Bulletin of Community Engagement
Vol. 5, No. 3, December 2025
https://attractivejournal.com/index.php/bce//index

The Health Service Quality Model: State Primary Care Perspective (Survey, Evaluation, and Strategy)

Herni Justiana Astuti [1]*, Suryo Budi Santoso [1], Devita Elsanti [1]
[1] *Universitas Muhammadiyah Purwokerto, Indonesia*

herni99@ump.ac.id *

ARTICLE INFO
Article history:
Received
September 11, 2025
Revised
November 28, 2025
Accepted
December 30, 2025

Abstract

This Quality of basic health services remains a persistent global and national policy concern, particularly at the primary-care level where community health centers (Puskesmas) serve as the frontline of universal health coverage. This study analyzes the quality of government-owned primary health services through three complementary perspectives: survey, evaluation, and strategy. Previous studies on Puskesmas service quality have generally been limited to a single analytical approach and rarely provide actionable strategic recommendations for both health centers and patients. Respondents consisted of 103 BPJS outpatients, 97 non-BPJS outpatients from eight Puskesmas in Banyumas Regency, and eight heads of Puskesmas. The survey dimension applies the Community Satisfaction Index (CSI), the evaluation dimension applies Importance Performance Analysis (IPA), and the strategy dimension applies the Service Quality Gap Model. The CSI results indicate that service quality for both BPJS and non-BPJS patients is categorized as "good," although conformity levels remain below 100 percent. IPA findings show no service element in Quadrant A for BPJS patients, whereas complaint, suggestion, and feedback handling emerge as the top priority for non-BPJS patients. The Gap Model reveals perception–expectation gaps in requirements and cost/tariff for BPJS patients, while gaps for non-BPJS patients extend to requirements, completion duration, cost/tariff, staff competence, staff behavior, and complaint handling. These findings imply that Puskesmas management should strengthen patient feedback channels and prioritize improvements in staff competence and complaint-handling mechanisms to enhance overall service quality.

Keywords: Health Service Quality, Primary Care, Community Satisfaction Index, Importance Performance Analysis, Service Quality Gap Model

Published by CV. Creative Tugu Pena
ISSN 2774-7077
Website https://www.attractivejournal.com/index.php/bce/

PENDAHULUAN

. Universal access to quality primary health care remains one of the most pressing global health policy issues. The World Health Organization reports that, despite measurable progress toward universal health coverage, persistent gaps in service availability, workforce capacity, and patient-centeredness continue to undermine the performance of primary-care systems in low- and middle-income countries (World Health Organization, 2024). A recent global review of public-health priorities likewise identifies strengthening primary health-care delivery and health-system resilience as one of the foremost challenges for the coming years (Lucero-Prisno et al., 2024). At the operational level, a scoping review of primary health-care quality across 22 countries found that, although indicators of structural quality have improved, process- and outcome-quality indicators, particularly those related to responsiveness to patient expectations, remain weak and inconsistently measured (Endalamaw et al., 2023).

In Indonesia, this global issue is mirrored in the performance of Community Health Centers (Puskesmas), the technical implementation units mandated to deliver basic health services within a defined working area (No. 36, 2009). Bureaucratic-reform policy explicitly identifies the improvement of public services as a national priority (No. 81, 2010), yet empirical evaluations consistently show that Puskesmas' performance does not fully match patient expectations, especially regarding administrative requirements, complaint handling, and service governance (Afiyah & Ayuningtyas, 2023). The phenomenon is amplified by the dual financing scheme operating in Indonesian primary care: patients covered by the National Health Insurance program (BPJS Kesehatan), now one of the largest single-payer schemes in the world, and patients who pay independently (non-BPJS). National satisfaction surveys of BPJS participants report consistently high aggregate indices (Nugraha et al., 2025), yet facility-level studies frequently find that BPJS and non-BPJS patients hold markedly different expectations and experience different service gaps (Wulandari et al., 2023).

Theoretically, patient satisfaction is best understood through the disconfirmation paradigm: satisfaction arises when perceived performance meets or exceeds expectation, while a shortfall produces dissatisfaction (Oliver, 1980; Kotler & Keller, 2016). Building on this logic, Parasuraman, Zeithaml, and Berry (1985) proposed the Service Quality Gap Model, which conceptualizes service quality as the cumulative result of five potential gaps between management perception, service specification, service delivery, external communication, and customer expectation. Importance Performance Analysis (Martilla & James, 1977) operationalizes the same expectation–performance comparison at the attribute level, enabling managers to prioritize improvement efforts.

Three empirical strands of literature converge on, yet also diverge around, the quality of primary-care services. First, regarding the Community Satisfaction Index (CSI), several Indonesian facility-level studies report "very good" or "good" categories (Bakhtiar et al., 2025; Nugraha et al., 2025), supporting the view that government primary care has reached an acceptable baseline; however, other studies report that specific dimensionsparticularly completion time and complaint handlingremain in the "not good" category even when the aggregate index is favorable (Suwandi et al., 2025), and a methodological gap persists because most CSI studies do not disaggregate results by financing scheme (BPJS versus non-BPJS), masking heterogeneity in expectations (Değer & İşsever, 2024).

Second, regarding Importance Performance Analysis, studies in Indonesian Puskesmas consistently place complaint-handling and completion-time attributes in the "top priority" quadrant (Bakhtiar et al., 2025), supporting a negative empirical pattern for these dimensions; conversely, tangibility and competence attributes are frequently found in the "maintain performance" quadrant, a positive pattern (Cai et al., 2025). A methodological gap remains, however, because most IPA studies rely solely on a single Cartesian mean-split without triangulating the result against an independent management perspective (Wang et al., 2026).

Third, regarding the Service Quality Gap Model, recent studies confirm that Gap 5 (the customer gap) is consistently negative in primary-care settings, indicating unmet expectations (Karume et al., 2025; Cui et al., 2025); however, very few studies extend the analysis to Gap 1 (the knowledge gap between management perception and patient expectation), and fewer still compare Gap 1 across patient segments with different financing arrangementsan empirical and methodological gap this study addresses (Ali et al., 2024; Guzmán-Leguel & Rodríguez-Lara, 2025).

The novelty of this study lies in its integration of the three frameworks (CSI, IPA, and the Gap Model) within a single survey-evaluation-strategy design applied separately to BPJS and non-BPJS outpatients across eight Puskesmas, and its explicit comparison of patient expectation with management perception (Gap 1), which prior single-method studies have not jointly examined. Unlike previous research that stops at descriptive satisfaction scores, this study contributes actionable, segment-specific strategic priorities for Puskesmas management. The objectives of this study are therefore to (1) measure the Community Satisfaction Index of BPJS and non-BPJS outpatients, (2) evaluate the conformity between performance and importance using IPA, and (3) identify and strategize service-quality gaps using the Gap Model.

THEORETICAL FRAMEWORK AND CONCEPTUAL MODEL

Expectation–Disconfirmation Theory and Patient Satisfaction

The conceptual foundation of this study rests on Oliver's Expectation–Disconfirmation Theory, which explains satisfaction as the outcome of a comparison between a consumer's prior expectation and the perceived performance of a product or service (Oliver, 1980). When perceived

performance equals or exceeds expectation, positive disconfirmation occurs, and satisfaction follows; when performance falls short, negative disconfirmation produces dissatisfaction (Karume et al., 2025). Kotler and Keller (2016) extend this logic to the marketing of services, arguing that customer satisfaction is fundamentally "a function of perceived performance and expectations." In the context of public primary health care, this theory underlies why a single aggregate satisfaction figure is insufficient: because expectations differ systematically across patient segments, most notably between insured (BPJS) and self-paying (non-BPJS) patients, the same level of performance can generate different satisfaction outcomes (Wulandari et al., 2023). Expectation–Disconfirmation Theory, therefore, provides the conceptual bridge between the Community Satisfaction Index, which measures the realized level of perceived performance, and the Importance Performance Analysis and Gap Model, which explicitly incorporates the expectation side of the comparison.

The Community Satisfaction Index (CSI) as a Survey Instrument

The Community Satisfaction Index is the standardized instrument mandated by the Indonesian Ministry of Administrative and Bureaucratic Reform (KEMENPAN-RB) for measuring public satisfaction with government service units, including Puskesmas (RI 14, 2017). The CSI operationalizes nine service elements, requirements, system/mechanism/procedure, completion duration, cost/tariff, product specification, competence, behavior of implementers, complaint handling, and infrastructure, each assigned an equal weight, and converts the weighted average perception score into an index ranging from 25 to 100 (RI 14, 2017). Theoretically, the CSI represents the "perceived performance" component of the disconfirmation framework: it captures how patients evaluate the service they actually received, independent of how important they consider each element to be (Nugraha et al., 2025). Recent evidence from national-level BPJS satisfaction surveys shows that aggregate CSI scores can mask considerable variation across service contact points and patient segments, which is precisely the variation this study seeks to expose by computing the CSI separately for BPJS and non-BPJS outpatients (Nugraha et al., 2025; Suwandi et al., 2025).

Importance Performance Analysis (IPA) as an Evaluation Tool

Importance Performance Analysis, originally developed by Martilla and James (1977) for the automobile-service industry, plots each service attribute on a two-dimensional matrix according to its perceived performance (X-axis) and its perceived importance (Y-axis), producing four quadrants that managers can use to allocate improvement resources (J. Supranto, 2018). Quadrant A ("concentrate here"/top priority) identifies attributes that patients consider highly important but that are performing poorly; Quadrant B ("keep up the good work") identifies attributes that are both important and well-performed; Quadrant C ("low priority") identifies attributes of lower importance and lower performance; and Quadrant D ("possible overkill") identifies attributes whose performance exceeds their perceived importance. Within the conceptual model of this study, IPA operationalizes the "evaluation" stage that follows the "survey" stage: while the CSI provides an aggregate diagnosis of perceived service quality, IPA disaggregates that diagnosis to the attribute level and links it explicitly to patient expectation, thereby identifying *where* management attention should be directed (Bakhtiar et al., 2025; Wang et al., 2026). Recent applications of IPA in primary-care and hospital settings confirm that complaint-handling, responsiveness, and completion-time attributes are the most frequent occupants of the top-priority quadrant across diverse health systems, lending external validity to the attribute set used in this study (Cai et al., 2025; Değer & İşsever, 2024).

The Service Quality Gap Model as a Strategic Framework

The Service Quality Gap Model, introduced by Parasuraman, Zeithaml, and Berry (1985), conceptualizes the overall quality of a service as the cumulative result of five potential gaps: Gap 1 (the knowledge gap), the discrepancy between what customers expect and what management perceives them to expect; Gap 2 (the policy gap), the discrepancy between management's perception of customer expectations and the service-quality specifications actually established; Gap 3 (the delivery gap), the discrepancy between specifications and actual service delivery; Gap 4 (the communication gap), the discrepancy between service delivery and what is externally communicated to customers; and Gap 5 (the customer gap), the discrepancy between expected and perceived service, which is itself a function of Gaps 1 through 4. Within public-sector health services, Gap 1 is theoretically the most strategically consequential because it represents a *failure of organizational listening*: management designs services based on its own assumptions about what patients need rather than on validated patient expectations (Ali et al., 2024). Recent SERVQUAL-gap studies in hospital and primary-care contexts confirm that negative gap scores, indicating that perceived service falls short of expectation, are pervasive, particularly for tangibility, responsiveness, and

complaint-related dimensions (Karume et al., 2025; Cui et al., 2025; Guzmán-Leguel & Rodríguez-Lara, 2025). For this study, the Gap Model operationalizes the "strategy" stage of the conceptual model: by comparing management's perception of each service element's importance with the expectations expressed independently by BPJS and non-BPJS patients, the model identifies precisely where organizational listening has failed and therefore where strategic intervention should be prioritized.

Public Service Theory and the Primary-Care Context

Because Puskesmas operate as government service units rather than profit-seeking enterprises, the application of customer-satisfaction frameworks must be situated within public-service theory. Osborne's (2020) public-service-logic perspective argues that value in public services is co-created between the provider and the citizen-user, and that the legitimacy of a public organization depends on its responsiveness to citizen expectations rather than solely on internal efficiency metrics. Citizen-satisfaction research in public administration similarly emphasizes that accreditation and other "objective" performance measures often diverge from citizens' subjective evaluations of service quality, underscoring the importance of direct measurement instruments such as the CSI (Lee & Kim, 2024; Kim, Rho, & Teo, 2024). These perspectives justify the integration of a market-derived framework (the Gap Model) with a government-mandated instrument (the CSI) within a single primary-care quality model: both are, at root, mechanisms for closing the distance between what citizens expect from a public service and what that service actually delivers.

Conceptual Framework

Integrating the theoretical perspectives above, this study conceptualizes Puskesmas service quality as a three-stage cycle: (1) **Survey**the Community Satisfaction Index measures the realized perception of service performance among BPJS and non-BPJS outpatients across nine KEMENPAN-RB service elements; (2) Evaluation Importance Performance Analysis compares this performance against patient-stated importance for each element, classifying elements into four priority quadrants; and (3) Strategythe Service Quality Gap Model compares management's perception of element importance against patient expectation (Gap 1), identifying the elements for which strategic re-alignment between management and patients is most urgently required. The conceptual framework is illustrated in Figure 1.

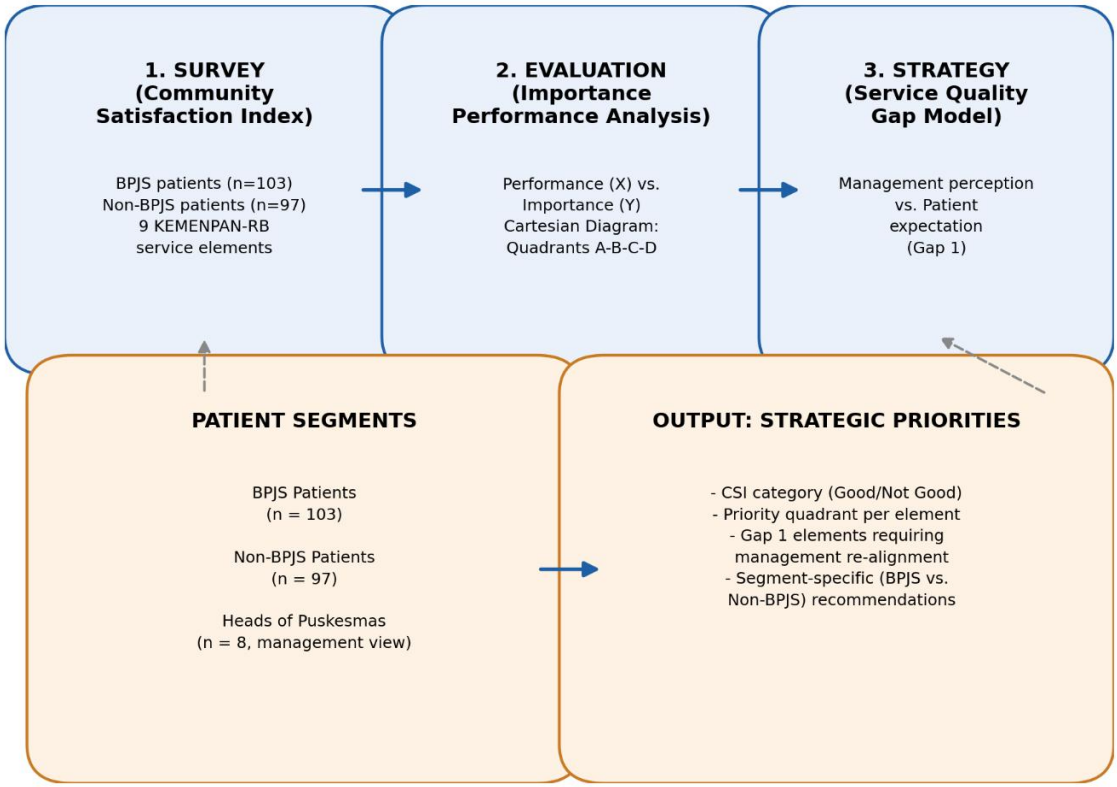


Figure 1. Conceptual Framework: Survey–Evaluation–Strategy Model of Primary Health Service Quality

RESEARCH METHOD

Research Design and Sample

This study employs a quantitative survey-evaluation-strategy design conducted in eight Puskesmas (Community Health Centers) in Banyumas Regency, Central Java, Indonesia. The response rate achieved was 97 percent. Respondents consisted of (1) outpatients, comprising 103 patients who paid using the National Health Insurance scheme (BPJS) and 97 non-BPJS patients, and (2) eight Heads of Puskesmas representing the management perspective. The research instrument measured nine service elements based on the Decree of the Minister of Administrative and Bureaucratic Reform of the Republic of Indonesia No. 14 of 2017 (KEMENPAN-RB/14/2017) concerning Guidelines for Preparing the Community Satisfaction Index for Government Agency Service Units: (1) requirements, (2) system, mechanism, and procedure, (3) completion duration, (4) cost/tariff, (5) product specification according to the type of service, (6) competence of implementers, (7) behavior of implementers, (8) handling of complaints, suggestions, and input, and (9) infrastructure and facilities.

Instrument Test

A validity and reliability test was conducted on all nine elements of reality (performance) and nine elements of expectation (importance) prior to the main analysis (Sürücü & Maslakci, 2020). All items were found valid and reliable and were therefore retained as data-collection instruments for the subsequent analyses.

Community Satisfaction Index (CSI)

The CSI value is calculated using a weighted-average approach. Because all nine service elements are given equal weight, the weighting value for each element equals 1 divided by the number of elements (1/9 = 0.11). For each element, the Perceived Value per Element is divided by the total number of respondents to obtain the average perception score, which is then multiplied by the weighting value to yield the elemental CSI contribution; summing these contributions across the nine elements yields the overall weighted CSI (RI 14, 2017). To facilitate interpretation, the resulting value, ranging between 1.00 and 4.00, is converted to a base-25 scale by multiplying by 25, producing an index between 25.00 and 100.00, which is then categorized as shown in Table 1 (RI 14, 2017).

Table 1. Perception Value, CSI Interval, Conversion Interval, Service Quality, and Service Unit Performance

Perception Value	CSI Interval	Conversion Interval CSI	Service Quality	Service Unit Performance
1	1.00 – 2.59	25.00 – 64.99	D	Poor
2	2.60 – 3.06	65.00 – 76.60	C	Not Good
3	3.06 – 3.53	76.61 – 88.30	B	Good
4	3.53 – 4.00	88.31 – 100.00	A	Very Good

Importance Performance Analysis (IPA)

IPA compares the performance score (X) provided by the Puskesmas with the importance score (Y) expected by patients, using the conformity-level formula Tki = (Xi/Yi) × 100%, where Xi is the performance assessment score, and Yi is the importance assessment score (J. Supranto, 2018). The overall mean performance ($\bar{X}$) and mean importance ($\bar{Y}$) scores serve as the dividing axes of a Cartesian diagram, which classifies each of the nine elements into Quadrant A (top priorityhigh importance, low performance), Quadrant B (maintain achievementhigh importance, high performance), Quadrant C (low prioritylow importance, low performance), or Quadrant D (excessivelow importance, high performance), with conformity scores interpreted using the criteria in Table 2 (J. Supranto, 2018).

Table 2. Criteria for Assessment of IPA Attributes

Score (in %)	Service Quality Performance
0 – 34	Poor
35 – 50	Not Good
51 – 65	Good Enough
66 – 80	Good
81 – 100	Very Good

Service Quality Gap Model

The Service Quality Gap Model identifies the discrepancy between expected and perceived service quality (Parasuraman, Zeithaml, & Berry, 1985). This study focuses on Gap 1, the knowledge gap, which is computed as the conformity level between management's expectation score for each

element and the corresponding patient-expectation scores of BPJS and non-BPJS patients, expressed as a percentage.

RESULT AND DISCUSSION

Sample

The response rate in this study was 97%. Respondents consisted of (1) outpatients at 8 Puskesmas, comprising 103 BPJS-financed patients and 97 non-BPJS patients, and (2) 8 Heads of Puskesmas in Banyumas Regency.

Instrument Test

The validity test of the questionnaire covers nine elements of reality (performance) and nine elements of anticipation (importance). The computation results demonstrate that all items are valid and reliable. Thus, all elements can be used as data-collection instruments for the subsequent survey, evaluation, and strategy analyses.

The Community Satisfaction Index (CSI)

The CSI calculation is differentiated based on participation in the Social Security Organizing Agency for Health (BPJS) and non-BPJS payment status.

Table 3. Calculation of CSI for BPJS Patients

Elements*	Perceived Value per Element (1)[a]	Total Respondents (2)[b]	(3) = (1)/(2)	Weight (4)	CSI (3)×(4)
Requirements	335	103	3.25	0.11	0.36
System	324	103	3.15	0.11	0.35
Completion duration	297	103	2.88	0.11	0.32
Cost/tariff	324	103	3.15	0.11	0.35
Product specification	349	103	3.39	0.11	0.37
Competence of implementers	331	103	3.21	0.11	0.35
Behavior of implementers	337	103	3.27	0.11	0.36
Complaint handling	316	103	3.07	0.11	0.34
Infrastructure and facilities	360	103	3.50	0.11	0.38
Total					3.18

Perceived Value per Element: total of respondents' answers per element multiplied by the corresponding score.
Total Respondents: number of respondents.
Based on Table 3, the CSI value for BPJS patients = 3.18 × 25 = 79.38. Referring to Table 1, this value falls within the Good (B) interval category.

Table 4. Calculation of CSI for Non-BPJS Patients

Elements*	Perceived Value per Element (1)	Total Respondents (2)	(3) = (1)/(2)	Weight (4)	CSI (3)×(4)
Requirements	305	97	3.14	0.11	0.35
System	302	97	3.11	0.11	0.34
Completion duration	272	97	2.80	0.11	0.31
Cost/tariff	297	97	3.06	0.11	0.34
Product specification	312	97	3.22	0.11	0.35
Competence of implementers	303	97	3.12	0.11	0.34
Behavior of implementers	306	97	3.15	0.11	0.35
Complaint handling	290	97	2.99	0.11	0.33
Infrastructure and facilities	343	97	3.54	0.11	0.39
Total					3.10

Based on Table 4, the CSI value for non-BPJS patients = 3.10 × 25 = 77.40. Referring to Table 1, this value also falls within the **Good (B)** interval category.

Table 5. Summary of CSI Results

Treatment Financing	CSI	Result
BPJS	79.38	Good
Non-BPJS	77.40	Good

Based on Table 5, the Community Satisfaction Index for both BPJS and non-BPJS treatment financing falls within the Good category, indicating that the Puskesmas in Banyumas Regency provide good-quality service overall.

Calculation of Importance Performance Analysis (IPA)

BPJS Patients

Table 6. Calculation of the Conformity Level of BPJS Patients

Element	Performance Xi	n	Average	Expectation Yi	n	Average	Conformity Level (%)
Requirements	335	103	3.25	345	103	3.35	97.10
System	324	103	3.15	338	103	3.28	95.86
Completion duration	297	103	2.88	336	103	3.26	88.39
Cost/tariff	324	103	3.15	349	103	3.39	92.84
Product specification	349	103	3.39	356	103	3.46	98.03
Competence	331	103	3.21	356	103	3.46	92.98
Behavior	337	103	3.27	356	103	3.46	94.66
Complaint handling	316	103	3.07	344	103	3.34	91.86
Infrastructure	360	103	3.50	368	103	3.57	97.83
Total	2,973		28.86	3,148		30.56	
Average score			3.21			3.40	

Based on Table 6, the average performance score provided by Puskesmas to BPJS patients is 3.21, while the average expectation score is 3.40. Because performance is lower than expectation, the conformity level of all elements is below 100%, indicating that overall Puskesmas performance for BPJS patients has not yet fully matched patient expectations.

Table 7. Cartesian Diagram Conclusion for BPJS Patients

No.	Element	Performance ($\bar{X}$)	Expectation ($\bar{Y}$)	Quadrant
1	Requirements	3.25	3.35	D
2	System	3.15	3.28	C
3	Completion duration	2.88	3.26	C
4	Cost/tariff	3.15	3.39	C
5	Product specification	3.39	3.46	B
6	Competence	3.21	3.46	B
7	Behavior	3.27	3.46	B
8	Complaint handling	3.07	3.34	C
9	Infrastructure	3.50	3.57	B

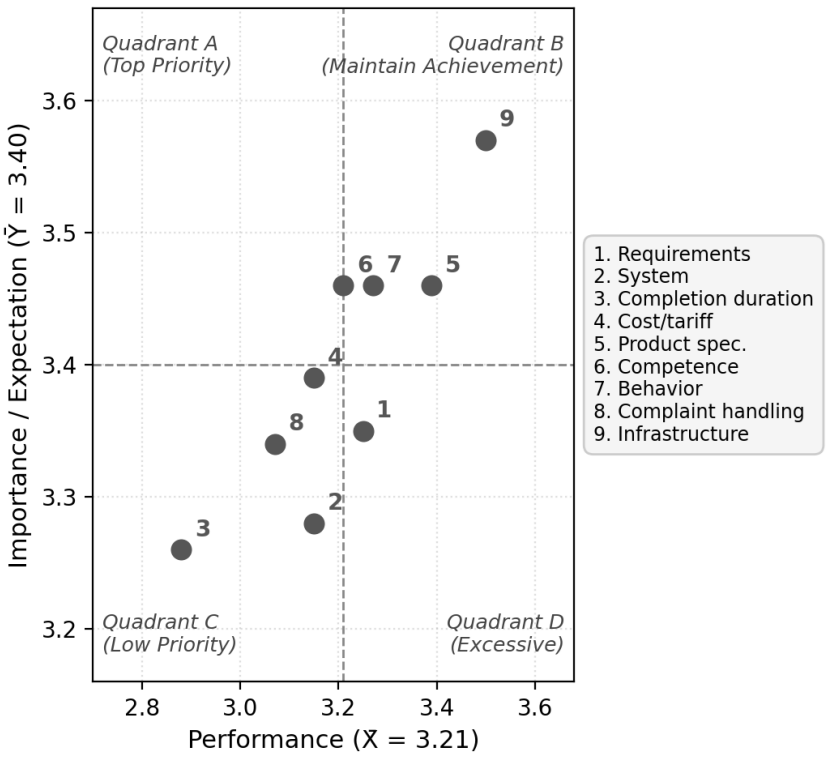


Figure 2. Cartesian Diagram of BPJS Patients

Based on Table 7 and Figure 2, elements 5, 6, 7, and 9 fall in Quadrant B (maintain achievement), indicating fundamental service components that the Puskesmas have effectively implemented and that should be preserved, as patients regard them as both highly important and satisfying. Elements 2, 3, 4, and 8 fall in Quadrant C (low priority), indicating aspects considered less important by the community and whose implementation by the Puskesmas is only average, viewed as inadequate but not critical. Element 1 falls in Quadrant D (excessive), indicating that although this element is less significant for community satisfaction, its implementation is considered more than sufficient.

Non-BPJS Patients

Table 8. Calculation of the Conformity Level of Non-BPJS Patients

Element	Performance Xi	n	Average	Expectation Yi	n	Average	Conformity Level (%)
Requirements	305	97	3.14	331	97	3.41	92.15
System	302	97	3.11	317	97	3.27	95.27
Completion duration	272	97	2.80	339	97	3.49	80.24
Cost/tariff	297	97	3.06	333	97	3.43	89.19
Product specification	312	97	3.22	339	97	3.49	92.04
Competence	303	97	3.12	350	97	3.61	86.57
Behavior	306	97	3.15	354	97	3.65	86.44
Complaint handling	290	97	2.99	345	97	3.56	84.06
Infrastructure	343	97	3.54	345	97	3.56	99.42
Total	2,730		28.14	3,053		31.47	
Average score			3.13			3.50	

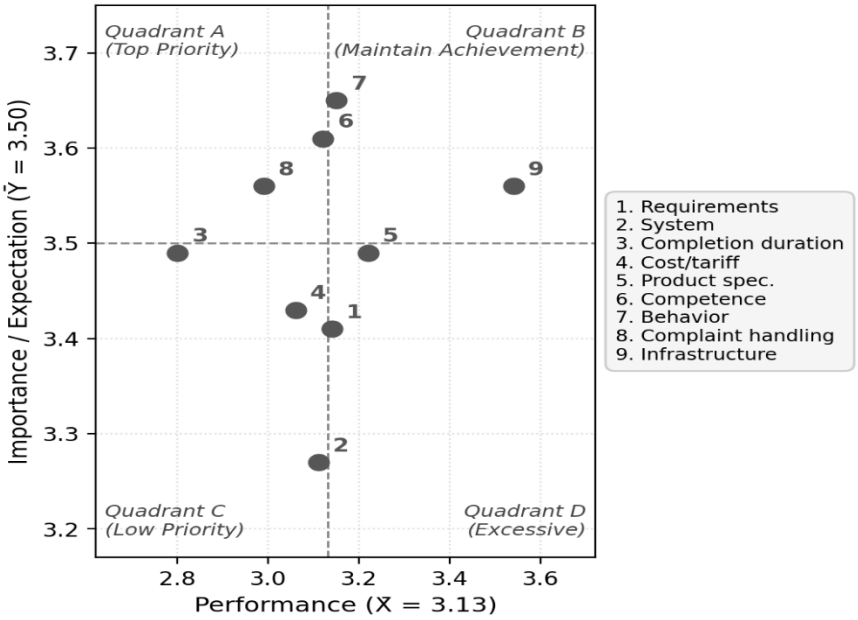
Table 8 shows that the average expectation score of non-BPJS patients (3.50) considerably exceeds the average performance score (3.13), indicating that Puskesmas' performance for non-BPJS patients has not met patient expectations, with a wider gap than that observed for BPJS patients.

Table 9. Cartesian Diagram Conclusion for Non-BPJS Patients

No.	Element	Performance ($\bar{X}$)	Expectation ($\bar{Y}$)	Quadrant
1	Requirements	3.14	3.41	D
2	System	3.11	3.27	C
3	Completion duration	2.80	3.49	C
4	Cost/tariff	3.06	3.43	C
5	Product specification	3.22	3.49	D
6	Competence	3.12	3.61	B
7	Behavior	3.15	3.65	B
8	Complaint handling	2.99	3.56	A
9	Infrastructure	3.54	3.56	B

Figure 3. Cartesian Diagram of Non-BPJS Patients

Based on Table 9 and Figure 3, element 8 (complaint handling) falls in Quadrant A (top priority), indicating an essential service component that management has not implemented in line



with patient preferences and that requires immediate attention. Elements 6, 7, and 9 fall in Quadrant B (maintain achievement), representing service elements that have been successfully implemented and regarded as both important and satisfying. Elements 2, 3, and 4 fall in Quadrant C (low priority), considered less important and only averagely implemented. Elements 1 and 5 fall in Quadrant D (excessive), considered less important for community satisfaction but implemented more than sufficiently.

The Calculation of the Service Quality Gap Model

The Service Quality Gap Model identifies the discrepancy between expected and perceived service quality (Parasuraman, Zeithaml, & Berry, 1985). Perceived service refers to the service that patients actually experience as provided by Puskesmas management. This study focuses on Gap 1, the knowledge gap, which arises from the discrepancy between patients' expectations and management's perception of those expectations.

Table 10. Results of the Gap Analysis between Management Perception and Patient Expectation

Element	Management Expectation	BPJS Patient Expectation	Non-BPJS Patient Expectation	Conformity Level (%) BPJS[a]	Conformity Level (%) Non-BPJS[b]
Requirements	3.25	3.35	3.41	97.03	95.24
System	3.75	3.28	3.27	114.28	114.75
Completion duration	3.38	3.26	3.49	103.46	96.57
Cost/tariff	3.38	3.39	3.43	99.61	98.31

Product specification	3.75	3.46	3.49	108.50	107.30
Competence	3.50	3.46	3.61	101.26	97.00
Behavior	3.50	3.46	3.65	101.26	95.90
Complaint handling	3.50	3.34	3.56	104.80	98.41
Infrastructure	4.00	3.57	3.56	111.96	112.46

Conformity of BPJS patients = Management expectation / BPJS patient expectation × 100%.

Conformity of non-BPJS patients = Management expectation / Non-BPJS patient expectation × 100%.

Based on Table 10, for BPJS patients, elements 1 (requirements) and 4 (cost/tariff) show a conformity level below 100%, indicating that management's perception of the importance of these elements is *lower* than what BPJS patients actually expect. Gap 1 discrepancy. For non-BPJS patients, elements 1, 3, 4, 6, 7, and 8 (requirements, completion duration, cost/tariff, competence, behavior, and complaint handling) show conformity levels below 100%, indicating that management's perception is lower than non-BPJS patient expectations across a substantially wider set of elements.

Discussion of the Survey Results (CSI)

Public service-delivery units must align with community expectations in service delivery alongside technical and procedural advancement. The Community Satisfaction Survey on Public Service Delivery Units uses standardized indicators and survey procedures, and Puskesmas, as health-service providers under the District Health Office, are required to conduct such surveys at least once a year. The CSI in this study is differentiated by participation in BPJS and non-BPJS payment schemes. Based on the calculation, both patient groups gave a "Good" category assessment of the Puskesmas (Nugraha et al., 2025), indicating that the Puskesmas have provided a standard level of service to their patients (Suwandi et al., 2025). This finding is consistent with national-level evidence that aggregate satisfaction indices for BPJS-financed primary care tend to be favorable (Bakhtiar et al., 2025).

Discussion of the Evaluation Results (IPA)

Puskesmas' performance for BPJS patients does not fully meet patient expectations, as reflected in conformity levels below 100% across all nine elements (Table 6). Nevertheless, the Cartesian diagram shows no element falling into the top-priority quadrant (Quadrant A) for BPJS patients (Karume et al., 2025). Elements related to product specification, competence, and behavior of doctors, nurses, and staff, and infrastructure and facilities fall into Quadrant B and must therefore be maintained (Değer & İşsever, 2024), indicating that the Puskesmas has successfully implemented its fundamental services (Guzmán-Leguel & Rodríguez-Lara, 2025). For BPJS patients, the elements of the system, completion duration, cost/tariff, product specification, and complaint handling fall into the low-priority category (Quadrant C), meaning these elements are considered less influential on community satisfaction and are implemented only at an average level. The requirements element falls into Quadrant D (excessive), indicating that although this element is less significant for BPJS patients, the Puskesmas implements it more than sufficiently.

For non-BPJS patients, Puskesmas' performance also does not meet patient expectations, with a wider gap than for BPJS patients (Table 8). The most important finding is that complaint handling, addressing grievances, suggestions, and input falls into Quadrant A (top priority) for non-BPJS patients, indicating an essential service component that management has not implemented in line with the preferences of this patient segment. Meanwhile, the elements of competence, behavior, and infrastructure fall into Quadrant B and must be maintained. The elements of system, completion duration, and cost/tariff fall into the low-priority category (Quadrant C), considered less important and implemented only at an average level. According to non-BPJS patients, the product specification element falls into Quadrant D (excessive), considered less important but implemented more than sufficiently.

Discussion of the Strategy Results (Service Quality Gap Model)

To ensure that the entire service-delivery process functions effectively and efficiently, the Service Quality Gap Model maps the process and identifies any gaps within it (Ali et al., 2024), assisting Puskesmas management in pinpointing inefficiencies in service provision (Endalamaw et al., 2023). Based on the comparison between BPJS patient expectations and management perceptions (Table 10), a gap is found in the requirements and cost/tariff elements. This indicates that, for these two elements, what BPJS patients consider important is not matched by management's perception of

their importance. This is largely structural: as a public-service provider, all service tariffs in Puskesmas are determined by the Banyumas local government, and Puskesmas are not permitted to levy additional charges on patients, limiting management's discretion to act on this element even where a gap exists.

For non-BPJS patients, the gaps identified are broader, encompassing requirements, completion duration, cost/tariff, competence and behavior of implementers, and complaint handling. Non-BPJS patients pay for treatment directly out-of-pocket without insurance coverage, and this direct financial exposure leads them to compare more critically what they have paid against what they receive, producing higher expectations than those of BPJS patients (Akanyako, 2024; Singh, Hidayat, & Purnamaningsih, 2025). The wider set of Gap 1 discrepancies for non-BPJS patients suggests that Puskesmas management's internal assumptions about patient priorities are considerably less aligned with the actual expectations of self-paying patients than with those of insured patients.

DISCUSSION

This study set out to examine whether the global and national concerns raised in the Introduction, namely, the persistent gap between primary-care performance and patient expectation, and the heterogeneity of that gap across financing segments, are empirically observable in an Indonesian Puskesmas setting. The findings provide strong support for both concerns, while also nuancing the picture in ways that extend the existing literature.

Confirming the Survey-Level Issue: "Good" Aggregate Scores Coexist with Unmet Expectations

The Introduction noted that global reviews of primary health care report improving structural indicators alongside persistently weak responsiveness to patient expectations (Endalamaw et al., 2023). The CSI results in this study reproduce exactly this pattern at the facility level: both BPJS (79.38) and non-BPJS (77.40) patients rate the Puskesmas in the "Good" category, a result consistent with national BPJS satisfaction surveys that report consistently favorable aggregate indices (Nugraha et al., 2025) and with facility-level Indonesian studies that similarly classify Puskesmas service quality as good (Bakhtiar et al., 2025). Yet the IPA conformity-level analysis (Tables 6 and 8) shows that performance falls short of expectation for *every one of the nine elements*, for both patient groups. This apparent paradox "Good" aggregate index alongside universally negative conformity gaps mirrors findings from SERVQUAL-gap studies in other primary-care contexts, where overall quality is judged "moderate" to "good" even though every individual dimension exhibits a negative expectation–perception gap (Wang et al., 2026; Karume et al., 2025). The explanation lies in the construction of the CSI itself: because the index measures *perceived performance in absolute terms* rather than performance *relative to expectation*, it can register a favorable score even when patients simultaneously feel that the service does not fully meet what they hoped for. This confirms the theoretical proposition, drawn from Expectation–Disconfirmation Theory, that perceived-performance measures and expectation-referenced measures answer fundamentally different questions and should be reported together rather than as substitutes (Oliver, 1980; Kotler & Keller, 2016; Ferreira et al., 2023).

Confirming the Evaluation-Level Issue: Complaint Handling as a Recurring "Negative" Empirical Pattern

The Introduction identified a negative empirical pattern in which complaint-handling and completion-time attributes recurrently fall into the top-priority quadrant of IPA studies (Bakhtiar et al., 2025). The results strongly confirm this pattern for non-BPJS patients, for whom "addressing grievances, suggestions, and input" is the *only* element occupying Quadrant Athe single most urgent priority for management attention. This finding aligns closely with recent evidence that complaint-management mechanisms are a decisive lever for improving perceived quality in primary and grassroots health facilities: a study of complaint-management reform in Chinese grassroots hospitals found that systematizing complaint handling directly increased patient and family satisfaction and reduced recurrence of the same complaints (Li, Chen, & Lou, 2024), while a sentiment-analysis study of hospital complaints found that, as basic-service complaints decline, patient expectations shift toward higher-order concerns such as communication clarity and responsivenessprecisely the dimensions captured by the "behavior of implementers" element in this study (Cui et al., 2025).

Interestingly, for BPJS patients, no element falls into Quadrant A at all, even though the conformity level for completion duration (88.39%) is the lowest among the nine elements. This suggests that BPJS patients, who do not bear the direct financial cost of the service, may *tolerate* lower performance on certain elements without elevating them to "must-fix" status, a pattern

consistent with findings that financing arrangement moderates the relationship between perceived performance and dissatisfaction (Wulandari et al., 2023; Akanyako, 2024). For non-BPJS patients, by contrast, the same completion-duration element (conformity level 80.24%, the lowest of all eighteen element-segment combinations in this study) falls only into the low-priority Quadrant C, not because patients consider it unimportant in absolute terms, but because, relative to the even larger gap on complaint handling, it is comparatively less salient. Read together, these results substantiate the methodological gap noted in the Introduction: studies that examine IPA quadrants without disaggregating by financing segment risk average away precisely the differences that matter most for targeted policy.

Confirming the Strategy-Level Issue: Gap 1 Is Wider and Broader for Non-BPJS Patients

The Introduction argued that very few studies extend Gap-Model analysis to Gap 1 (the management-perception gap) and fewer still compare it across patient segments (Ali et al., 2024; Guzmán-Leguel & Rodríguez-Lara, 2025). The Gap 1 results in Table 10 directly address this gap in the literature and produce a clear, policy-relevant finding: management's perception of patient priorities diverges from BPJS patients' actual expectations on only 2 of 9 elements (requirements and cost/tariff), but diverges from non-BPJS patients' expectations on 6 of 9 elements (requirements, completion duration, cost/tariff, competence, behavior, and complaint handling). This threefold difference in the breadth of Gap 1 between the two segments is, to the authors' knowledge, not previously documented in the Indonesian Puskesmas literature, and it provides empirical substance to the theoretical claim that Gap 1 represents an "organizational listening failure" (Ali et al., 2024): Puskesmas management appears to have internalized a mental model of patient priorities that approximates the priorities of insured patients far more closely than those of self-paying patients.

This finding resonates with the broader public-administration literature on the divergence between objective performance measures and citizens' subjective evaluations (Lee & Kim, 2024; Kim, Rho, & Teo, 2024): because BPJS patients constitute the numerically larger and institutionally more "visible" segment (their satisfaction is also tracked through the national BPJS survey infrastructure; Nugraha et al., 2025), management's quality-improvement efforts may be implicitly calibrated toward this segment, leaving the expectations of the smaller, less institutionally visible non-BPJS segment comparatively unaddressed. This is consistent with Osborne's (2020) public-service-logic argument that the legitimacy of a public service depends on responsiveness to *all* citizen-users, not only those whose feedback is most readily aggregated through formal reporting channels.

The Structural Constraint on Cost/Tariff Gaps

For both patient segments, the cost/tariff element shows a Gap 1 discrepancy (BPJS: 99.61%; non-BPJS: 98.31%), although the magnitude is modest compared with other elements. As discussed in Section 4.8, this is best explained not as a failure of management attention but as a structural constraint: tariffs at Puskesmas are set centrally by the Banyumas local government, leaving management with little discretion to respond even where patient expectations diverge from management perception. This structural explanation is consistent with public-service theory's emphasis on the constrained autonomy of public-sector frontline organizations relative to private-sector service providers (Osborne, 2020) and suggests that, for this particular element, strategic intervention should be directed upward toward the policymaking level rather than toward Puskesmas management itself.

Synthesis

Taken together, the survey, evaluation, and strategy results converge on a single, consistent strategic narrative: Puskesmas in Banyumas Regency deliver a service that is "Good" in absolute terms but falls short of patient expectations on every measured element; this shortfall is most acute, and most consequential, for non-BPJS patients, particularly with respect to complaint handling, completion duration, and the competence and behavior of implementers; and the root cause, as revealed by Gap 1, is a misalignment between management's internal model of patient priorities and the priorities actually held by self-paying patients. This synthesis both confirms the issues raised in the Introduction and extends them by demonstrating through the integrated CSI–IPA–Gap Model design that constitutes this study's primary contribution that the same primary-care system can simultaneously be "performing well" by one accepted standard (CSI) and "failing to listen" by another (Gap 1), depending on which patient segment and which analytical lens is applied.

CONCLUSION, IMPLICATIONS, AND LIMITATIONS

Conclusions

This study evaluated the quality of primary health care at eight Puskesmas in Banyumas Regency through an integrated survey-evaluation-strategy model. Three main conclusions can be drawn. First, the Community Satisfaction Index for both BPJS patients (79.38) and non-BPJS patients (77.40) falls within the "Good" category, indicating that Puskesmas have achieved a reasonable baseline of perceived service quality. Second, the Importance Performance Analysis shows that no element falls into the top-priority quadrant for BPJS patients, whereas for non-BPJS patients, complaint handling, addressing grievances, suggestions, and input is the single top-priority element requiring immediate management attention. Third, the Service Quality Gap Model reveals that management's perception of patient priorities (Gap 1) diverges from BPJS patient expectations on the requirements and cost/tariff elements only, but diverges from non-BPJS patient expectations on a substantially broader set of elements: requirements, completion duration, cost/tariff, competence, behavior of implementers, and complaint handling.

Managerial Implications

These findings carry direct implications for Puskesmas management in Banyumas Regency and, by extension, for similar primary-care facilities operating dual-financing schemes. Management should open more accessible channels through which patients, particularly non-BPJS patients, can express dissatisfaction, complaints, and suggestions, since this element constitutes the top strategic priority. Concurrently, management should re-examine its internal assumptions about patient priorities, given the demonstrated divergence between management perception and non-BPJS patient expectation across six service elements, with particular attention to strengthening the competence and service behavior of implementers and to improving completion-time efficiency. Where gaps relate to cost/tariff, advocacy toward the local government, rather than internal operational change, is the more appropriate strategic channel, given the centrally determined nature of Puskesmas tariffs.

Limitations and Future Research

This study faces limitations of scope and generalizability. The scope is confined to government primary-care facilities (Puskesmas) within a single regency, and the sample does not capture patients who, dissatisfied with primary-level services, bypass Puskesmas entirely in favor of higher-level facilities. Future research is recommended to replicate this integrated CSI–IPA–Gap Model design across multiple regencies and facility types, to extend the Gap Model analysis beyond Gap 1 to Gaps 2 through 5, and to examine the temporal stability of the BPJS/non-BPJS divergence documented here using longitudinal designs.

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