

Service Quality in the Healthcare Industry: A Literature Review and Research Agenda

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ABSTRACT

The purpose of this paper is to systematically review the literature published on the various aspects of service quality in the healthcare industry. The study is based on secondary information collected through the systematic review of 144 identified literature. It is found that there are 25 factors affecting the perception of customers towards the service quality, 6 important impact of service quality, 17 dimensions of service quality were identified, and 16 different measures to improve perception towards service quality. The study exhibits the influential drivers of service quality and customer perception that may stimulate healthcare managers to hold on to their customer base and enhance profitability. A positive relationship between customer satisfaction and customer loyalty was also found. Finally, it concluded that if an organization desires to survive for a longer period, it is imperative to do the persistent investigation of its service quality. Therefore, the study recommends continuous quality improvement programs, proper usage of customer relationship management (CRM) and information System (IS) in order to ameliorate patient satisfaction, and loyalty in return.

Keywords: Service Quality, Customer Satisfaction, Patient Loyalty, Hospital, Healthcare

INTRODUCTION

Service quality is the cornerstone of a good organization, which provides a competitive edge. With globalization and the COVID-19 pandemic, the volume of healthcare industry has been growing rapidly, which makes it even more imperative for the organization to continuously improve the quality of the services they offer to their customers (Akil & Ungan, 2022). Service quality is the comparison of perceived expectations of any service with perceived performance and thus needs to be catered very seriously by the organization. Organizations need to focus on this area to understand the perception of the customer so that they can provide the expected deliverance. Bitner and Hubbert (1994) defined service quality as “the consumer’s overall impression of the relative inferiority/superiority of the organization and its services”. The most significant work in the context of customer’s perceived service quality was done by Parsuraman, Berry and

Zeithaml (2012). They developed a SERVQUAL scale to measure customer’s perception of service quality. The scale consists of five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Further, Zeithaml, Bitner and Glemmler (2009) and Singh and Choudhury (2017) have calculated customer’s perception as the difference between the scores of expected service regarding a particular dimension and perceived service on the same dimension. However, it is important to tailor the SERVQUAL scale to a sector’s specific needs, culture or nation (Butt & Run, 2010). The SERVQUAL model was further developed into the SERVPERF model by Cronin and Taylor (1992), which focusses on the performance-based approach to the measurement of service quality. This scale was further tested by Brady et al. (2002), who concluded that the performance measurement of service quality was superior to the former one. Buyukozkan and Cifei (2012) later proposed a combined fuzzy analytic hierarchy process (AHP).

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Neupane and Devkota (2011) and Caruana (2002) found that service quality is an important input to customer satisfaction. Customer satisfaction does play a mediating role in the effect of service quality on service loyalty. Taylor and Baker (1994) suggest that consumer satisfaction is best described as moderating the service quality intention relationship. Oliver (1993) stated that customer satisfaction refers to the customer's response to fulfillment. In Indonesian hospitals, the usage of a Community Satisfaction Index is prevalent, which ensures the community satisfaction level (Lunis & Atin, 2020). Alumrun et al. (2020) did a quantitative cross-sectional design for comparing service quality in public and private hospitals in Saudi Arabia using a questionnaire to find out that the patients at private hospitals had a perception of a higher level of quality with respect to health care services. In a research study to study the customer perception of quality of services offered in hospitals of Turkey using the SERVPERF model, it was found that all the dimensions related to the model are significantly related to overall service quality (Akdere et al., 2020). The hospital service was further divided into the hospital emergency room service quality and it was measured in Israaali context (Shuv-Ami & Shalom, 2020).

Service quality and customer satisfaction vary from industry to industry and from place to place. In this paper, various dimensions of service quality with a special focus on its impact on customers' satisfaction in the healthcare industry are considered. Mosadeghrad (2013) defined service quality in the context of healthcare as "consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patient's needs and satisfies providers."

The healthcare industry and its consumers have certain unique features that distinguish it from other industries. Shemwell and Yavas (1999) found the fact that healthcare services are credence services where consumers typically do not have enough knowledge or expertise to make a rational judgment. In addition, the consumption of healthcare services involves such consumer emotions as fear and relief since consumers do not know what is involved in producing a satisfactory result. Considering the above-mentioned point, the objectives of this paper are as follows:

- To identify the factors affecting the perception of consumers towards service quality of healthcare sector;
- To study the impact of service quality in healthcare sector;
- To identify the dimensions of service quality in healthcare sector; and
- To identify the measures to improve service quality.

Rest of the paper is organized as follows: Section 2 of the paper deals with the methodology of the study. Section 3 contains factors affecting patient's perception of service quality of a healthcare unit. Section 4 deals with impact of service quality. Section 5 describes the dimensions of service quality. Section 6 explains the measures to improve service quality in healthcare sector and the final section provides the conclusion, implications and limitations of the paper.

METHODOLOGY OF THE STUDY

The study is based on secondary data collected primarily through the review of existing literature from various sources such as books, journals, working papers, reports, etc. All such studies related to the service quality, customers' satisfaction towards the healthcare industry, customer's loyalty towards the healthcare service provider have been considered. After the review, all the literature have been classified into different groupings considering the nature of their findings. The study uses logical reasoning and discussion to arrive at various findings. Besides, citation analysis has also been done to draw inferences from the review of existing literature. The papers considered for the literature review are selected on the basis of a systematic literature review.

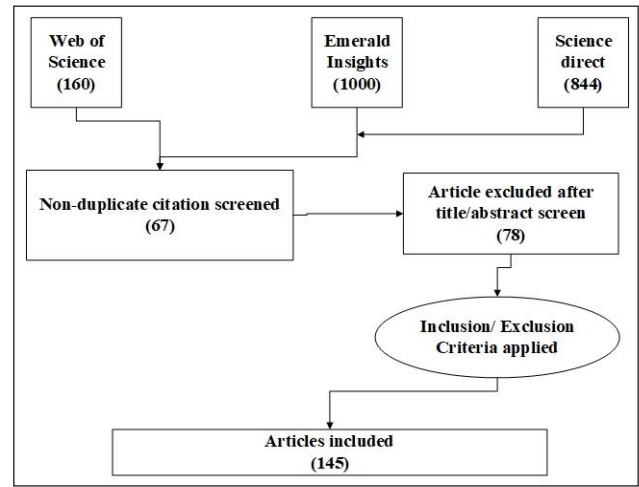
Review Design and Structure

A thorough and comprehensive literature review was conducted in this section. The literature search in this area focused on two keywords 'service quality' and 'healthcare industry'. The research conducted in this field was primarily targeted the following previous reviews (Canabal & White 2008; Dikova & Brouters 2016; Keupp & Gassmann 2009; Shen, Puig & Paul 2017). The online databases such as EbscoHost, Science Direct, Web of

Science, Taylor, and Francis, and Emerald was checked to find all published researches in the area. Our choice to review healthcare service literature entailed three selection criteria: first, we limited the review to journals that were included related to the field, as resulted in using ‘AND’ along with ‘OR’ operation. Second, we limited the search to articles published between 1986 and 2020. Thirdly, the most-cited article related to this field were only included.

The next step was to apply the inclusion criteria at the point of the final evaluation. The initial inclusion criterion was that the articles must be totally written in the English language, and the keywords searched must be present in the title, subtitles and abstract of the articles. In the later stage, the exclusion of meta-analyses, unpublished research comments, dissertations, master’s theses was also done. The studies must examine service quality but only in the Healthcare Industry. The focus must be only on service quality with customer satisfaction and not on other components. So, 316 articles were selected till this stage. The skimming review process is done to identify these research papers to understand the relevant work done in this area. The results can be copied into their respective databases and crosses checked to provide the results, but as these databases are dynamic and actively updated, the results may vary in the number of documents (Gupta, Altay & Luo, 2019). Finally, we identified and included 145 articles in the literature review. The relevant

articles were cited in the research work at appropriate places. The below diagram depicts the inclusion and exclusion of articles related to topics.



Source: Authors’ compilation.

Fig. 1: Diagram Showing the Inclusion and Exclusion of Articles for Review

Subsequent to this stage, Table 1 is prepared which consists of most-cited articles from 2000 to 2020. The keywords used were healthcare quality services with customer satisfaction. The article cited less than 40 times were not considered in the study.

Table 1: Most-Cited Articles from 2000 to 2021

Title	Authors	Source Title	Publication Year	Total Citations
Factors affecting patient satisfaction and health-care quality	Naidu, Aditi	International Journal of Health Care Quality Assurance	2009	416
Factors influencing healthcare service quality	Mosadeghrad, Ali Mohammad	International Journal of Health Policy And Management	2014	314
Private healthcare quality: applying a SERVQUAL model	Muhammad Butt, M., & Cyril De Run, E.	International Journal of Health Care Quality Assurance	2010	280
The impact of service quality dimensions on patient satisfaction, repurchase intentions and word-of-mouth communication in the public healthcare industry	Kitapci, O., Akdogan, C., & Dortyol, I. T.	Procedia-Social and Behavioral Sciences	2014	194
Service quality and its impact on customer satisfaction in Indian hospitals: Perspectives of patients and their attendants.	Padma, P., Rajendran, C., & Sai Lokachari, P	Benchmarking: An International Journal	2010	175
A combined fuzzy AHP and fuzzy TOPSIS based strategic analysis of electronic service quality in the healthcare industry	Buyukozkan, Gulcin; Cifci, Gizem	Expert Systems With Applications	2012	173
Strategic analysis of healthcare service quality using fuzzy AHP methodology	Buyukozkan, Gulcin; Cifci, Gizem; Guleryuz, Sezin	Expert Systems With Applications	2011	134

<i>Title</i>	<i>Authors</i>	<i>Source Title</i>	<i>Publication Year</i>	<i>Total Citations</i>
Managing healthcare quality in Ghana: a necessity of patient satisfaction Assurance	AyimbillahAtinga, R., Abekah-Nkrumah, G., & AmeyawDomfeh, K.	International Journal of Health Care Quality	2011	123
Strategic performance measurement in a healthcare organisation: A multiple criteria approach based on the balanced scorecard	Grigoroudis, E.; Orfanoudaki, E.; Zopounidis, C.	Omega-International Journal of Management Science	2012	98
Critical factors of hospital adoption on CRM system: Organizational and information system perspectives	Hung, Shin-Yuan; Hung, Wei-Hsi; Tsai, Chia-An; Jiang, Shu-Chen	Decision Support Systems	2010	91
When the customer is the patient: Lessons from healthcare research on patient satisfaction and service quality ratings	Vogus, T. J., & McClelland, L. E.	Human Resource Management Review	2016	70
Links among high-performance work environment, service quality, and customer satisfaction: An extension to the healthcare sector	Scotti, Dennis J.; Harmon, Joel; Behson, Scott J.	Journal of Healthcare Management	2007	73
Customer perceived service quality, satisfaction and loyalty in Indian private healthcare	Kondasani, R. K. R., & Panda, R. K	International Journal of Health Care Quality Assurance	2015	66
Loyalty, perceived value and relationship quality in healthcare services	Moliner, Miguel A.	Journal of Service Management	2009	65
Mindfulness, reliability, pre-emptive conflict handling, customer orientation and outcomes in Malaysia's healthcare sector	Ndubisi, Nelson Oly	Journal of Business Research	2012	56
Effects of high-involvement work systems on employee satisfaction and service costs in veterans' healthcare	Harmon, J; Scotti, DJ; Behson, S; Farias, G; Petzel, R; Neuman, JH; Keashly, L	Journal of Healthcare Management	2003	56
Creating a healing environment: The importance of the service setting in the new consumer-oriented healthcare system	Fottler, MD; Ford, RC; Roberts, V; Ford, EW	Journal of Healthcare Management	2000	56
Does psychological empowerment mediate the relationship between high-performance work systems and patient care quality in hospitals?	Bonias, Dimitra; Bartram, Timothy; Leggat, Sandra G.; Stanton, Pauline	Asia Pacific Journal of Human Resources	2010	49

Source: Author compilation 2020.

Details About the Papers Considered in the Review

Table 2: Type of Studies

<i>Paper Type</i>	<i>No. of Citations</i>
Review paper	21
Empirical paper	81
Qualitative paper	14

Source: Compiled by the authors.

It is evident from Table 2 that the majority of the research work in this area is in the form of empirical research papers.

Table 3: Statistical Tools Used for Drawing Inferences

<i>Statistical Tools Used</i>	<i>No. of Citations</i>
Mean, percentage and ratio	12
Regression	13
Chi-square	4
T-test	7
Chronbach's alpha	10
ANOVA	6
Correlation	10
Factor analysis	9
Standard deviation	8

Source: Compiled by the authors.

Table 3 shows that regression analysis is the most popular statistical tool followed by descriptive statistics such as

mean, percentage, ratios and correlation. Cronbach's α has also emerged as a significant tool to test the reliability of the instrument.

Table 4: Sample Size Used in Studies

<i>Sample Size</i>	<i>No. of Citations</i>
Below 300	60
300–500	25
500–1000	6
1000–5000	5

Source: Compiled by the authors.

It is clear from Table 4 that less than 300 is the sample size chosen by majority of the scholars to conduct their studies.

FACTORS AFFECTING PATIENT'S PERCEPTION OF SERVICE QUALITY OF A HEALTHCARE UNIT

Gheorghe et al. (2013) found that most of the time, patients' perceptions have increasingly become an important element in determining the service quality in the context of healthcare services. Customers' loyalty towards service quality is difficult to quantify. However, there is a statistically significant link between satisfaction and loyalty (Kessler & Mylod, 2011). The factors influencing the service quality of a healthcare unit are identified as follows:

- *Hospital's Brand Image*: Rostami et al. (2019), Zhou et al. (2017), and Caruana (2002) identified hospital brand image or reputation as one of the most contributing factors to loyalty.
- *Reliability*: Meesala and Paul (2016); Kansra and Gupta (2016); Arun et al. (2012); Al-Daoar and Zubair (2018); Zhou et al. (2017); and Zaim et al. (2010) found that the reliability of services affects patients' satisfaction towards the service quality of healthcare unit. Kansra and Gupta (2016) found that reliability is relatively more important in the case of public hospitals than private hospitals. Tharanga et al. (2018) suggest that reliability dimensions were the most expected by patients.
- *Responsiveness*: Meesala and Paul (2016); Kansra and Gupta (2016); Arun et al. (2012); and Al-Daoar and Zubair (2018) revealed that responsiveness impacts patients' satisfaction towards the service quality of healthcare unit. Kansra and Gupta (2016) further observed that responsiveness of services is weighted more in the case of private hospitals than public hospitals. Anbori et al. (2010) opined that responsiveness have lesser role in the patients' loyalty and willingness to go back to the same facility, whereas Taqdees and Shabbir (2018) found that responsiveness is positively related with the patient loyalty which is mediated through patient satisfaction.
- *Tangibility*: Rehman and Husnain (2018); Arun et al. (2012); Kim et al. (2017); Zaim et al. (2010); and Choudhury and Singh (2021) revealed that the most important factor that impact on service quality dimension are physical facilities, equipment, and appearance of personnel. Calabrese (2012) also emphasized on technical devices availability, information technologies employment, etc. Kansra and Gupta (2016) found that for public hospitals, service quality depends on the tangibility of services. However, Al-Daoar and Zubair (2018) found that patient satisfaction was not significantly influenced by tangible dimensions. Sweta and Suresh (2015) found that the majority of the patients were satisfied with the facilities provided in the hospital, physicians' quality care and the quality care by the nurses. Anbori et al. (2010) opined that tangibility has lesser role in the patients' loyalty and willingness to go back to the same facility. However, Kim et al. (2017) and Kondasani and Panda (2015) found that the quality of facilities has a positive effect on customers' loyalty.
- *Empathy*: Gray and Boshoff (2004), Zaim et al. (2010), and Arun et al. (2012) stated that caring and individualized attention the firm provides to its customers which is known as empathy is one of the most important factors of SERVQUAL model that impact on service quality. However, Al-Daoar and Zubair (2018) found that patient satisfaction was not significantly influenced by empathy dimensions. Anbori et al. (2010) and Naik and Anand (2016) suggest that in addition to "patient satisfaction", the only Healthcare Service Quality (HCSQ) dimension that directly affects behavioural intention is "empathy".

- *Assurance*: Gray and Boshoff (2004), Lin, Xirasagar and Laditka (2004), Al-Daoar and Zubair (2018), and Zaim et al. (2010) found that the patient satisfaction was not significantly influenced by the assurance dimension. Kansra and Gupta (2016) and Biswas and Verma (2022) revealed that customer satisfaction towards service quality of private hospitals depends on assurance of services.
- *Value/Ethics of Consumers*: Zhou et al. (2017) identified that patient loyalty may be positively influenced by the value and ethics practiced by the hospital.
- *Privacy and Safety*: Taqdees et al. (2018) revealed that the healthcare service quality aspects such as privacy and safety are positively related with patient loyalty which is mediated through patient satisfaction.
- *Hospital Support*: Baalbaki et al. (2008) and Peltier et al. (2002) argued that patient's perception towards the service quality of hospital is significantly influenced by hospital support functions.
- *Distance*: Ana et al. (2014) and Rostami et al. (2019) concluded that the distance the patient has to cover to be served influence patients' perception of the service quality of the hospital.
- *Organizational Citizenship Behaviour (OCB)*: Organizational citizenship behaviour (OCB) is a person's voluntary commitment within an organization that is not part of his/her contractual tasks. Zhou et al. (2017) identified that patient perception towards hospital's service quality may be influenced by OCB.
- *Regularity and Quality of Services*: Kansra and Gupta (2016) stated that customer satisfaction in respect of service quality in public hospitals depends upon the regularity of services. Rostami et al. (2019) and Caruana (2002) found that the quality and quantity of delivered services play an important role in retaining the customers.
- *Treatment Effectiveness*: Kim et al. (2017) found that treatment effectiveness positively affected perception regarding the service quality of medical service. Kansra and Gupta (2016) stated that customers' perception towards service quality in public hospitals depends upon treatment effectiveness.
- *Employees and Organizational Efficiency*: Calabrese (2012) argued that both high service productivity and a high customer perceived quality are two main drivers of good performances in service companies and they simultaneously occur as a consequence of a synergy of several drivers such as employees' competences and motivation, organizational efficiency, etc. Mahadi et al. (2017) found that employee satisfaction is positively related to improving service quality.
- *Effective Communication*: Rostami et al. (2019), Taqdees et al. (2018), Nkrumah et al. (2015), and Kondasani and Panda (2015) found that the interaction with supporting staff, provision of information to patients, etc., have a positive effect on customers' loyalty and customers view it as a good indicator of service quality.
- *Environment*: Kim et al. (2017), Rostami et al. (2019), Taqdees et al. (2018); Mosadeghrad (2014), and Fatima et al. (2018) confirmed that physical environment, customer-friendly environment and broader environment are positively related with patient satisfaction and their perception towards the service equality. Kimuyu (2012) showed that the hospital environment promotes positive feelings within consumers and influences positive feelings about its service quality.
- *Relation between Patient and the Service Provider*: Mosadeghrad (2014) concluded that quality in healthcare is a production of cooperation between the patient and the healthcare provider in a supportive environment. Nkrumah et al. (2015) found that factors that led to better service quality were effective human relations from staff (doctors, pharmacists, nurses, and other staff). Further, Nkrumah et al. (2015), Kondasani and Panda (2015) found that the service seeker-service provider relationship has a positive effect on patients' perception of hospital's service quality.
- *Demographic Factors*: Meesala and Paul (2017) found that marital status and age have no impact on patients' satisfaction; however, it was found that to some extent gender does. Ahmed et al. (2017) observed that single patients perceive tangibles, reliability, empathy and loyalty higher compared to married patients. Young patients less than or equal to

20 years have higher tangibles, empathy and loyalty scores compared to other age groups.

- *Waiting Time:* Kimuyu (2012) showed that the attractiveness of waiting time in offering medical services has an effect on customers' perception towards its service quality and that the lesser the waiting time, the better the service quality is.
- *Services Before the Treatment:* Ismail and Duman (2006) revealed that services before the treatment was a significant determinant of perceived service quality by the patients at public hospitals.
- *Cost of Medical Services:* Kimuyu (2012) and Allahham (2013) show that perceived value of price of medical services has a positive effect on consumer's perception of service quality of healthcare unit if healthcare institutions have to compete through consumer satisfaction. Rostami et al. (2019) and Anbori et al. (2010) stated that the willingness to go back to the same facility is affected by the level of improvement in the cost.
- *Education Level:* Ana et al. (2014) concluded that the education level of the patient influences his/her perception of the service provided affect his/her loyalty towards the healthcare unit.
- *Patients' Involvement:* Naidu (2009) stated that patient involvement is an inherent feature in healthcare services whereby he or she influences outcome quality through compliance, describing the right symptoms and physically undergoing treatment.
- *Conduct of the Hospital Healthcare Providers:* Nkrumah et al. (2015) and Kimuyu (2012) showed that the conduct and performance of the hospital healthcare providers largely influence the level of perceived service quality in healthcare. Mosadeghrad (2014) concluded that personal factors of the provider and the patients affect healthcare service quality.
- *Functional Quality:* Gronroos (1993) demanded an acceptable functional quality to ensure that the consumers favourably perceive the quality of services offered. Customer-oriented physical resources and technical resources, as well as the accessibility of the firm's services, the consumer orientation of self-service systems, and the firm's ability to maintain a continuous contact with its customers are examples of ways of influencing the functional quality dimension.

Zhou et al. (2017) and Caruana (2002) identified that patient loyalty is positively influenced by the quality of service provided by the healthcare unit.

Thus, considering the above-mentioned factors, it can be said that favourable perception towards service quality of healthcare unit results from the positive customer experiences which starts with the first contact and continues through the whole relationship. It is a journey which makes the customer feel happy, satisfied, and justified with a sense of being respected, served, and cared for in accordance with his/her own expectations or standards (Varma, 2012).

The number of citations of existing literature regarding factors affecting patients' perception towards the service quality of healthcare units is mentioned in Table 5.

Table 5: Number of Citations Regarding Factors Affecting Patients' Satisfaction towards the Service Quality of a Healthcare Unit

<i>Determinants</i>	<i>Citations</i>
Hospital's brand image	3
Reliability	8
Responsiveness	7
Tangibility	11
Empathy	6
Assurance	6
Value/Ethics of consumers	1
Privacy and safety	1
Hospital support	2
Distance	2
Organizational citizenship behaviour	1
Regularity and quality of services	3
Treatment effectiveness	2
Employees and organizational efficiency	2
Effective communication	4
Environment	7
Relation between patient and the service provider	3
Demographic factors	2
Waiting time	1
Services before the treatment	1
Cost of medical services	4
Education level	1
Patients' involvement	1
Conduct of hospital healthcare providers	3
Functional Quality	3

Source: Compiled by authors from various sources.

IMPACT OF SERVICE QUALITY

The impacts of quality of service on the healthcare unit, as identified by different authors, are given below:

- *Increased Customers' Satisfaction:* Lim et al. (2018), Neupane and Devkota (2011), and Al-Daoar and Zubair (2018) concluded that there is a significant and positive relationship between patient satisfaction and service quality. Kimuyu (2012) further states that customer satisfaction results from the provision of services that meet or exceed customer needs. Neupane and Devkota (2011) further indicated that there is a high level of service quality leading to high level of patient satisfaction at the private hospitals in Nepal.
- *Greater Patients' Loyalty:* Favourable perception towards service quality leads to customer loyalty. Zhou et al. (2017) and Kim et al. (2017) identified that patient loyalty may be positively influenced by positive perception towards the service quality of hospital. Gray and Boshoff (2004) states that the customers' perception towards dimensions such as meals, behaviour of nursing staff and fees, all impact positively on both loyalty and cumulative satisfaction. They further observed that the service quality dimensions such as empathy of nursing staff and assurance impact positively on both loyalty and cumulative satisfaction. Afridi and Haider (2018), Amin and Nasharuddin (2013), and Neupane and Devkota (2011) concluded that service quality effects patients' loyalty when patients' commitment mediates. Arun et al. (2012) found that the best services with the patients have led to customer loyalty. Wu (2011) reveal that service quality indirectly affects re-visit intention through patient satisfaction. Naik and Anand (2016) suggest that in addition to "patient satisfaction", the only Health Care Service Quality dimension that directly affects behavioural intention is "empathy". Fatima et al. (2018), Taqdees et al. (2018), and Rostami et al. (2019) confirmed that better quality of healthcare services, environment and many other factors incline to build satisfaction and loyalty among patients. Moliner (2009) stated that the main antecedents of loyalty are trust and satisfaction.
- *Efficient Financial Performance:* Lim et al. (2018) concluded that service quality affected the financial performance. Ravishankar et al. (2018) stated that the hospitals which are working for a better life for their patients by providing good quality services will be the one to get more profit and the way of treating their patients with more attention and care towards them will be praised and reminded by them for a longer duration, which, in turn, leads to an increase in the number of patients seeking better health quality services.
- *Overall Performance:* Kenagy et al. (1999) illustrate that high-quality service would improve clinical outcomes and patient and physician satisfaction while reducing cost, and it would create competitive advantage for those who are expert in its application.
- *Increased Number of the Customers:* Ravishankar et al. (2018) and Gheorghe et al. (2013) stated that the way of treating their patients with more attention and care will result into more inflow of patients in future.
- *Hospital Reputation:* Gheorghe et al. (2013) found that better service quality determines hospital reputation, influences future patient demands, and is integral to the understanding of patients.
- *Word of Mouth (WOM) Publicity:* Chaniotakis and Lymperopoulos (2009) suggested that, in addition to "satisfaction", the only service quality dimension that directly affects Word of Mouth, is "empathy". In addition, "empathy" affects "responsiveness", "assurance" and "tangibles," which, in turn, have only an indirect effect to WOM through "satisfaction". According to Jarrad et al. (2021), administration quality appeared as the most influential factor leading to WOM. Thus, Word of mouth is a very important promotion tool to share the service quality in a hospital with other people (Kitapci et al., 2014).

It can be inferred that service quality plays a major role in order to retain existing customers and acquiring new ones, reducing costs, enhancing corporate image, generate positive word-of-mouth recommendations, and improving profitability.

A citation analysis report is given in Table 6 indicating the number of citations with respect to the impact of service

quality on several aspects of the healthcare sector and it is evident that bringing greater customer loyalty is one such area that is highly addressed by the researchers.

Table 6: Number of Citations Regarding the Impact of Service Quality on Healthcare

<i>Particulars</i>	<i>Citations</i>
Increased customers' satisfaction	4
Efficient financial performance	2
Greater patient loyalty	14
Increasing customers	2
Hospital reputation	1
Word of mouth publicity	2

Source: Compiled by authors from various sources.

DIMENSIONS OF SERVICE QUALITY

The first pioneering work to quantify service quality was done by Parsuraman (Gap model), which led to the listing of the ten factors of service quality- competence, courtesy, credibility, security, access, communication, knowing the customer, tangibles, reliability, and responsiveness (Parsuraman et al., 1985). Further research and testing suggested that some of these ten preliminary dimensions of service quality were closely related (Parsuraman et al., 1991) and hence, these were condensed into five overall dimensions of service quality (SERVQUAL Model: reliability, assurance, tangibles, empathy, and responsiveness). In addition, the several dimensions of service quality in respect of a healthcare unit, as identified by different authors, are given below:

- *Cost of Services*: Rostami et al. (2019) found that the cost of services is one of the dimensions of service quality.
- *Delivered Services*: Rostami et al. (2019) and Amin and Nasharuddin (2013) confirmed 'delivered or overall services' as a distinct construct of hospital service quality.
- *Accessibility*: Rostami et al. (2019) and Parsuraman (1985) found that access to physicians and health care institutions is a key dimension of service quality.

- *Provision of Information to Patients*: Rostami et al. (2019) indicated that the provision of information to patients is one of the dimensions of service quality.
- *Acquaintance*: Rostami et al. (2019) revealed that acquaintance with hospitals is one of the service quality dimensions.
- *Facilities in the Hospital*: Sweta and Suresh (2015) identified facilities provided as one of the dimensions of service quality.
- *Quality Care*: Sweta and Suresh (2015) stated that quality care by the physicians and nurses is a service quality dimension.
- *Responsiveness*: Taqdees et al. (2018), Mosadeghrad (2014), and Parsuraman (1991) recognized that responsiveness is a significant dimension of service quality in healthcare sector.
- *Communication*: Taqdees et al. (2018) and Donabedian (1966) revealed that how the provider interacts with clients during visits is a service quality dimension.
- *Privacy and Safety*: Taqdees et al. (2018) identified privacy and safety as a significant dimension of service quality.
- *Environment*: Mosadeghrad (2014), Rostami et al. (2019), Taqdees et al. (2018), and Donabedian (1966) stated that the environment (physical and customer-friendly) is an important dimension of service quality.
- *Empathy*: Parsuraman (1991), Mosadeghrad (2014), and Choudhury et al. (2020) considered empathy as one of the important dimensions of the service quality.
- *Assurance*: Wu (2011) and Parsuraman (1991) stated that it is important to assure patients that they will obtain their desired level and quality of services.
- *Efficiency and Effectiveness*: Mosadeghrad (2014) found efficiency as a dimension of service quality.
- *Outcomes*: Donabedian (1966) found 'outcomes' as one of the healthcare service qualities.
- *Admission*: Amin and Nasharuddin (2013) identified admission as a service quality dimension.

- *Discharge and Social Responsibility:* Amin and Nasharuddin (2013) confirmed that ‘discharge and social responsibility’ is a distinct construct for hospital service quality.

Table 7: Number of Citations Regarding Dimensions of Service Quality

<i>Particulars</i>	<i>Citations</i>
Cost of service	1
Delivered services	2
Accessibility	2
Information to patients	1
Acquaintance	1
Facilities in the hospital	1
Quality care	1
Responsiveness	3
Communication	2
Privacy and safety	1
Environment	4
Empathy	2
Assurance	2
Efficiency and effectiveness	1
Outcome	1
Admission	1
Discharge and social responsibility	1

Source: Compiled by authors from various sources.

MEASURES TO IMPROVE SERVICE QUALITY IN THE HEALTHCARE SECTOR

When a service provider knows how the service will be evaluated by the consumer, it is possible to suggest how to influence these evaluations in desired directions (1982). Once the need for improving the service quality is established, it is necessary to identify the measures to improve the service quality in the healthcare industry. Several scholars have identified several means to improve the service quality in the healthcare sector which are listed below:

- *Improving Facilities:* Riono and Ahmadi (2017) and Gheorghe et al. (2013) observed that most consumers evaluate a service on the basis of tangible elements such as equipment and technology, employees’ appearance, cleanliness of the bathroom and availability of clean water, etc.

Therefore, the marketing managers should invest in improving tangible dimensions to enhance customer satisfaction.

- *Behaviour of the Service Providers:* Kimuyu (2012) and Suhail and Srinivasulu (2021) concluded that the medical service providers should act with integrity, being polite, friendly, offer personalized medical care and be interested in patient needs so as to positively influence customer satisfaction.
- *Patient-Centred Strategies:* Meesala and Paul (2016) and Vogus and McClelland (2016) found that the healthcare should be patient centred and take into account cultures and preferences of users. Padma et al. (2010) stated that the hospital service providers have to understand the needs of both patients and their attendants in order to gather a holistic view of their services.
- *Improving Communication Skills:* Lee et al. (2012), Mosadeghrad (2014) and Suhail and Srinivasulu (2021) showed that patients pay most attention on “physician care” and have less concern with “hospital costs”. Healthcare managers need strategies to train physicians’ and nurses’ communication skills in order to enhance service quality.
- *Efficient Operations:* Lee et al. (2012) and Mosadeghrad (2014) concluded that hospitals can improve customer satisfaction and loyalty through proper planning and efficient operations.
- *Employees and Processes:* Mosadeghrad (2014) and Lee et al. (2012) concluded that hospitals can improve customer satisfaction and loyalty through effective employee engagement and complete processes.
- *Availability of Doctors and Nurses:* Riono and Ahmadi (2017) discussed that the policy strategy that can be taken by hospital management to improve the quality of service was prioritizing service quality improvement on attribute such as the availability of doctors and nurses at the time of patient need.
- *Fast and Accurate Services:* Riono and Ahmadi (2017) found that health-care givers’ responsiveness and reliability in the form of fast and accurate treatment will improve perceived service quality.

- *Quality Management Model*: Globenko and Sianova (2009) developed the combined quality management model that involves TQM values, methodologies and tools from TQM, Lean and Six Sigma that could be adopted for improving specific aspects from the aligned and combined perception relative to specific circumstances of healthcare organizations.
- *Lean Management*: Mahadi et al. (2017) found that the simplified and standardization of processes and lean management are able to eliminate unnecessary workload and increase employee satisfaction that leads to resulting positive customer satisfaction for organization.
- *Visionary Leadership*: Mosadeghrad (2014) concluded that healthcare quality can be improved if the leader adopts supportive vision and executes with proper planning.
- *Effective Resource Management*: Mosadeghrad (2014) stated that healthcare service quality can be upgraded if the resources are availed and managed effectively.
- *Coordination among Providers*: Mosadeghrad (2014) found that proper coordination and cooperation among service providers is key to improved healthcare service quality.
- *Environment*: Gheorghe et al. (2013) advocate for improving the environment of the healthcare unit for greater service quality. Fottler et al. (2000) stated that an excellent healing environment will reinforce excellent clinical quality, but an inferior environment can detract from fine clinical care. It is vital to create an environment that meets or exceeds customer needs for safety, security, support, competence, physical comfort, and psychological comfort.
- *Price*: Gheorghe et al. (2013) observed that customer satisfaction can be achieved through price satisfaction.
- *HIS & CRM*: Hung et al. (2010) proposed the adoption of Hospital Information System (HIS) and Customer Relationship Management (CRM).

The number of citations in respect of measures to improve service quality in healthcare is given in Table 8.

Table 8: Number of Citations Regarding Measures to Improve Service Quality in the Healthcare Unit

<i>Particulars</i>	<i>Citations</i>
Improving facilities	1
Behaviour of service providers	2
Patient-centred strategies	1
Improving communication skills	2
Efficient operations	2
Employees and processes	2
Availability of doctors and nurses	1
Fast and accurate services	1
Quality management model	1
Lean management	1
Visionary leadership	1
Effective resource management	1
Coordination among providers	1
environment	2
Price	1
HIS & CRM	1

Source: Compiled by authors from various sources.

CONCLUSION, IMPLICATIONS AND LIMITATIONS

Providing high-quality services is imperative for the success of any organization in this era of globalization and competitiveness (Biswas & Verma, 2022). Thus, this study finds and suggests that if an organization desires to survive for a longer period it is imperative to do persistent investigation of its service quality. There also needs to be a proper synchronization between the patient expectation and the perception of the management. Singh et al. (2020) have worked upon six new dimensions using Fuzzy analytical hierarchical process and termed it as 'HealQual' for catering to the current scenario. So, managers must continue doing the environmental scanning to understand the recent trends in customer taste. Health service quality perceptions are antecedents to patient satisfaction which in turn decide whether patients are loyal to healthcare providers (Naidu, 2009; Suhail & Srinivasulu, 2021). There is a need to improve service quality in healthcare units to bring patients' loyalty and expanding the market share (Arab et al., 2012), increasing profit and bringing more patients (Ravishankar et al., 2018). Service quality needs to be improved to assure the patient of getting desired level of medical service (Wu, 2011). However, there exists an overall service quality gap between

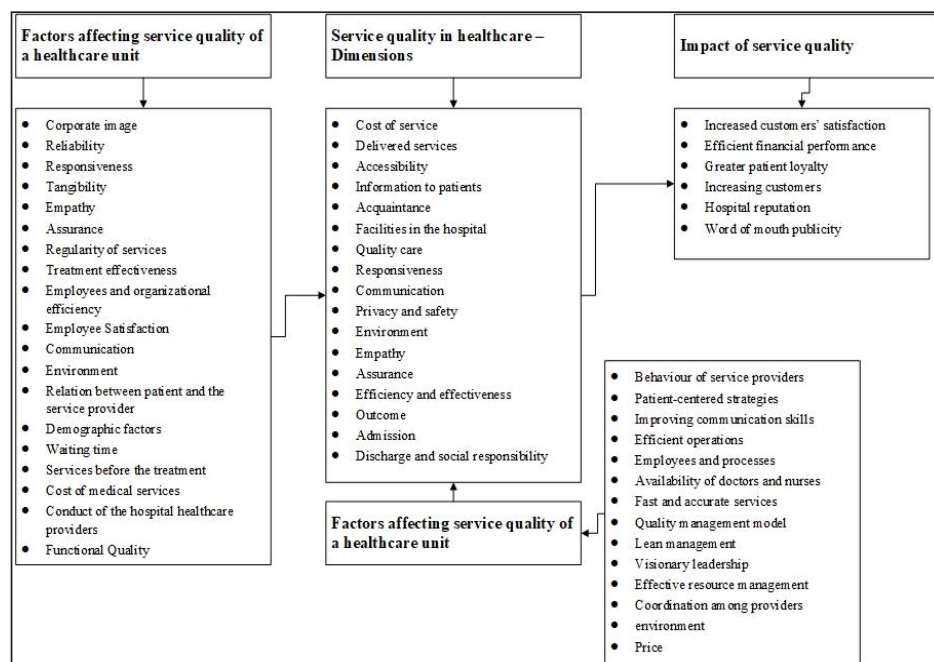
patients' perceptions and their expectations and there is a need to improve service quality across all the dimensions identified in the study (Ranjith, 2018; Lim & Tang, 2000; Aghamolaei et al., 2014). This may require modification or deletion of the previous dimensions of service quality (Khambhati, 2017) or the addition of a new dimension (Carman, 1990). Hence, service quality is one of the most important success factors for healthcare industry and it must be upgraded according to the changing environment and needs of the patients and emphasis should be on creating greater customer experiences. A Kaleidoscopic view of the research in the area of service quality in respect of healthcare unit is given in Fig. 3. This framework enables healthcare service-providers to understand how patients and their attendants evaluate the quality of healthcare services provided in respect of every dimension. Healthcare administrators can use the instruments proposed to obtain feedback on their performance on service quality parameters so that they can benchmark themselves with their competitors. Based on the citation analysis, a special focus on efficient operations apart from employees related processes needs to be given for a better efficiency and output.

The future scope of the study lies in exploring various other service quality models available in the literature. Selection of appropriate model that satisfies service quality along with customer loyalty is the key to the successful implementation of quality management in healthcare

organizations. The analysis and analytical evaluation can help to determine the mechanisms and causal relationships with the discussed factors in implementation processes with the following research agenda implications.

Research Implications

The factors affecting the service quality, its dimensions and the impact of service quality on the healthcare sector are identified, however, to ascertain their relative worth an empirical study is required. There is a need to prepare a suitable scale, which is valid as well as reliable, to measure the factors, dimensions and impact of service quality. A suitable scale can be prepared to measure the various dimensions of service quality in the context of healthcare as it was done by Choudhury and Singh (2015a) to measure reliability, Choudhury and Singh (2015b) to measure responsiveness; Choudhury and Singh (2016) to measure assurance dimension. The factors and impact of service quality on patients are not uniform across the globe and therefore, comprehensive research is required to be taken up and in order to generalize the findings more cross-sectional and longitudinal study is required. This paper evaluates and proposes future directions in this pertinent field. An extensive review of literature in this area not only identifies prevalent areas and clusters in existing research but also compares and contrasts on service quality in healthcare as an emerging field.



Source: Compiled by the authors.

Fig. 2: Research Framework of Service Quality in the Area of Healthcare

Social Implications

Healthcare is an important ingredient of a healthy society. Providing quality service is important and this paper highlights the dimensions of service quality that need to be popularized so that the general public can ask the service providers to provide for the abovementioned quality of services. Creating awareness is the first step toward creating a need for the desired change in the society (Bhattacharjee & Singh, 2017; Bordoloi et al., 2020). The customer and other stakeholders need to understand the various antecedents which are involved in the service quality in Health sector so that their suggestion(s) can be incorporated for better service quality (Singh & Bhowal, 2010).

Managerial Implications

This paper identifies various dimensions and factors affecting the service quality of the healthcare sector which needs to be improved by the managers in order to improve the perception of patients towards the service quality. A set of values with regards to service quality in healthcare is to be maintained in respect of healthcare industry which incorporates the vision and mission of the healthcare industry. The customer-related service is to be improved through adopting appropriate human resource policy. The selected factor performance is to be monitored through an external feedback system to enhance the service productivity. The adoption of such comprehensive and enterprise-wide framework for hospitals will have managerial implications as well. Further, it has to provide the necessary training to the personnel, so that they have the required skill-set for smooth implementation of the framework (Tiwari & Singh, 2018b; Singh et al., 2019). The timely understanding of the employees needs and preferences can also help in improving the employer branding of the organization. As an happy and satisfied employee leads to a satisfied consumer, this practice is of utmost importance in the service sector (Singh et al., 2020). The proper usage of CRM and HIS should be ensured by the managers as it will lead to a more coordinated and connected system. Even social media usage like Facebook and their online reviews of experiences in the hospitals should be tapped for improvement (Zaman et al., 2020).

Policy Implications

The paper highlights several factors and dimensions of service quality. The policymakers should incorporate these factors and dimensions while framing policies with respect to the healthcare sector in India. Purohit (2001) confirms that the new emerging market environment in India is limited with respect to efforts in services. This should optimize in such manner so as to avoid undesirable consequences of rising healthcare costs, for wealth inequality and exploitation of consumers.

Limitations

Like any research, this study also has some limitations. The literature has been extracted from only few database sources, i.e., EbscoHost, Science Direct, Web of Science, Taylor & Francis and Emerald. Hence, we might have neglected some additional knowledge, and therefore the identified issues and proposed research avenues are by no means exhaustive. The authors tried to be very systematic and accurate in selecting articles, but some shortcomings remain that future studies could overcome.

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