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Strategic Approaches to Improving Service Quality at Hospital

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Abstract:

This study aims to formulate strategic recommendations for enhancing the service quality of RSUD Ciawi. Despite its strategic location and status as a primary referral center in Bogor Regency, RSUD Ciawi faces critical internal challenges, evidenced by low compliance rates with several National Quality Indicators (INM) (Permenkes No. 30/2022) and persistent public complaints regarding service responsiveness and reliability. This research employs a qualitative descriptive case study method utilizing SWOT analysis (Input, Matching, and Decision stages) and the SERVQUAL model dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) to identify influencing factors and define actionable strategies. Key data were collected through interviews with key informants and document analysis. The findings reveal a critical lack of staff compliance in crucial clinical protocols, notably Hand Hygiene (53%–69% compliance), Use of Personal Protective Equipment (APD) (65%–81%), and Adherence to Clinical Pathways (25%–49%). Systemic weaknesses also include complicated administrative processes for emergency procedures (C-Section) and capacity limitations (inpatient beds). The resultant strategy focuses on integrated digitalization (RME/Clinical Pathway), strict disciplinary enforcement, and simplification of emergency service procedures to mitigate financial and reputational risks.

Keywords : *Service Quality, Hospital Management Strategy, Clinical Protocol Compliance, SWOT Analysis, Regional Public Hospital, SERVQUAL.*

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1. Introduction

Public health represents a vital foundation for national progress, economic stability, and social welfare. As emphasized in Indonesia's national development agenda, health quality is a core indicator of social equity and human capital productivity. The government's role in ensuring equitable access to quality healthcare is realized through the operation of Regional Public Hospitals (RSUD), which serve as the backbone of the public health service network. RSUD Ciawi, strategically located in Bogor Regency, West Java, functions as a primary referral hospital offering comprehensive services including outpatient, inpatient, and emergency care. It records the highest patient volume among the four public hospitals in the regency and aims to

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evolve into a Class B Education Hospital that integrates service, education, and research excellence.

Despite its strategic importance, RSUD Ciawi faces challenges in maintaining consistent service quality and patient satisfaction. Recent observations reveal a discrepancy between patient volume and satisfaction outcomes. Public reviews on online platforms such as Google Maps (July 2025) indicate recurrent complaints concerning slow responsiveness, long waiting times, and perceived lack of empathy among staff. Moreover, financial reports from 2024 show declining revenue realization, suggesting systemic inefficiencies in service management. These challenges mirror broader issues faced by regional hospitals in Indonesia, where quality gaps often emerge from human resource constraints, administrative complexity, and limited technological adaptation (Hasanah et al., 2023; Yuarsa et al., 2021).

National Quality Indicators (*Indikator Nasional Mutu* or INM), mandated under *Permenkes No. 30/2022*, provide a standardized benchmark for assessing hospital performance across safety, responsiveness, and clinical outcomes. However, data from RSUD Ciawi indicate that several INM targets remain underachieved, particularly regarding compliance with hand hygiene, use of personal protective equipment (PPE), and adherence to clinical pathways. Studies show that compliance in hand hygiene among healthcare workers is a persistent global issue, with average adherence rates ranging between 50–70%, compromising patient safety and infection control (Armstrong-Novak et al., 2023; Alshagrawi et al., 2024). Similar patterns of non-compliance have been linked to low institutional discipline, inadequate supervision, and insufficient organizational culture of safety (Rusdi & Sjaaf, 2023).

Moreover, the complexity of administrative processes, particularly in emergency surgical procedures such as C-sections, further constrains responsiveness and efficiency. Rusdi and Sjaaf (2023) emphasized that delayed emergency operations often result from procedural bottlenecks, poor interdepartmental coordination, and insufficient digital integration. In RSUD Ciawi, such inefficiencies translate into extended waiting times, reduced service throughput, and higher patient dissatisfaction. These findings highlight an urgent need for operational streamlining and digital process integration within hospital workflows to improve both responsiveness and clinical performance.

In the era of digital transformation, healthcare institutions are increasingly adopting information technology to improve efficiency and service quality. The integration of Hospital Management Information Systems (SIMRS) and Electronic Medical Records (EMR) has been shown to enhance accuracy, data accessibility, and decision-making processes (Wahyuni et al., 2025). International evidence supports that digital transformation significantly influences the effectiveness and quality of inpatient care (Koebe et al., 2023; Mauro et al., 2024; Stoumpos & Vrahatis, 2023). However, successful implementation requires supportive infrastructure, adequate staff

competence, and strong leadership commitment—factors that are often lacking in developing-country hospital settings, including regional hospitals in Indonesia.

Another dimension of quality lies in the human aspect of healthcare delivery. The SERVQUAL framework identifies five key determinants of perceived service quality: tangibles, reliability, responsiveness, assurance, and empathy. In Indonesia, several studies have confirmed that gaps in these dimensions directly affect patient satisfaction and loyalty (Khairunnisa, 2022; Hasanah et al., 2023). For instance, inadequate communication, poor service responsiveness, and lack of empathy among hospital staff have been found to significantly reduce trust and satisfaction levels. In comparison, hospitals that invest in staff motivation, discipline, and service training demonstrate higher quality scores and patient retention rates (Yuarsa et al., 2021; Begum et al., 2022).

Despite the growing body of literature on hospital service quality, few studies have comprehensively analyzed the interplay between human factors, clinical compliance, and digital transformation within a regional public hospital context. Most prior research focuses on either patient satisfaction surveys or specific operational aspects such as emergency delays or information system performance, without linking these elements into an integrated strategic framework (Khairunnisa, 2022; Wahyuni et al., 2025; Rusdi & Sjaaf, 2023). This gap underlines the need for a holistic approach that considers both behavioral and systemic determinants of service quality, particularly in high-volume referral hospitals like RSUD Ciawi.

The present study addresses this research gap by employing the SERVQUAL model alongside SWOT analysis to identify internal and external factors affecting service quality at RSUD Ciawi. This dual approach enables the formulation of actionable strategies grounded in both empirical performance data and stakeholder perceptions. Specifically, the research aims to answer two questions: (1) What factors influence the quality of health services at RSUD Ciawi, Bogor Regency? and (2) What strategic actions can be implemented to enhance service quality and compliance with national standards? The findings are expected to guide RSUD Ciawi in developing systematic quality improvement policies and digital innovation pathways.

The urgency and novelty of this research lie in its integrated analytical framework that combines service quality dimensions, clinical compliance indicators, and digital transformation factors in a single case study. Unlike previous studies that examined these elements separately, this study provides a unified strategy blueprint that aligns technological modernization with human resource development and quality governance. Ultimately, the study contributes to the growing academic discourse on hospital service improvement and offers practical insights for policymakers and administrators striving to elevate healthcare standards across Indonesia's regional hospitals (Begum et al., 2022; Stoumpos & Vrahatis, 2023; Mauro et al., 2024).

2. Theoretical Background

Hospital Service Quality and the SERVQUAL Framework
Service quality in healthcare institutions has become a core focus of hospital management research due to its direct link with patient satisfaction, trust, and institutional reputation. The SERVQUAL model—comprising tangibles, reliability, responsiveness, assurance, and empathy—remains one of the most effective tools for assessing service gaps between patient expectations and actual performance (Jonkisz et al., 2021). Recent studies have reaffirmed SERVQUAL's relevance in hospital settings, showing that reliability and responsiveness are the strongest predictors of satisfaction and loyalty (Nguyen et al., 2021; Alfatafta et al., 2025). Through SERVQUAL, hospitals can identify deficiencies, prioritize quality improvement areas, and align management practices with patient-centered service delivery.

Patient Satisfaction and Perceived Service Experience
Patient satisfaction is a multidimensional construct reflecting perceptions of overall care quality. Begum et al. (2022) discovered that patients in public hospitals report lower satisfaction compared to private institutions due to administrative inefficiencies and delays in responsiveness. Likewise, Sebera et al. (2024) found that satisfaction in district hospitals is strongly influenced by communication clarity, staff attitude, and waiting time. Studies in China also highlight that trust and loyalty stem from consistent service delivery and staff empathy (Shie et al., 2022; Shie & Colleagues, 2022). In emergency departments, satisfaction fluctuates based on operational factors such as arrival time and staffing adequacy, underlining the operational dimension of patient experience (Zitek et al., 2024).

Furthermore, nursing service quality significantly contributes to satisfaction outcomes. Alhussin et al. (2024) reported that coordination among care units and efficient discharge processes greatly enhance perceived quality. Similarly, Cai et al. (2025) demonstrated that a patient's length of stay is directly correlated with SERVQUAL dimensions—particularly reliability and responsiveness—where longer stays often lead to declining satisfaction. These findings underscore that beyond medical competence, interpersonal empathy, and communication quality play decisive roles in shaping patient experiences.

Clinical Compliance and Quality Management
Compliance with clinical standards such as hand hygiene, use of personal protective equipment, and adherence to clinical pathways forms the foundation of hospital quality and patient safety. Armstrong-Novak et al. (2023) found that global hand hygiene compliance among healthcare workers still hovers between 50% and 70%, despite extensive training and monitoring programs. Complementing this, Alshagrawi et al. (2024) identified key determinants of non-compliance in intensive care settings, including high workload, insufficient supervision, and resource constraints.

Clinical pathway adherence is another area critical to ensuring consistent care quality. Houtmann et al. (2023) emphasized that deviations from standardized pathways lead

to inefficiencies and adverse outcomes. Evidence from Sangal et al. (2022) showed that hospitals integrating clinical pathways into their electronic health record (EHR) systems significantly improve compliance with COVID-19 care guidelines. This integration reduces human error and supports real-time decision-making. Meanwhile, Nemati et al. (2020) compared university and non-university hospitals in Iran using the HEALTHQUAL model and found that professional trust and care quality increase when compliance monitoring systems are embedded within hospital management frameworks.

Digital Transformation in Healthcare

Digital transformation represents a fundamental evolution in healthcare delivery, emphasizing efficiency, data integration, and patient-centered innovation. According to Stoumpos and Vrahatis (2023), digitalization reshapes hospital processes through electronic records, big data analytics, and artificial intelligence, leading to higher transparency and faster clinical decisions. Similarly, Koebe et al. (2023) highlighted that digital transformation improves inpatient coordination and reduces treatment delays. Mauro et al. (2024) found that organizational factors—such as leadership commitment and staff digital literacy—strongly influence the success of hospital digitalization initiatives, underscoring the sociotechnical nature of transformation.

In addition, digital tools enhance communication and patient engagement. Elliott et al. (2023) noted that during the COVID-19 pandemic, hospitals that integrated telecommunication and digital feedback mechanisms were able to sustain higher satisfaction levels. De Steenwinkel et al. (2022) further revealed that improved information dissemination through digital channels reduces anxiety and enhances patient trust in emergency departments. Together, these studies suggest that technological integration not only supports efficiency but also strengthens patient-centered care.

Integrating Service Quality, Compliance, and Digitalization

The convergence of service quality frameworks, clinical compliance, and digital transformation represents an emerging paradigm in hospital quality management. Studies by Alfatafta et al. (2025) and Cai et al. (2025) emphasize that hospitals must adopt multidimensional strategies combining SERVQUAL metrics with digital and procedural compliance indicators to achieve sustainable quality improvement. However, integration remains a challenge in many public hospitals, where technological and managerial systems often operate in silos.

Research indicates that successful quality enhancement requires uniting human and technological factors. For instance, Stoumpos and Vrahatis (2023) argue that digital initiatives will fail without strong staff commitment, while Armstrong-Novak et al. (2023) highlight that compliance culture depends on consistent behavioral reinforcement. Thus, the literature reveals a clear need for holistic strategies that combine digitalization, disciplined compliance, and SERVQUAL-based service improvement into a cohesive hospital management framework.

3. Methodology

This study employed a qualitative descriptive case study approach focusing on RSUD Ciawi. This method is suitable for in-depth exploration of real-world contexts, particularly in organizational management and strategy formulation. Data were collected using both primary and secondary sources. Primary Data were obtained through in-depth interviews with key informants chosen via purposive sampling, based on their vital role, expertise, experience, and decision-making capacity regarding service quality improvement at RSUD Ciawi. The informants included internal staff (Directors, Head of Divisions, Quality Assurance Team) and external parties (patients/patient families). The interview guidelines were structured to cover each INM and SERVQUAL dimension, mapping them directly to SWOT factors. Secondary Data included literature reviews (journals, books, theses), institutional documents (employee data, financial reports, performance metrics/INM results), and public reviews (Google Maps reviews)

The analysis followed a three-step process: data collection, data reduction, and data presentation. Data reduction involved categorizing, focusing, and discarding information irrelevant to the research questions. The core of the analysis, the Matching Stage, involved constructing the SWOT Matrix to generate strategic alternatives. The resultant strategies were then validated using the conceptual framework of the Strategic Management cycle (David & David, 2016)

4. Empirical Findings/Result

Identification of Service Quality Factors (INM/SERVQUAL)
The analysis of service quality at RSUD Ciawi employed the widely accepted SERVQUAL model dimensions—Tangibles, Reliability, Responsiveness, Assurance, and Empathy—to organize and interpret data derived from interviews and official documents, primarily focusing on the compliance rates of the National Quality Indicators (INM) as set forth by Permenkes No. 30/2022. This systematic integration provides a robust understanding of the internal weaknesses and strengths that define the current service landscape. The findings reveal that while RSUD Ciawi possesses foundational strengths, significant operational and clinical compliance gaps pose critical threats to patient safety and institutional reputation, underscoring the urgent need for strategic intervention.

The dimension of Tangibles which encompasses the physical appearance of facilities, equipment, personnel, and communication materials—is directly linked to the hospital's core commitment to infection prevention. The hospital benefits from established foundational strengths, including a Solid Infection Prevention and Control (PPI) Committee and the readily available hand washing facilities. However, this physical capacity is nullified by a critical weakness in behavioral compliance: Hand Hygiene Compliance is reported as critically low, ranging from 53% to 69%, falling well short of the mandatory target of ≥85%. This failure is attributed to systemic

issues, including high staff workload, a noticeable lack of direct supervisory feedback, and intermittent logistics delays leading to stock outs of essential hand rub or soap.

This low compliance is not merely an operational oversight; it constitutes a severe regulatory violation under Law No. 17/2023 concerning Health, which mandates safe and quality service. The low adherence to this fundamental protocol exposes the hospital to the significant Threat of increased Healthcare-Associated Infections (HAIs) and subsequent substantial legal and financial risks. Effective quality management dictates that the failure to enforce even the simplest protocols will erode public trust and heighten clinical danger.

Reliability, defined as the ability to perform the promised service dependably and accurately, presents a mixed performance picture. On one hand, the hospital exhibits high performance in the INM concerning Critical Lab Result Reporting, achieving rates between 88% and 92% (close to the 100% target), supported by commendable nurse responsiveness. This demonstrates the capacity for high performance when clear processes are established and consistently followed. However, this success is overshadowed by profound weaknesses in clinical governance.

The most critical finding is the extremely low compliance with the Clinical Pathway (CP), which registers only between 25% and 49% against a target of ≥80%. The primary drivers for this deviation are reported as high workload, a systemic lack of disciplinary enforcement for deviations by Attending Physicians (DPJPs), and poor inter-departmental coordination that causes delays in the transfer of care. Furthermore, challenges related to the supply chain, including distributor issues and inaccurate forecasting, frequently result in stockouts of essential drugs, forcing prescriptions outside the National Formulary. An Inconsistent service delivery severely undermines care Reliability. This dual failure inconsistent adherence to standardized treatment (CP) and reliable drug supply—poses a significant Threat of BPJS claim rejection due to non-standardized care and, more gravely, heightened patient morbidity and mortality risk due to therapy delays and variable patient outcomes.

The Responsiveness dimension measures the willingness of staff to help customers and provide prompt service. The hospital has invested in the necessary organizational structures, notably a strong 24/7 multidisciplinary team and facility availability to handle critical situations, reflected in its Strengths regarding Emergency C-Section Response Time. Yet, the system's effectiveness is crippled by weaknesses in operational flow. Delays are caused by protracted and complicated administrative hurdles (specifically protracted consent processes), a lack of rapid authority delegation for key decisions during night shifts, and delayed initial diagnoses by Emergency Unit (IGD) doctors. These bottlenecks directly violate the "Right Time" principle integral to Permenkes 30/2022.

Furthermore, Outpatient Waiting Time remains a persistent weakness. The root causes are identified as limitations in polyclinic infrastructure capacity during peak hours and overly complex, delayed internal registration processes, exacerbated by inconsistent BPJS data verification. These internal inefficiencies are tactical failures that

undermine the overall service strategy. Without efficient operational flows, the hospital risks losing patient loyalty to competing private facilities that may offer faster, simpler access, turning the hospital's high patient volume into a liability.

Assurance reflects the knowledge and courtesy of employees and their ability to convey trust and confidence. RSUD Ciawi demonstrates a solid Strength in its commitment to the Patient Identification Compliance INM, implementing mandatory two-parameter identification systems (bracelets) and fostering a double-check culture before high-risk procedures. However, the confidence conveyed by staff competence is undermined by pervasive non-compliance in a secondary, yet equally vital, safety protocol.

The Weakness identified is the low overall compliance in the Use of Personal Protective Equipment (APD), which is measured between 65% and 81%. This is worsened by inadequate stock buffers for non-routine APD and concerns over the quality consistency of the supplied equipment. Internal weaknesses in resource management directly amplify external threats. This low APD compliance, coupled with potential inconsistencies in patient identification procedures, poses an unacceptable Threat of Sentinel Events (e.g., wrong-site surgery or transfusion errors) and elevates the risk of HAIs, leading to total reputational damage, financial penalties, and significant legal liability.

The final dimension, Empathy, pertains to the provision of caring, individualized attention. While qualitative data suggests a general kindness and willingness among staff, the most critical issue raised by external stakeholders renders this personal touch moot: the inability to fulfill the fundamental promise of service, which is the availability of inpatient beds. This severe capacity failure, which directly impacts the service promise (Reliability/Empathy overlap), effectively nullifies positive staff interactions and causes profound damage to the overall patient experience. A high-empathy interaction cannot compensate for the failure to deliver the core service, transforming a minor weakness into a crisis of fundamental capability.

Strategies for Enhancing Service Quality at RSUD Ciawi

The service quality at RSUD Ciawi is significantly undermined by critical performance gaps across five core National Quality Indicators (INM), as mandated by Permenkes No. 30/2022. These deficits, particularly in Clinical Pathway (CP) adherence (25%–49% achieved) and Hand Hygiene compliance (53%–69% achieved), expose the hospital to substantial financial risks, such as potential BPJS claim rejection, and severe patient safety threats, including an increased risk of Healthcare-Associated Infections (HAIs).

To rectify the extremely low CP compliance, the strategy must shift from mere documentation to systemic enforcement. This involves mandating the full integration of the Clinical Pathway within the Electronic Medical Record (RME) system, as required by Permenkes No. 24 Tahun 2022. This digital approach is critical for ensuring minimal unwarranted clinical deviation and addressing the need for clear,

measured disciplinary sanctions against Attending Physicians (DPJP) who deviate without valid clinical justification.). The hospital must implement strict, consistent supervision via Direct Observation and real-time feedback, coupled with improved logistics management to ensure the immediate availability and quality of essential APD and hand sanitizers, thereby mitigating the risk of sentinel events and infections

Addressing the hospital's Responsiveness, as defined by the SERVQUAL dimensions, requires streamlining administrative bottlenecks. The critical failure rate in achieving the Emergency C-Section Response Time target (only 41% success rate) necessitates simplifying the administrative and consent procedures. Delegating the authority for rapid consent to the on-site DPJP or Head of Guard during non-working hours eliminates bureaucratic delays that endanger maternal and fetal health. Concurrently, the persistently high Outpatient Waiting Time (exceeding 60 minutes) must be solved through digital transformation. This involves optimizing and enforcing the use of online registration and appointment systems fully integrated with the Hospital Information System (SIK) and BPJS Kesehatan, significantly improving operational efficiency and patient satisfaction.

Table 1. SWOT Strategy

Category	Internal (S & W)	(Opportunities – O) and (Threaths – T) External (O & T)
(Strengths - S)	**S1.** Management commitment to quality and regulatory compliance (Permenkes 30/2022). **S2.** Existence of performance-based policies and direct supervision in service units. **S3.** 24/7 standby medical team/facilities for emergency cases. **S4.** Potential for full integration with Electronic Medical Records (RME) / Hospital Information Management System (SIMRS).	**O1.** Mandates from Law No. 17/2023 & Permenkes No. 24/2022 (RME/SIK) as compulsory regulatory leverage. **O2.** Centralized training programs from the Ministry of Health and collaboration with professional associations **O3.** Trend of digitalization and acceptance of online systems by some users.
(Weaknesses - W)	**W1.** Very low National Quality Indicator (INM) achievement (Clinical Pathway 25%-49%; Emergency C-Section 41%). **W2.** Complex administrative processes (procedure approval) and multilayered bureaucracy. **W3.** Inconsistent logistics stock and quality of Personal Protective Equipment (APD) **W4.** Lack of clear sanctions/policy enforcement against variance without clinical justification. **W5.** Low/suboptimal adoption of online registration.	**T1.** Risk of Adverse Events (KTD) and infection due to low compliance (Hand Hygiene). **T2.** Threat to hospital reputation and image due to long waiting times (Outpatient Waiting Time). **T3.** Increased clinical risk in emergency cases (Cesarean Section). **T4.** Capacity expansion becomes a management focus (diverting focus from INM)

Key Strategies for Service Quality Improvement at Ciawi Regional Public Hospital

The enhancement of the National Quality Indicators (INM) at RSUD Ciawi will be focused on four main strategies that integrate internal strengths with regulatory opportunities while simultaneously addressing existing weaknesses and risks.

SO Strategy (Leveraging Strengths-Opportunities): Acceleration of Quality Digitalization
RSUD Ciawi will utilize the potential for Hospital Information Management System (SIMRS) integration (S4) and the latest regulatory mandates (O1) to accelerate digital adoption. SO-1 Strategy focuses on the full implementation of the integrated Clinical Pathway Module within the Electronic Medical Record (EMR) and mandating Online Registration. This will simultaneously increase clinical compliance and reduce outpatient waiting times.

ST Strategy (Leveraging Strengths-Threats): Protection of Emergency Patients
By having a 24/7 standby team (S3) and a quality commitment (S1), the hospital is in a strong position to mitigate critical emergency clinical risks (T3). The ST-1 Strategy will be used to streamline the bureaucratic approval process for emergency procedures (the rapid consent process for Emergency Caesarean Sections), ensuring that clinical response speed takes precedence over administrative processes.

WO Strategy (Leveraging Weaknesses-Opportunities): Strengthening Logistics and Discipline
To address logistical weaknesses (W3) and low compliance (Hand Hygiene & PPE use), RSUD Ciawi will leverage regulatory support (O1) for standardization and Ministry of Health training programs (O2). WO-1 Strategy focuses on strengthening logistics management for buffer stock and implementing Direct Observation with real-time feedback to improve Human Resources discipline.

WT Strategy (Minimizing Weaknesses-Threats): Enforcement of Clinical Accountability
To avoid the risk of Adverse Events (KTD) and reputation damage (T1, T2) caused by low quality achievement (W1) and lack of sanctions (W4), the WT-1 Strategy will be implemented. This strategy establishes measurable sanctions for the Attending Physicians (DPJP) who deviate from the Clinical Pathway without a valid clinical justification, thereby creating a culture of strict accountability.

Table 2. Action Plan Table

Priority National Quality Indicator (NQI/INM)	Action Pillar	Key Action Plan (Target Q1–Q4 2026)	Performance Indicators (KPI)
Clinical Pathway (CP) Compliance (25%–49%)	Digitalization & Clinical Process; Oversight & Discipline	1. Full implementation of Integrated CP Module within the RME/HIS (Q2). 2. Establishment and enforcement of Disciplinary Sanctions for Attending Physicians (DPJP) with non-justified clinical variance (Q3).	CP achievement increase to ≥60%; 50% decrease in non-justified variance instances.

Outpatient Waiting Time (Persistently >60 minutes)	Digitalization & Clinical Process	1. Mandatory Online Registration via Application/Web integrated with SIK/BPJS systems. 2. Redesign of Service Flow (Triage and Check-in) to reduce physical waiting time (Q1–Q3).	Average waiting time reduced to ≤45 minutes; Percentage of online users reaches ≥70%.
Emergency Cesarean Section Response Time (41%)	Emergency Responsiveness	1. Implementation of Rapid Consent Delegation authority to the On-site Head/DPJP 24/7 (Q1). 2. Routine Emergency Response Simulation and evaluation of bureaucratic bottlenecks (Monthly, Q1–Q4).	Achievement increase to ≥65%; Emergency Procedure Consent Time ≤15 minutes.
Hand Hygiene Compliance (53%–69%)	Oversight & Discipline	1. Direct Observation & Real-time Feedback Program with Reward & Punishment system (Q1–Q4). 2. Strengthening Logistics Management to ensure 100% availability of soap/hand sanitizer (Q1).	Achievement increase to ≥75%; Decrease in Infection Incidents (HAIs).
Personal Protective Equipment (PPE) Usage Compliance (65%–81%)	Oversight & Discipline; Logistics Management	1. Implementation of PPE Quality Control (QC) mechanism upon receipt from the distributor (Q1). 2. Establishment of Non-Routine PPE Buffer Stock with par stock in critical units (Q2). 3. Strict disciplinary enforcement through direct supervision (Q1–Q4).	Achievement increase to ≥85%; Zero complaints regarding PPE quality.

Table above concerning the action plan explains that RSUD Ciawi is fully committed to overcoming challenges in improving the quality of healthcare services as an integral part of fulfilling the mandate of Law Number 17 of 2023 concerning Health and the Principles of Service Quality within Minister of Health Regulation Number 30 of 2022. The extremely low realization of quality indicator achievements, such as Compliance with the Clinical Pathway (CP), Hand Hygiene Compliance, Emergency Caesarean Section Response Time, Compliance with the Use of Personal Protective Equipment (APD), and Outpatient Waiting Time, demands a series of strategic and structured action plans.

5. Discussion

The analysis of service quality at RSUD Ciawi, based on the SERVQUAL dimensions—Tangibles, Reliability, Responsiveness, Assurance, and Empathy—reveals critical insights into both internal and systemic weaknesses that hinder optimal hospital performance. Although the hospital possesses solid infrastructure and a strong Infection Prevention and Control (PPI) Committee, the low hand hygiene

compliance rate (53%–69%) highlights a behavioral rather than infrastructural deficiency. According to Koebe et al. (2023), physical investments in healthcare facilities must be coupled with behavioral and digital compliance mechanisms to ensure sustainable infection prevention outcomes. Similarly, Sofianti and Maulina (2023) emphasize that hospitals with digitalized compliance tracking systems experience higher consistency in hygiene adherence and reduced Healthcare-Associated Infection (HAI) risks. Thus, RSUD Ciawi's tangible readiness loses its impact without behavioral discipline and consistent supervision.

In terms of reliability, the hospital demonstrates commendable performance in specific indicators, such as critical laboratory result reporting, achieving 88%–92% compliance. However, the severe shortfall in Clinical Pathway (CP) compliance (25%–49%) exposes weaknesses in clinical governance and process standardization. Hapsari et al. (2022)and Sari and Widodo (2023) similarly found that poor adherence to standardized clinical pathways undermines service dependability and increases claim rejection risks from insurers. Moreover, Napitupulu et al. (2021) argue that integrating clinical standards within Electronic Medical Record (EMR) systems can significantly reduce deviations, as digital enforcement minimizes discretion in clinical decision-making. Therefore, embedding CP protocols into the EMR and linking them with disciplinary enforcement mechanisms is vital to improving reliability and compliance accountability at RSUD Ciawi.

The responsiveness dimension further reveals operational inefficiencies that compromise patient experience. Although RSUD Ciawi maintains a 24/7 emergency team and adequate facilities, procedural bottlenecks—especially in emergency cesarean sections and outpatient registration—hinder timely care delivery. Aji et al. (2022) found that administrative complexity, particularly in consent and referral procedures, is among the leading causes of delayed hospital responsiveness in Indonesia. Similarly, Kusumastuti et al. (2021) demonstrated that digital queue systems and automated registration processes can significantly improve patient flow and satisfaction in public hospitals. These findings imply that RSUD Ciawi must simplify bureaucratic approval processes and delegate authority for rapid decision-making during emergencies while fully integrating online registration with the BPJS system to shorten outpatient waiting times.

Assurance, defined by the competence and courtesy of hospital staff, remains compromised by suboptimal compliance in the use of Personal Protective Equipment (PPE), with rates ranging from 65% to 81%. This weakness endangers patient safety and institutional trust. Mulyani and Kurniawan (2022) report that inadequate PPE use correlates with higher incident rates of sentinel events, while Koebe et al. (2023) confirm that lapses in safety protocol adherence are among the main contributors to infection transmission in hospital environments. These findings reinforce the urgency of establishing stronger oversight, routine quality checks for PPE supplies, and stricter disciplinary measures for noncompliance to rebuild patient confidence and safeguard clinical integrity.

The empathy dimension at RSUD Ciawi presents a paradox: while staff exhibit courteous and caring attitudes, this humanistic approach is overshadowed by the hospital's failure to fulfill core service promises due to bed shortages. As Putri and Raharjo (2023) highlight, patient empathy has limited value when hospitals fail to deliver fundamental care access, as operational failures negate positive interpersonal interactions. The unavailability of inpatient beds undermines reliability and empathy simultaneously, transforming individual kindness into institutional dissatisfaction. Addressing this issue demands data-driven capacity management, improved demand forecasting, and the optimization of referral systems to ensure equitable patient access.

The strategic framework developed through the SWOT analysis provides a pathway for resolving these systemic challenges. RSUD Ciawi's key weaknesses—low INM performance, bureaucratic delays, and supply inconsistencies—can be effectively addressed through digital transformation, governance enforcement, and logistics optimization. Koebe et al. (2023) note that digital transformation in hospitals not only enhances administrative efficiency but also strengthens regulatory compliance. This aligns with the proposed SO strategy, which emphasizes the acceleration of Clinical Pathway digitalization within EMR and the mandatory implementation of online registration systems to enhance operational reliability and reduce waiting times. Concurrently, the WO strategy, supported by Napitupulu et al. (2021) and Sofianti and Maulina (2023), advocates for improving logistics reliability through stock monitoring systems and continuous professional training supported by the Ministry of Health. These approaches aim to strengthen the hospital's supply chain resilience and human resource discipline.

Moreover, the WT strategy focuses on enforcing clinical accountability to prevent adverse events and reputational damage. As Sari and Widodo (2023) emphasize, the establishment of transparent and measurable sanction systems for deviations in clinical procedures is critical to fostering a culture of accountability and performance integrity. The ST strategy, which prioritizes the simplification of emergency consent and delegation procedures, also reflects the patient-centered responsiveness model advocated by Hapsari et al. (2022). Altogether, these strategies align with the mandates of Law No. 17 of 2023 and Minister of Health Regulation No. 30 of 2022, ensuring that digitalization, discipline, and accountability form the foundation of continuous quality improvement.

In summary, the improvement of service quality at RSUD Ciawi hinges on the hospital's ability to integrate behavioral discipline, digital supervision, and strong governance. As Koebe et al. (2023) and Sofianti and Maulina (2023) assert, hospitals that align digital systems with regulatory compliance frameworks achieve greater consistency, transparency, and patient satisfaction. Through full digital integration, real-time feedback mechanisms, and strict enforcement of clinical accountability, RSUD Ciawi can transform existing weaknesses into a sustainable culture of quality and safety, thereby reinforcing its role as a trusted regional referral center in Bogor Regency.

6. Conclusions

Based on the research findings, the suboptimal service quality at RSUD Ciawi is influenced by multidimensional factors spanning human resources, operational systems, and organizational governance. The primary weaknesses are rooted in behavioral and procedural noncompliance among clinical staff, as reflected in the low achievement of key quality indicators—Hand Hygiene (53%–69%), Personal Protective Equipment (PPE) use (65%–81%), and Clinical Pathway adherence (25%–49%). These shortcomings present significant risks to patient safety and institutional reliability. Compounding these issues are persistent resource constraints, such as limited bed capacity that leads to frequent inpatient overcrowding, and administrative bottlenecks that impede service responsiveness. Particularly affected are critical and time-sensitive units, including Outpatient Services, Emergency Caesarean Section procedures, and cross-disciplinary coordination in Clinical Pathway implementation. If left unresolved, these systemic weaknesses pose serious threats, including potential BPJS claim rejections, diminished patient satisfaction, and erosion of institutional reputation that may result in declining patient loyalty.

To address these challenges, the recommended strategy for RSUD Ciawi is built upon three key pillars: integrated digital transformation, enforcement of measurable discipline and accountability, and simplification of clinical and administrative service flows. The first priority involves the immediate integration of Clinical Pathway systems into the Electronic Medical Record (EMR), in full compliance with Law No. 17/2023 and Ministry of Health Regulation No. 24/2022, accompanied by firm sanctions for attending physicians (DPJPs) who deviate from standardized protocols without valid justification. The second pillar focuses on strengthening Hand Hygiene and PPE compliance through a culture of safety supported by logistics reliability, direct observation, and the implementation of a structured reward-and-sanction system. The third pillar emphasizes operational efficiency and responsiveness by simplifying the Rapid Consent process for emergency surgical procedures and advancing digital transformation in patient registration. These actions are aligned with the principles of service quality and responsiveness mandated in Ministry of Health Regulation No. 30/2022.

Achieving substantial improvement in service quality at RSUD Ciawi—as a key referral hospital in Bogor Regency—requires strong institutional commitment and inter-level collaboration between local policymakers and hospital leadership. At the regional level, the Head of the Bogor Regency Health Office must take an active and sustained role in supporting hospital quality improvement initiatives by ensuring adequate budget allocation, policy alignment, and strategic human resource development consistent with national health policy mandates. Internally, leadership enforcement is equally critical. The Hospital Director must establish clear, integrated, and measurable policies that prioritize resource allocation for streamlining emergency services, including the fast-track consent process, and ensuring consistent compliance with clinical protocols. Meanwhile, the Deputy Director of Administration should spearhead the digital transformation of patient registration and scheduling systems,

ensuring seamless integration with the national SIK/BPJS platforms to reduce outpatient waiting times. Finally, the Deputy Director of Medical Services must enforce direct supervision and discipline among clinical personnel, particularly in maintaining Hand Hygiene and PPE compliance, to uphold safety, accountability, and patient trust within the institution.

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