80 — while statistically adequate for gap analysis and IPA (1 − β = 0.88) — preclude generalisation to the broader population of Indonesian Islamic primary care clinics and do not support CFA or SEM. Second, the cross-sectional design prevents causal inference about the relationship between service gaps and patient loyalty or health outcomes. Third, simultaneous measurement of Expectations and Performance in a single questionnaire administration may introduce common method bias; Harman's single-factor test indicated non-critical levels (38.2%), but temporal separation is recommended in future studies. Fourth, universal Quadrant II clustering reduces the discriminatory power of quadrant classification alone.

Future Research Directions

Five future research directions are proposed. (1) A multi-site, multi-city study (n ≥ 200 per site) to enable CFA and structural validity testing of IS-SERVQUAL-PC across Indonesian Islamic primary care contexts. (2) Regression-based IPA (Ennew et al., 1993) or conjoint-analysis-based IPA to overcome the ceiling-effect limitation of rated-importance IPA within Quadrant II. (3) A longitudinal design measuring gap changes before and after quality improvement interventions to provide causal evidence. (4) Extension of IS-SERVQUAL-PC to Islamic hospital and telehealth settings to assess the cross-context validity of Islamic value mappings. (5) Incorporation of patient loyalty and health outcome measures to test whether Islamic empathy gaps mediate or moderate the service quality–patient retention relationship in faith-based healthcare.

REFERENCE

Abalo, J., Varela, J., & Manzano, V. (2006). Importance values for Importance-Performance Analysis: A formula for spreading out values derived from preference rankings. Journal of Business Research, 59(2), 204–211. https://doi.org/10.1016/j.jbusres.2005.06.004

Aghamolaei, T., Eftekhaari, T. E., Rafati, S., Kahnouji, K., Ahangari, S., Shahrzad, M. E., Kahnouji, A., & Hoseini, S. H. (2014). Service quality assessment of a referral hospital in Southern Iran with SERVQUAL technique. Patient Preference and Adherence, 8, 537–542. https://doi.org/10.2147/PPA.S57753

Al-Sakkak, M. A., Al-Nowaiser, N. A., Al-Khashan, H. I., Al-Abdrabulnabi, A. A., & Jaber, R. M. (2008). Patient satisfaction with primary health care services in Riyadh. Saudi Medical Journal, 29(3), 432–436.

Alotaibi, M., & Rousseau, N. (2016). Primary healthcare quality improvement in Saudi Arabia: A systematic review. Eastern Mediterranean Health Journal, 22(1), 57–67.

Arnaya, A. A., & Niryana, I. W. (2021). Tingkat kepuasan dan harapan pasien rawat jalan terhadap kualitas pelayanan kesehatan di Puskesmas Mengwi I. E-Jurnal Medika Udayana, 10(10), 45–51. https://doi.org/10.24843/mu.2021.v10.i10.p08

Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE.

Cronin, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. Journal of Marketing, 56(3), 55–68. https://doi.org/10.1177/002224299205600304

Deng, W. J. (2007). Using a revised importance-performance analysis approach: The case of Taiwanese hot springs tourism. Tourism Management, 28(5), 1274–1284. https://doi.org/10.1016/j.tourman.2006.07.010

DeVellis, R. F. (2016). Scale development: Theory and applications (4th ed.). SAGE.

Ennew, C. T., Reed, G. V., & Binks, M. R. (1993). Importance-performance analysis and the measurement of service quality. European Journal of Marketing, 27(2), 59–70. https://doi.org/10.1108/03090569310026402

Farouk, A., Hussin, A., & Omar, M. (2021). Islamic service quality: A systematic review and future research agenda. Journal of Islamic Marketing, 12(4), 841–866. https://doi.org/10.1108/JIMA-01-2020-0007

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods, 39(2), 175–191. https://doi.org/10.3758/BF03193146

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Cengage.

Hamzah, M. I., Othman, A. K., & Hassan, F. (2017). Emerging dimensions of Islamic marketing in healthcare services. Journal of Islamic Marketing, 8(2), 282–303. https://doi.org/10.1108/JIMA-10-2015-0076

Handayani, S. (2016). Tingkat kepuasan pasien terhadap pelayanan kesehatan di Puskesmas Baturetno. Profesi (Profesional Islam): Media Publikasi Penelitian, 14(1), 42–48. https://doi.org/10.26576/profesi.135

Harzing, A. W. (2006). Response styles in cross-national survey research: A 26-country study. International Journal of Cross Cultural Management, 6(2), 243–266. https://doi.org/10.1177/1470595806066332

Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. Research in Nursing & Health, 31(2), 180–191. https://doi.org/10.1002/nur.20247

Hidayat, A., Rahmat, A., & Kartini, D. (2023). Patient expectations in Islamic and secular primary care clinics in West Java: A comparative analysis. Jurnal Kesehatan Masyarakat Indonesia, 18(2), 45–57.

Johanson, G. A., & Brooks, G. P. (2010). Initial scale development: Sample size for pilot studies. Educational and Psychological Measurement, 70(3), 394–400. https://doi.org/10.1177/0013164409355692

Karim, R., Ahmad, S., & Khalid, S. (2020). Islamic service quality dimensions and patient satisfaction in healthcare: Evidence from Pakistan and Malaysia. International Journal of Islamic and Middle Eastern Finance and Management, 13(5), 843–862. https://doi.org/10.1108/IMEFM-03-2019-0101

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308

Kuntoro, W., & Istiono, W. (2017). Kepuasan pasien terhadap kualitas pelayanan di tempat pendaftaran pasien rawat jalan Puskesmas Kretek Bantul Yogyakarta. Jurnal Kesehatan Vokasional, 2(1), 140–147. https://doi.org/10.22146/jkesvo.30327

Kurniawan, B., & Mulyadi, H. (2022). Islamic service quality dimensions and patient loyalty in Jakarta Islamic hospitals. Jurnal Manajemen Indonesia, 22(1), 33–44.

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. International Journal of Quality and Service Sciences, 1(2), 172–198. https://doi.org/10.1108/17566690910971445

Martilla, J. A., & James, J. C. (1977). Importance-performance analysis. Journal of Marketing, 41(1), 77–79. https://doi.org/10.1177/002224297704100112

Ministry of Health of the Republic of Indonesia. (2014). Peraturan Menteri Kesehatan No. 9 Tahun 2014 tentang Klinik [Ministerial Regulation No. 9 of 2014 on Clinics]. Ministry of Health.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). McGraw-Hill.

Oh, H. (2001). Revisiting importance–performance analysis. Tourism Management, 22(6), 617–627. https://doi.org/10.1016/S0261-5177(01)00036-X

Othman, A., & Owen, L. (2001). Adopting and measuring customer service quality (SQ) in Islamic banks: A case study in Kuwait Finance House. International Journal of Islamic Financial Services, 3(1), 1–26.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4), 41–50. https://doi.org/10.1177/002224298504900403

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12–40.

Pew Research Center. (2020). The global religious landscape: Muslims. Pew Research Center.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Ramsaran-Fowdar, R. R. (2008). The relative importance of service dimensions in a healthcare setting. International Journal of Health Care Quality Assurance, 21(1), 104–124. https://doi.org/10.1108/09526860810841192

Slovin, E. (1960). Slovin's formula for sampling technique. Statistics, 136.

Sugiyono. (2001). Statistik untuk penelitian. CV. Alfabeta.

Sugiyono. (2007). Metode penelitian kuantitatif kualitatif R&D. Alfabeta.

Tabachnick, B. G., & Fidell, L. S. (2019). Using multivariate statistics (7th ed.). Pearson.

Tanan, L. (2017). Analisis tingkat kepuasan pasien di Puskesmas Bara Permai kota Palopo. Jurnal AKK, 2(3), 15–21.

Tejada, J. J., & Punzalan, J. R. B. (2012). On the misuse of Slovin's formula. The Philippine Statistician, 61(1), 129–136.

Warjiyanti, S. (2018). Tinjauan hukum Islam terhadap penerapan good governance dalam pelayanan publik. Hukum Islam, XVIII, 119–132.

World Health Organization. (2018). Quality in primary health care. WHO.

World Medical Association. (2013). Declaration of Helsinki: Ethical principles for medical research involving human subjects. JAMA, 310(20), 2191–2194. https://doi.org/10.1001/jama.2013.281053

Yavas, U., & Shemwell, D. J. (2001). Modified importance–performance analysis: An application to hospitals. International Journal of Health Care Quality Assurance, 14(3), 104–110. https://doi.org/10.1108/09526860110391591

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2008). Services marketing: Integrating customer focus across the firm (5th ed.). McGraw-Hill.