

PATIENT SATISFACTION AND HOSPITAL SERVICE QUALITY: ANALYSIS OF TRENDS, GAPS, AND ORGANIZATIONAL INFLUENCES

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Abstract

Introduction: Hospital Service Quality (HSQ) is increasingly recognized as a key determinant of patient satisfaction, loyalty, and overall healthcare outcomes. Numerous studies have explored elements such as employee professionalism, the work environment, and patient-centered care models. However, the existing literature remains fragmented, lacking a cohesive synthesis. Moreover, there is a notable absence of bibliometric analyses that map the intellectual structure, thematic evolution, and global collaboration networks in HSQ research.

Methods: This study employed a systematic literature review in combination with bibliometric analysis to explore global research trends in HSQ. Data were extracted from the Scopus database using the main keyword “Hospital Service Quality,” supplemented by related terms such as “Patient Satisfaction,” “Healthcare Management,” and “SERVQUAL.” The review covered publications from 2015 to 2024. After applying inclusion and exclusion criteria and removing duplicates, a total of 58 relevant documents were selected for analysis. Bibliometric tools were used to examine authorship patterns, country contributions, citation networks, and thematic clusters.

Results: The bibliometric analysis revealed a significant increase in HSQ-related publications over the past decade. Key contributors included specific authors, institutions, and countries, with a concentration of output in regions with advanced healthcare systems. Dominant research themes included the SERVQUAL model, patient satisfaction, employee engagement, and digital health innovations. The study also identified conceptual clusters and intellectual linkages across topics. However, there are noticeable gaps in the literature, particularly concerning the mediating role of employee commitment and the impact of internal organizational factors on service quality.

Discussion: The findings provide a detailed map of the HSQ research landscape, offering insights into its intellectual structure and emerging trends. Despite extensive research on patient outcomes and service metrics, areas related to internal hospital dynamics—such as organizational culture, employee motivation, and leadership—are underrepresented. This gap highlights the need for future studies to integrate internal organizational perspectives into the HSQ discourse. Additionally, the integration of technological advancements, especially in digital health, presents promising opportunities for improving hospital service delivery.

Keywords: Hospital Service Quality; Patient Satisfaction; SERVQUAL; Bibliometric Analysis,

1. INTRODUCTION

Hospitals play a crucial role in providing quality healthcare services that contribute to patient satisfaction, loyalty, and overall health outcomes. (De Regge et al., 2021; Krishnamoorthy et al., 2016; Tan et al., 2019). This aligns with globalization, which has significantly impacted healthcare services, leading to increased patient expectations and rapid advancements in medical technology. (Moshood et al., 2022; Reis et al., 2020). These changes have made Healthcare Service Quality (HSQ) a strategic priority for hospital management worldwide. (Swain & Kar, 2017). Various factors such as employee professionalism, a conducive work environment, employee commitment, and patient-oriented service models have been widely studied as key factors in improving service quality, particularly in hospitals. (Al-Dossary, 2022; Hussein & Abou Hashish, 2016).

Various conceptual models, particularly the SERVQUAL framework, dominate the discourse on measuring Healthcare Service Quality (HSQ). This model emphasizes dimensions such as tangibility, reliability, responsiveness, assurance, and empathy. (Parasuraman et al., 1988; A’aqoulah et al., 2022; Isik et al., 2011; Kansra & Jha, 2016; Shafiq et al., 2017; Ajwinder Singh, 2021; Yoganandan, 2022). This model has highlighted the importance of internal organizational factors such as Quality of Work Life (QWL) and Employee Commitment (EC) in creating a high-quality service environment. (Beloor et al., 2017). Most of these studies use an empirical approach, primarily

quantitative analyses such as Structural Equation Modeling (SEM) or path analysis to examine specific institutional contexts. (Agyapal Singh, 2022).

However, despite numerous studies, there remains a significant gap in efforts to synthesize and comprehensively map the study of Healthcare Service Quality (HSQ) from a global perspective. Previous research has generally focused on case studies or local contexts, often limited by geographic scope, sample size, or specific methodological approaches. Furthermore, although classical dimensions such as SERVQUAL have been widely discussed, systematic investigations into how emerging factors—such as digital health innovation, employee well-being, and organizational commitment—interact within the HSQ discourse are still underexplored. This indicates the absence of a comprehensive effort to integrate these fragmented findings into a cohesive understanding. Additionally, some researchers have criticized service quality models like SERVQUAL and SERVPERF for operational flaws, high implementation costs, and issues related to response recall bias. (Basheer Abbas Al-allak, 2011; Sur & Çakır, 2024). Moreover, there is a gap in bibliometric studies that specifically focus on the field of Hospital Service Quality. The bibliometric approach offers a method to map scientific development, identify research trends, influential authors and institutions, as well as understand thematic evolution within a field of study. Applying this approach to HSQ will address several fundamental questions, particularly regarding dominant themes and underexplored areas—such as the mediating role of employee commitment or the integration of technology in service improvement. Utilizing the large-scale Scopus database provides a mapping of trajectories, collaboration patterns, and the intellectual structure of HSQ research.

Several bibliometric studies in the health sector have been conducted, especially on topics like patient safety, healthcare innovation, and nursing management. However, bibliometric studies specifically addressing HSQ remain limited. Furthermore, in the post-pandemic era, as healthcare institutions worldwide increasingly integrate digital solutions, telemedicine, and patient-centered service models, there is still no bibliometric evidence revealing how these trends reshape the discourse on HSQ.

To address the identified gap, this study undertakes a rigorous bibliometric analysis of the global research landscape on Hospital Service Quality (HSQ) spanning the period from 2015 to 2024. The primary objective is to construct a comprehensive intellectual map that may serve as a foundational reference for scholars in formulating future research trajectories and enhancing the practical application of HSQ-related insights. This investigation critically examines prevailing trends and patterns in the evolution of HSQ scholarship, delineates the dominant thematic domains, conceptual clusters, and intellectual structures that characterize the field, and elucidates their interrelations with patient satisfaction and internal organizational dynamics. Particular emphasis is placed on uncovering research lacunae, especially concerning internal organizational factors such as employee commitment and the work environment, which remain insufficiently explored within the extant literature.

2. LITERATURE REVIEW:

2.1. Multidimensional Theoretical Perspective of Hospital Service Quality (HSQ)

Research on Hospital Service Quality (HSQ) has rapidly developed over the past decade, as detected through the Scopus database publications. There are three main theoretical dimensions dominating the HSQ discourse: Quality of Work Life (QWL), Employee Commitment, and Service Quality Dimensions (SERVQUAL Model), which have been the focus of many studies.

First, QWL theoretically reflects working conditions that affect the physical, psychological, and social well-being of healthcare workers. Cascio Wayne (2006) It emphasizes four key components of QWL: employee participation, career development, reward systems, and work environment. Bibliometric results show that QWL issues are often linked to healthcare worker productivity, job satisfaction, and work-life balance. (Stefana et al., 2021).

Second, Employee commitment serves as a crucial mediating variable in various HSQ models. Allen & Meyer (1990) Employee commitment is classified into three dimensions: affective, continuance, and normative commitment. Bibliometric studies reveal that the relationship between QWL and employee commitment is a major focus in HSQ research, where high employee commitment contributes to optimal service quality. (Mihardjo et al., 2020; Agyapal Singh, 2022).

Third, Service Quality Dimensions (SERVQUAL Model): hospital service quality is often measured using the SERVQUAL model. (Parasuraman et al., 1988) with five main dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Bibliometric research finds that these dimensions are not only used in traditional service quality measurements but have also adapted to the digitalization of hospital services. (Pena et al., 2013).

There is a growing trend of studies integrating the three concepts within a framework to improve healthcare service quality. Visualization of co-occurrence keywords and citation mapping show that the relationship between QWL, employee commitment, and HSQ is a central topic in the literature, especially in the context of patient satisfaction and hospital efficiency. Thus, this article not only provides a multidimensional theoretical review but also maps the research development direction of HSQ through a bibliometric approach.

3. MATERIAL AND METHOD

This study uses a Systematic Literature Review (SLR) approach combined with bibliometric analysis techniques. The study follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure the data selection and analysis processes are conducted systematically. (Korn et al., 2023). Our review methods are reported in detail in a previously published protocol.

3.1. Information sources and search strategy

We collaborated with a research librarian and experts in cancer control research to develop the search strategy. Search strings included terms for Hospital Service Quality and search strategies included limiters, with some variation by database: English language, publication years 2015–2024, and journal articles or review articles (the latter to facilitate reference hand searching). We performed systematic literature searches in Maret 2024 in databases Scopus. The research librarian used Mendeley Dekstop reference management software for management and automated deduplication of records.

3.2. Eligibility criteria

Inclusion criteria

Eligible studies were English-language original research articles published in a peer-reviewed journal between 2015 and 2024 (Table 1).

Exclusion criteria : We excluded studies published before 2015 and those not available in English. We excluded nonempirical (e.g., editorials, commentaries) articles, conference abstracts, gray literature, and other nonpeer-reviewed sources. We did not include reviews or meta-analyses, although we conducted hand searches of references from relevant reviews to determine whether they contained any studies eligible for our review.

Table 1. Inclusion and exclusion criteria.

	Include	Exclude
Record available	Full text record available	Full text irretrievable
Year published	2015-2024	Before 2015
Language	English	Non-English
Subject Are	Medicine, Health Professions Nursing,	Computer Science, Engenering, Decision Sciences, Mathematic and etc
Publication Stage	Final	Article in press
Source type	Journal	Conference proceeding, Book Series, Book

Study selection

Figure 1 shows the PRISMA flow diagram, which included all eligible study designs for systematic review project. The database searches yielded 222 records. After removing duplicates,

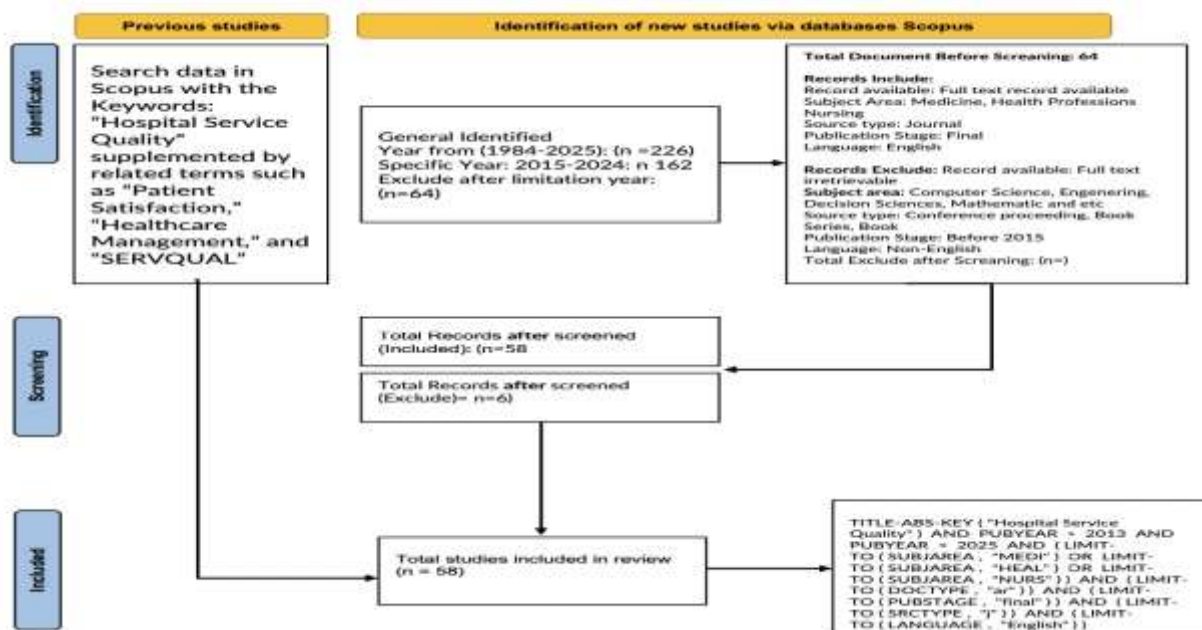


Fig.1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram Hospital Service Quality

3.3. Data Analysis Techniques

The data were analyzed using VOSviewer software to generate various bibliometric visualizations to address the research questions. The following data visualizations were used to answer the questions in this study:

1. Network

It is used to map concepts related to the study of Hospital Service Quality. This visualization addresses RQ2.

2. Overlay Visualization (Temporal Analysis)

It maps the development of research trends over time, showing how the focus of HSQ research has evolved. This visualization addresses RQ1 (Trends & growth patterns of HSQ) and RQ5 (Evolution of HSQ research focus, particularly related to technological advances, accreditation, and global challenges).

3. Density Visualization

It is used to examine and identify dominant themes over time as well as under-researched areas. This visualization addresses RQ3 (Dominant themes & concept clusters).

Additionally, VOSviewer enables thematic analysis by examining the frequency and co-occurrence of keywords. This analysis aims to identify core themes and emerging topics within the research field. This visualization is used to answer the research questions.

4. RESULT AND DISCUSSION

The results section of this study will outline several key points derived from the bibliometric analysis related to Hospital Service Quality. First, the findings will explain the annual publication trends from 2015 to 2024 to illustrate the development of research on Hospital Service Quality over the years. Second, the study will present the geographic distribution of publications to identify the countries that dominate research in this field.

Next, the results will highlight the most influential works based on the highest citation counts, covering both author productivity and the most frequently cited documents by other researchers. Additionally, knowledge network visualizations will be presented to show collaboration patterns among authors, institutions, and countries in Hospital Service Quality research. Furthermore, the analysis will include thematic and temporal trends aimed at identifying how research topics and dynamics have evolved in recent years. Finally, the study will present a bibliometric heatmap to reveal research hotspots and identify potential topics that remain underexplored. All these points will be discussed systematically to provide a comprehensive overview of the development landscape and future directions in Hospital Service Quality research.

4.1. Publication by Year

The bibliometric analysis of publications on Hospital Service Quality shows variation in the number of publications each year during the period from 2015 to 2024. Based on data obtained from the Scopus database, there is a clear upward trend in publications year by year, with some fluctuations reflecting the dynamic academic interest in the topic of hospital service quality. This annual trend analysis is important to identify the consistency and focus of researchers in examining various aspects of hospital service quality, as well as to provide an overview of the topic's urgency in the global scientific literature.

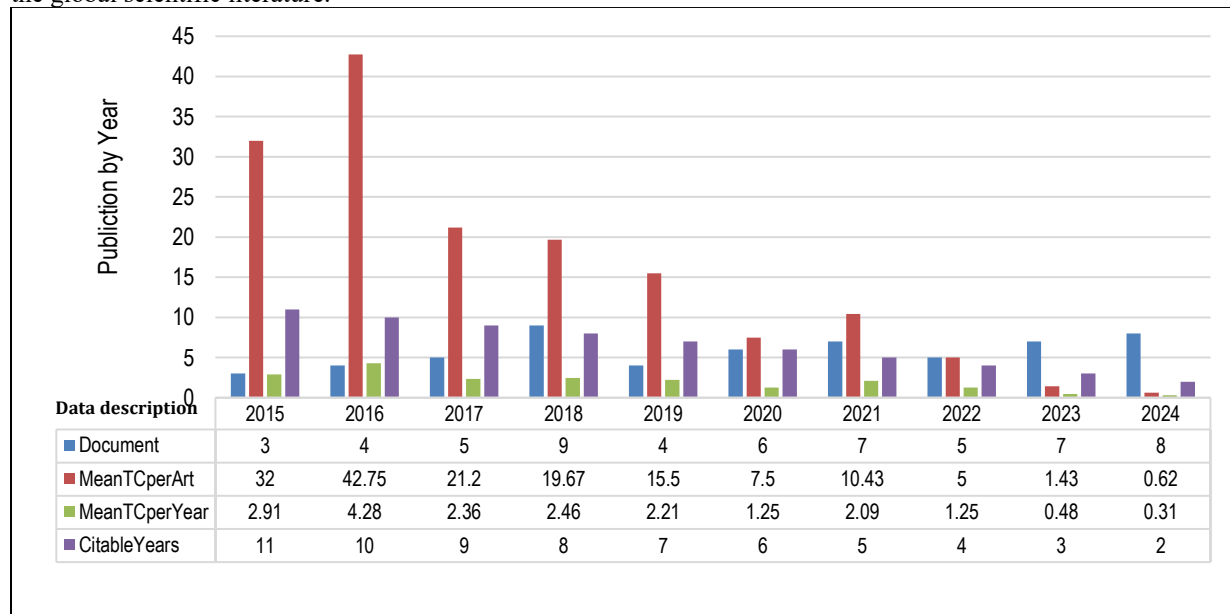


Fig 2. Trends in Hospital Service Quality: Annual Publication Distribution (2019-2024)

Source: Scopus DataBase (from 2019-2024)

Data show that studies on Hospital Service Quality in 2015-2016 focused on issues such as service quality measurement (SERVQUAL) and patient satisfaction. (Kalaja et al., 2016; Li et al., 2015; Naik Jandavath & Byram, 2016; Pai & Chary, 2016; Shabbir et al., 2016). From 2017 to 2019, the focus shifted to implementation studies in hospitals. (Fry, 2018; Gabutti et al., 2017; Geerligs et al., 2018; Greenhalgh & Papoutsi, 2018), Next, in 2020-2021, the issues centered on the pandemic, including service adaptation, patient safety, and crisis management. (Berry et al., 2020; Sterling et al., 2021; Braithwaite, 2021)). However, after the pandemic, there was a decline in citations, mostly because studies addressing digital transformation, health technology, sustainability, and innovation-based patient-centered care were limited.

4.2. Publication by Country

The geographic distribution analysis of publications related to Hospital Service Quality shows research from various countries worldwide. Based on the visualization (Fig. 3), countries such as Iran, Indonesia, and India dominate the number of publications on the HSQ topic.

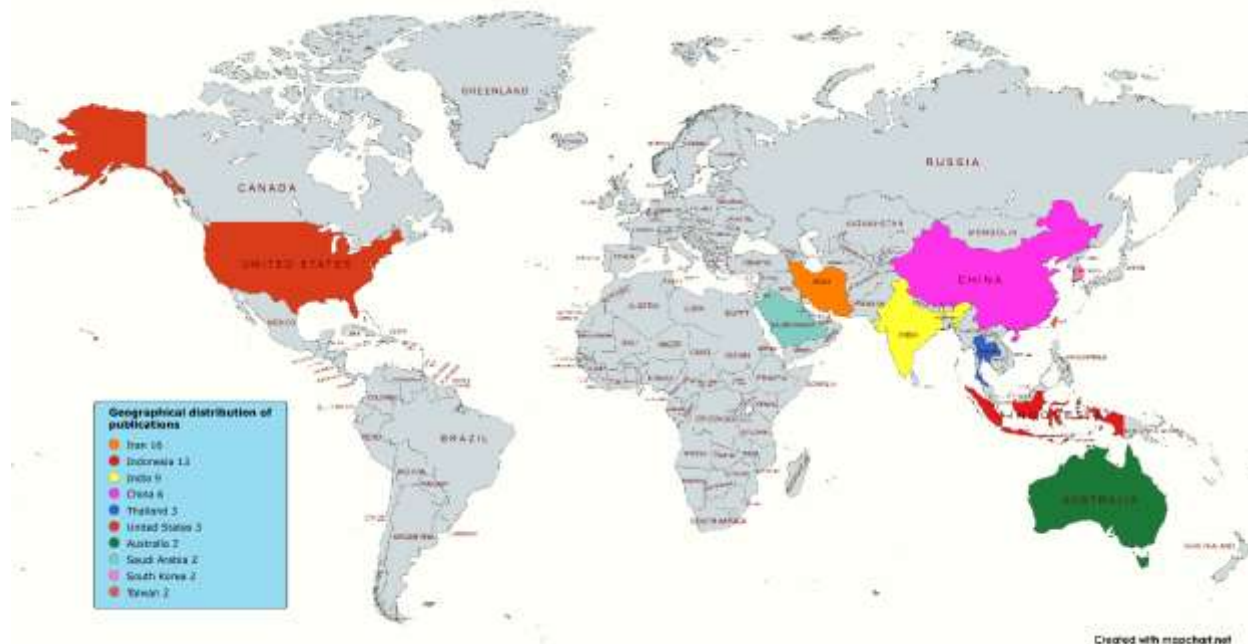


Fig. 3 Geographical Distribution of Research Publications in HRM and ICT
(Source: Scopus DataBase)

The bibliometric analysis results show that publications related to Hospital Service Quality (HSQ) during the 2015–2024 period are dominated by Iran (16 publications), Indonesia (13 publications), and India (9 publications). This dominance reflects the correlation between academic interest and the health policy dynamics of each country. In Iran, the high focus on HSQ is closely linked to the implementation of the Health Transformation Plan (HTP) since 2014, which emphasizes improving hospital services and patient satisfaction. (Jafari et al., 2021). This has driven evaluative studies based on models like SERVQUAL to empirically measure service quality.

Indonesia shows a similar trend, driven by the implementation of the National Health Insurance (JKN), which requires continuous evaluation of hospital service quality amid geographic challenges and disparities in healthcare access across regions. (Maulana et al., 2022). Meanwhile, in India, national health programs such as NHM and Ayushman Bharat are the main drivers behind studies related to service quality, given the complexity of the healthcare system involving both public and private sectors and the need to ensure equitable access to services. (Kumar, 2023).

This phenomenon shows that developing countries are increasingly prioritizing HSQ evaluation as a strategic focus in health reforms. Besides reflecting systemic challenges, this trend also marks the growing academic capacity in the Global South to contribute to the global discourse on healthcare service quality management.

4.3. Influential Work

This section identifies several scholarly works that have had a significant impact on the development of research related to Hospital Service Quality. The influence is measured by the number of citations each article has received, both in total and on an average per year basis.

Table 2 Authors' Production over Time

No	Author/Year/Title	Country	Sumber	DOI	Tc	TCpY
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1	(Wahyanto et al., 2020). People Equity Model as An Effort to Increase Employees' Intention to Stay	Indonesia	Journal Of Health And Translational Medicine	https://doi.org/10.4081/jphr.2020.1843	1	0.167
2	(Endra et al., 2019). Medical staff services quality to patients' satisfaction based on SERVQUAL dimensions	Indonesia	International Journal of Public Health Science (IJPHS)	http://doi.org/10.11591/ijphs.v8i1.17066	23	3.286
3	(Jafari et al., 2021). Evaluation of Undata Public Hospital Service Quality and Performance Using SERVQUAL Method: Post Multi Disaster (Earthquake, Tsunami, and Liquefaction) in Palu, Central Sulawesi, Indonesia	Indonesia	Malaysian Journal of Medicine and Health Sciences	NA	5	1
4	(Bahadori & Teymourzadeh, 2018). Accreditation effects on health service quality: nurse viewpoints	Iran	International Journal of Health Care Quality Assurance	https://doi.org/10.1108/IJHCQA-07-2017-0126	14	1.75
5	(Swain & Kar, 2018a). Hospital service quality as antecedent of patient satisfaction – a conceptual framework	India	International Journal of Pharmaceutical and Healthcare Marketing	https://doi.org/10.1108/IJPHM-06-2016-0028	46	5.75

The five analyzed articles highlight various aspects related to Hospital Service Quality (HSQ), focusing on factors that influence patient satisfaction and loyalty. The first article discusses the development of the People Equity Model as a strategy to increase employees' intention to remain working in hospitals, which ultimately contributes to improving service quality. The second article evaluates the quality of medical staff services on patient satisfaction based on the SERVQUAL dimensions, emphasizing the importance of alignment between expectations and actual service in determining patient satisfaction levels.

In the context of crisis situations, the third article assesses service quality at RSUD Undata, Palu, following the earthquake, tsunami, and liquefaction disasters, using the SERVQUAL method. This study reveals challenges in maintaining service standards amid resource and infrastructure limitations caused by the disaster. Meanwhile, the fourth article highlights the impact of the accreditation process on healthcare service quality from the nurses' perspective, examining the effectiveness of accreditation in improving service quality as well as the potential administrative burden on healthcare workers. The fifth article develops a conceptual framework linking hospital service quality to patient satisfaction, emphasizing that improving service quality directly contributes to increased patient satisfaction and loyalty.

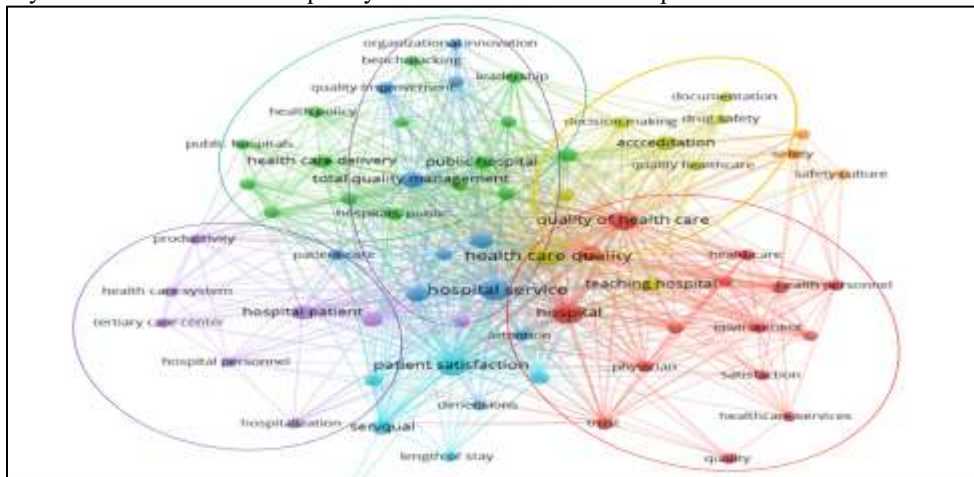
Overall, these five articles affirm that enhancing hospital service quality requires a holistic approach encompassing human resource management, employee commitment, continuous evaluation of service standards, and adaptation to external conditions such as crisis situations or accreditation processes.

4.4. Most Global Cited Documents

Analysis of the most highly cited documents globally reveals several articles with significant impact on Hospital Service Quality research. These documents have gained wide attention from the international academic community due to their substantial contributions in methodology, empirical findings, and theoretical development. Some examine hospital service quality evaluations in Asian contexts, the application of importance–performance analysis to assess patient perceptions, and the development of conceptual frameworks linking patient satisfaction as an outcome of service quality.

Table 3 Most Global Cited Documents

Paper	DOI	Total Citations	TC per Year	Normalized TC
(Shafiq et al., 2017). Service quality assessment of hospitals in Asian context: Empirical evidence from Pakistan	10.1177/0046958017714664	69	7.67	3.25
(Mohebifar et al., 2016). Evaluating service quality from patients' perceptions: application of importance–performance analysis method	10.1016/j.phrp.2016.05.002	64	6.4	1.5



appear in this cluster. This confirms that most research in the HSQ literature focuses on hospital service quality and its direct impact on patient satisfaction and trust. (Endra et al., 2019)(Shammot, 2021)(Ozretić Došen et al., 2020). This scope includes external factors related to patients' perceptions of the services provided, such as hospital environment conditions, quality of interaction with healthcare staff, and overall health service outcomes.

Clusters 2 (green) Themes such as Total Quality Management, Public Hospital, Health Care Delivery, Quality Improvement, Leadership, and Benchmarking characterize this cluster. It shows that the literature focuses on applying quality management strategies and organizational innovation within the hospital context. Approaches like TQM and benchmarking are used to enhance the efficiency, effectiveness, and overall quality of healthcare services. (Tzortzopoulos, 2018). Additionally, the role of leadership in driving quality improvement is also a key focus within this cluster.

Clusters 3 (Blue) Hospital service, Organization Innovation, Quality Improvement, Patient Care. This cluster highlights the literature's focus on hospitals' sustainable contributions to organizational innovation and quality improvement, aiming to optimize hospital services. (Carpenter et al., 2018; Clavel et al., 2019; Gorli et al., 2015). Issues related to hospital services and patient care occupy a prominent position, emphasizing the importance of the patient experience in receiving healthcare. Additionally, organizational innovation reflects hospitals' efforts to address existing healthcare challenges through the adoption of new technologies, innovative service models, or structural changes.

Clusters 4 (yellow) The yellow cluster covers various important aspects, including accreditation, decision-making processes, ensuring healthcare service quality, and maintaining comprehensive documentation. It is crucial to recognize the interconnected nature of these elements, intricately woven together with the overarching goal of complying with international and national regulations, as well as adhering to established standards. (Alkhenizan & Shaw, 2011; Chillimuntha et al., 2024; van Vliet et al., 2023). This ensures the delivery of healthcare services that meet the highest quality standards. The importance of effective decision-making processes within the organization, along with the development of a strong safety culture, is emphasized by the correlation between managerial process effectiveness and the strengthening of safety culture. This, in turn, contributes to improved healthcare outcomes, highlighting the crucial role of safety culture in ensuring optimal healthcare service delivery.

Clusters 5 (Purple) Hospital Patient, Hospital Personnel, Hospitalization, health care system dan productivity. The purple cluster focuses on health system aspects and human resources in hospitals, including patients and healthcare workers. Topics such as hospital patients and hospital personnel reflect the close relationship between patient conditions and healthcare staff performance, while productivity and healthcare systems highlight the importance of efficiency and effectiveness of the hospital system as a whole. (Åhlin et al., 2022). The last theme, inpatient care, discusses inpatient experiences and their impact on quality of care.

4.6. Analysis of Hospital Service Quality: A Bibliometric Visualization from 2019 to 2024

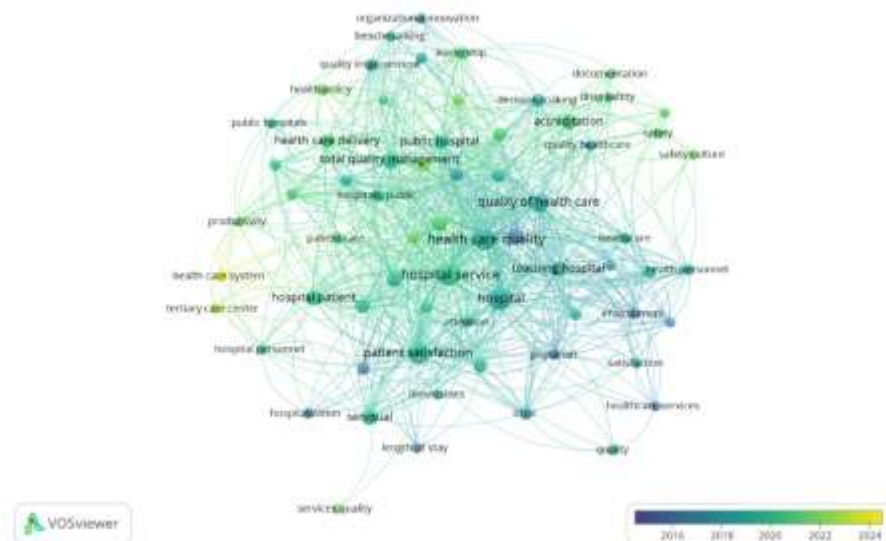
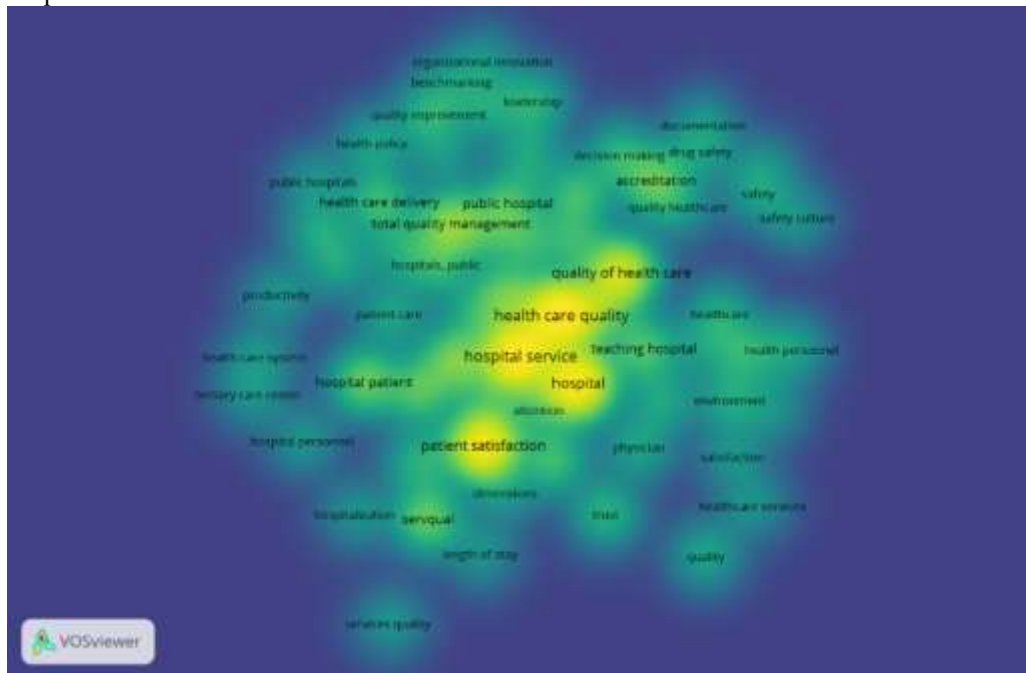


Fig 5. Trend Analysis of Hospital Service Quality: A Bibliometric Visualization from 2019 to 2024
(Sumber: Processed by Author Using VOSviewer)

Based on bibliometric visualization using VOSviewer, research trends on Hospital Service Quality (HSQ) from 2015 to 2024 show significant topic evolution. In the early period (2015–2019), research focused mainly on fundamental aspects such as patient satisfaction, hospital services, healthcare quality, and service quality measurement using the SERVQUAL model.

These findings demonstrate that HSQ research trends have evolved from basic service evaluation to systemic and technology-based approaches focusing on patient safety. This opens opportunities for further research on digital technology integration, risk management, and patient safety innovation to support higher quality and sustainable hospital services.



4.7. Thematic Map of Hospital Service Quality Research

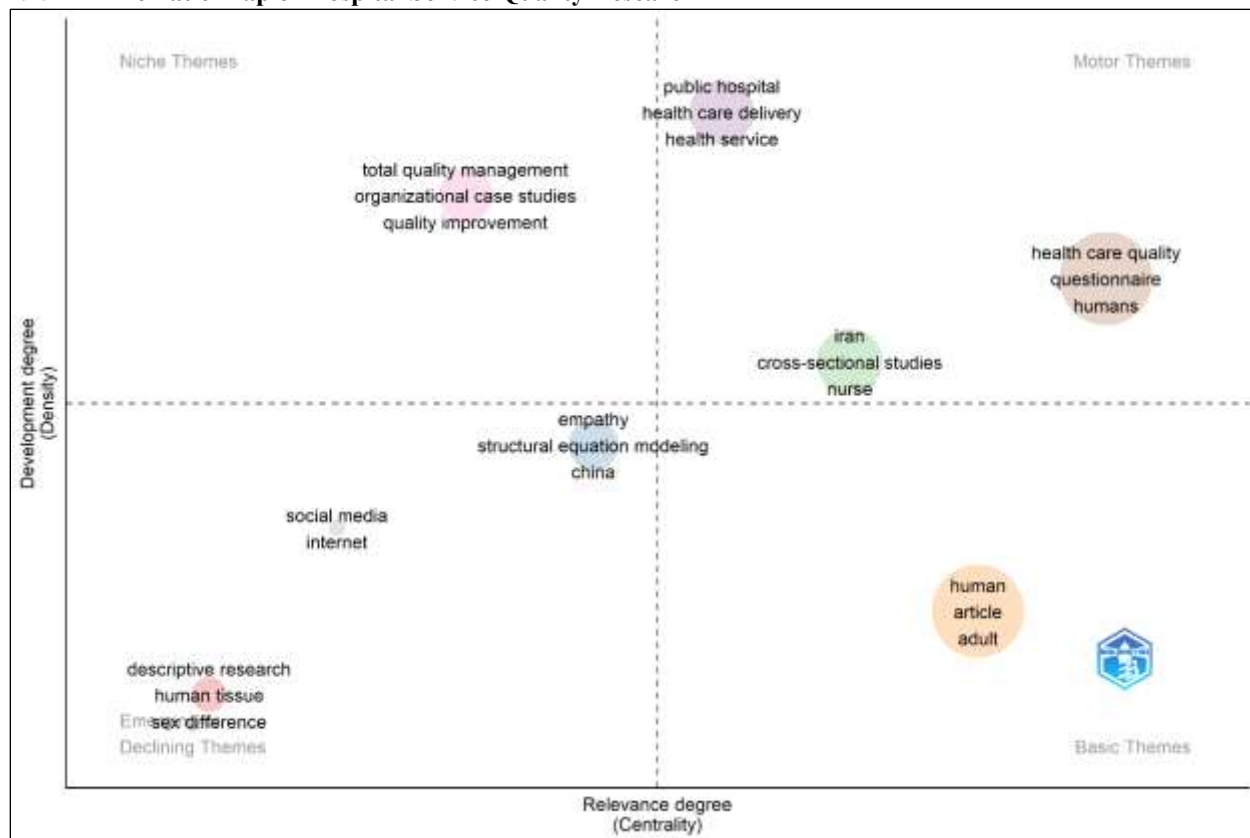


Fig. 7 Thematic Map of Hospital Service Quality Research

Based on the Thematic Map derived from the bibliometric analysis of Hospital Service Quality research, the study themes can be classified into four quadrants according to their level of relevance (centrality) and development (density). In the upper right quadrant (Motor Themes), themes such as health care quality and humans stand out, indicating they are highly relevant and rapidly developing topics. This suggests that research on health care quality is a primary focus, not only frequently discussed but also showing significant theoretical and methodological advancement.

Meanwhile, themes like public hospital, health care delivery and health service also fall into the Motor Themes category, highlighting that aspects related to general hospital services and the delivery process of health care are central and serve as key drivers in the study of Hospital Service Quality.

In the upper left quadrant (Niche Themes), themes such as total quality management and quality improvement appear. These themes exhibit a high level of development but have limited relevance or connection with other research themes. This means that studies on total quality management and organizational case studies are well-developed but remain more specific and have yet to be broadly integrated into the wider research landscape. Conversely, the lower right quadrant (Basic Themes) includes topics such as human and adult. These themes have high relevance but relatively low development or density.

Lastly, the lower left quadrant (Emerging or Declining Themes) shows themes like social media, internet, and human tissue, which still have low density and relevance. This indicates that the integration of digital technology, social media, and descriptive research within the context of Hospital Service Quality is still underdeveloped and may represent either emerging areas with potential growth or declining topics, depending on future research developments.

5. CONCLUSION AND IMPLICATION

This study provides a comprehensive bibliometric overview of the trends and developments in research on Hospital Service Quality (HSQ). The analysis results indicate that HSQ research has experienced significant growth over the past decade, with major contributions coming from developed countries and influential authors. The thematic mapping reveals that core topics such as patient satisfaction, health care service quality, and the SERVQUAL model dominate studies in this field. Additionally, emerging themes highlight the relevance of digital health integration and cross-sectional studies related to health service delivery.

However, the findings also identify several research gaps, particularly concerning internal organizational factors such as leadership, employee commitment, and quality improvement strategies. These themes remain underexplored but hold great potential to advance understanding of how hospital internal dynamics impact service quality outcomes. Therefore, future research is expected to delve deeper into these topics, especially within the context of digital technology advancements and health service transformation. Overall, this bibliometric analysis not only maps the intellectual structure of HSQ research but also provides guidance for future study development and practical implications to enhance hospital services and patient care quality.

Research Limitation and Practical Recommendations.

This study has several limitations. First, the data source used is limited to the Scopus database. Although Scopus is one of the largest and most reputable databases, it is possible that some important publications related to Hospital Service Quality (HSQ) indexed in other databases such as Web of Science, PubMed, or Google Scholar were not included in this analysis. Second, the bibliometric analysis employed primarily focuses on quantitative data such as publication counts, citations, and collaboration networks, thus it does not deeply explore the content of individual articles. This limits the analysis of the conceptual dimensions and empirical contexts of the studies reviewed. Third, the study period is confined to the years 2015 to 2024, meaning relevant research published before or after this timeframe is excluded from the scope of this study. For future research, the thematic map overall suggests that current HSQ studies still predominantly focus on evaluating health service quality and general hospital management aspects, while areas such as digital innovation, social media-based approaches, and specific organizational strategies present significant opportunities for further exploration.

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