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# A SERVQUAL-Based Assessment of Healthcare Services in Government Hospitals

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**Abstract**

Hospital healthcare service quality measurement represents an important approach for advancing healthcare systems. Using government hospitals offers several benefits and can be crucial for many individuals, especially in specific contexts. Affordability, Accessibility, Comprehensive Services, Public Health Initiatives, Training and Research, Emergency Care, Support for Low-Income Families, Regulatory Oversight, Crisis Response, these are the main reasons why government hospitals are more important. The persistence of this paper is to examine user recognition, service quality & patient's satisfactions using TAM, SERVQUAL approach as model of research. Research oriented data were obtained by using structured interview schedule. For the study, 160 respondents patients from government hospitals were chosen. The tackles or software used to analyze data is SPSS.

**Keyword***:* Acceptance Model, SERVQUAL, Service Quality, Patient's Satisfaction

## I. Introduction

Health care consumers today, are more sophisticated than in the past and now demand increasingly more accurate and valid evidence of health plan quality. Patient-centered outcomes have taken center stage as the primary means of measuring the effectiveness of health care delivery. It is commonly acknowledged that patients' reports of their satisfaction with the quality of care and services, are as important as many clinical health measures. Health care organizations are operating in an extremely competitive environment, and patient satisfaction has become a key to gaining and maintaining market share.

Government hospitals are a cornerstone of the healthcare system, offering essential medical services to diverse populations at affordable costs. They are crucial for ensuring that healthcare is accessible to everyone, particularly those in underserved or low-income communities. By providing a wide range of services, from emergency care to specialized treatments, government hospitals play a energetic role in maintaining public health and addressing health disparities. They also contribute to medical learning and research, often collaborating with academic institutions to exercise the next generation of healthcare professionals and advance medical knowledge. Additionally, government hospitals are instrumental in responding to public health emergencies and crises, demonstrating their importance in both routine and urgent care scenarios.

## II. Literature Review

Lee, DonHee (2017) This study looks at the metrics for measuring healthcare service quality that have been suggested by earlier research, by quality recognition programs, and by systems of service quality accreditation and/or certification around the world. He created a thorough set of HEALTHQUAL (healthcare service quality) measurement measures with an emphasis on the methods and outcomes of care. The study looked at the relative importance of the nine measuring items that 368 patients and 389 members of the general public in South Korea had suggested. According to the findings, both groups ranked tangibles as second most essential and the level of care improvements as first. The HEALTHQUAL model that was suggested included the following five elements: empathy, tangibles, safety, efficiency, and degree of care service improvements.

Md Shahed Mahmud et al (2021), proposed study to explore the outbound medical tourists' satisfaction and loyalty on the basis of the quality of the health-care service provided by foreign medical institutions. The medical tourists from Bangladesh who have got medical services from Indian medical institutions were taken as a sample by applying a purposive sampling technique. For the measurement of outbound medical tourists' satisfaction, the dimensions of the HEALTHQUAL model were adopted. Darbar et al. (2024) A self-administrated questionnaire was the major tool for collecting data from the respondents. Using partial least square-structural equation model multivariate statistical technique and with the aid of SmartPLS software, primary data collected from 218 final respondents were analyzed. The findings of this study reveal that four dimensions of the HEALTHQUAL model, namely, empathy, tangibility, efficiency, and safety have a significant positive impact on building medical tourists' overall satisfaction, and then the overall satisfaction also has a positive level of significance on building loyalty towards foreign medical service providers.

Aaron Abuosi et al (2013), proposed study to examine two key issues: to assess patients' hospital service quality perceptions and expectation using SERVQUAL; and to outline the distinct concepts used to assess patient perceptions. Questionnaires were administered to 250 patients on admission and follow-up visits. The 22 paired expectation and perception items from the SERVQUAL were used. The data were analyzed using factor analysis with Varimax rotation and repeated t tests. Results indicated that throughout medical treatment, patient expectations were not being satisfied. For all categories, perceived service quality was rated lower than expected.

## III. Conceptual Model

The result of starting this model research was exposed in Figure 1. In general, this model had nine variables (constructs), with 4 independent variables and 5 dependent variables are as shown in Figure 1.

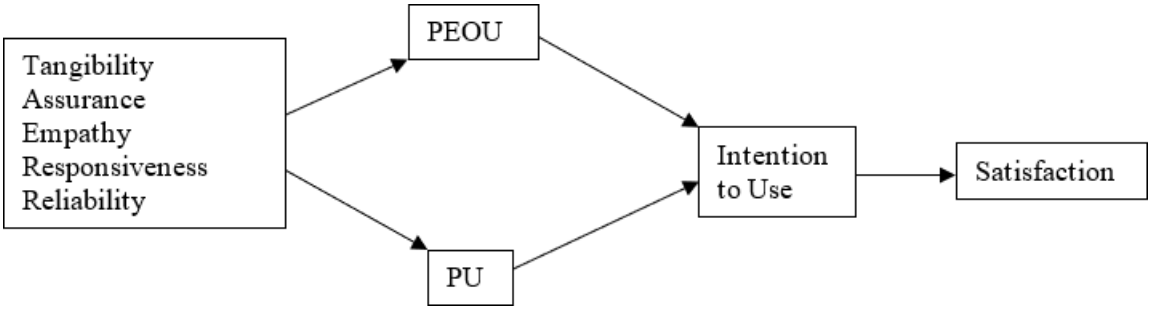


**Figure 1: Research Model Construction**

This model integrates the SERVQUAL dimensions of service quality with the Technology Acceptance Model (TAM) to explain how service quality influences patients' intention to use healthcare services and their overall satisfaction.

**1. Service Quality Dimensions (Independent Variables)**

The five dimensions on the left side represent the quality of services provided by government hospitals. Tangibility – Physical facilities, medical equipment, cleanliness, infrastructure, and appearance of staff. Assurance – Knowledge, competence, courtesy, and trustworthiness of doctors, nurses, and hospital staff. Empathy – Individualized attention, care, concern, and understanding shown to patients. Responsiveness – Willingness of staff to help patients promptly and provide timely services. Reliability – Ability of the hospital to provide accurate, dependable, and consistent healthcare services.

**2. Perceived Ease of Use (PEOU)**

The model proposes that high-quality healthcare services positively influence Perceived Ease of Use (PEOU). PEOU refers to the extent to which patients believe that accessing and utilizing hospital services is simple, convenient, and free from difficulties. For example: Easy registration procedures, Clear communication from staff, Convenient appointment systems, Simple navigation within the hospital, When hospitals provide reliable, responsive, and empathetic services, patients perceive the healthcare process as easier to use.

**3. Perceived Usefulness (PU)**

The SERVQUAL dimensions also influence Perceived Usefulness (PU). PU refers to the degree to which patients believe that the hospital services improve their health outcomes and meet their healthcare needs effectively. Examples includes Effective treatment and diagnosis, Improved health conditions, Reduced waiting time, Quality medical advice and support, When patients experience reliable and competent healthcare services, they perceive the hospital as useful and beneficial.

**4. Intention to Use**

Both PEOU and PU influence the patient's Intention to Use the hospital services. A patient who finds hospital services like Easy to access (PEOU), and Beneficial and effective (PU), is more likely to continue using the hospital in the future, recommend it to others, and prefer it over alternative healthcare providers. This stage acts as a mediating factor between service quality perceptions and patient satisfaction. These above said dimensions collectively determine patients' perceptions of the hospital's service quality.

## IV. Methodology

**Population and Sample design**

The population of this study area was both inpatients and out patients of Virudhunagar Government hospital consisting of 160 people. Patients of Government Hospitals are declared as respondents for the research. Hence the sample of 20 respondents (both inpatients and outpatients) are selected from each Government Hospital with the help of Judgment Sampling Technique, throughstructured interview schedule. The details of the hypotheses and the sample numbers for this study were exposed in Table 1 and Table 2.

**Table 1. Sample size**

| No | List of Taluk with Govt. Hospital | Samples |
|---|---|---|
| 1. | Rajapalayam | 20 |
| 2. | Srivilliputtur | 20 |
| 3. | Sattur | 20 |
| 4. | Sivakasi | 20 |
| 5. | Virudhunagar | 20 |
| 6. | Aruppukottai | 20 |
| 7. | Tiruchuli | 20 |
| 8. | Kariapatti | 20 |
| | **Total** | **160** |

**Table 2. Hypotheses**

| | |
|---|---|
| 1: | erceived ease of use has a substantial influence on perceived usefulness |
| 2: | erceived usefulness has a significant influence on behavioral intention |
| 3: | ervice quality has a major influence on user satisfaction |
| 4: | atient satisfaction has a significant effect on behavior intention of patients |

## V. Data Analysis

### Socio economic profile of the Respondents

The present study confines the Socio- economic profile of 160 respondents age, educational qualification, gender, monthly income, occupation and Area of Residence. Parameters, frequency and their percentage of different variables are tabulated under Table

**Table 3. Socio economic profile of the Respondents (Percentage Analysis)**

| S.No | Variables | Parameters | Frequency | Percentage (%) |
|---|---|---|---|---|
| 1. | Gender | Male | 90 | 56.25 |
| | | Female | 70 | 43.75 |
| | | **Total** | **160** | **100** |
| | | Below 20 | 18 | 11.25 |

| | | | | |
|---|---|---|---|---|
| 2. | Age | 21-30 | 24 | 15.00 |
| | | 31-40 | 49 | 30.65 |
| | | 41-50 | 41 | 25.60 |
| | | Above 50 | 28 | 17.50 |
| | | **Total** | **160** | **100** |
| 3. | ducation | Illiterate | 17 | 11.33 |
| | | Primary level | 56 | 30.67 |
| | | High school | 54 | 36.00 |
| | | Graduate | 29 | 19.33 |
| | | Post graduate & Profession | 04 | 2.67 |
| | | **Total** | **160** | **100** |
| 4. | lonthly Income | Up to 10000 | 47 | 31.33 |
| | | 10000-20000 | 84 | 56.00 |
| | | 20000-30000 | 24 | 9.33 |
| | | 30000-40000 | 03 | 2.00 |
| | | Above 40000 | 02 | 01.34 |
| | | **Total** | **160** | **100** |
| 5. | Occupation | Agriculture | 19 | 12.67 |
| | | Government Employee | 10 | 06.67 |
| | | Private Employee | 63 | 42.00 |
| | | Business | 28 | 18.67 |
| | | Student | 17 | 11.33 |
| | | House wife | 23 | 8.66 |
| 6. | Area of Residence | Rural | 98 | 65.33 |
| | | Urban | 62 | 34.67 |
| | | **Total** | **160** | **100** |

**Source: Computed Prime Data**

Above table-3 reveals that Male respondents (56.25%) are greater than Female respondents. Majority of the patients are in Age crowd of 41- 50 (30.65%). Most of the respondents are studied up to High School (36%) as compared to other educational groups. Majority of the patient's monthly income of the family was fall under Rs. 10,000 – Rs. 20,000 (56%). Majority of the patients are working as a private employee (42%). Majority of the

respondent's residential area is rural area (65.33%). This study was used interview schedule to collect data from the patients of government hospitals, which was restrained by using Likert scale from 1 (strongly disagree) to 5 (strongly agree).

## VI. Results

### 1.Measurement Model Analysis

This model analysis requires relationship between latent variables and their signs through testing of construct reliability and validity of research tools.

### a.Validity of Convergent

This is the value of factor loading of latent variable with its signs which must be above 0.70 The factor loading results of all signs in the research model were valid. Moreover, sign was also acknowledged as convergent validity if AVE value is above 0.5. The result of validity assessment based on AVE value was presented in Table 3.

**Table 3.** AVE

| List of Variable | AVE Value |
|---|---|
| (PU)Perceived Usefulness | 0.922 |
| (PEOU)Perceived Ease of Use | 0.801 |
| (BI)Behavioral Intention | 0.832 |
| (PS)Patients Satisfaction | 0.726 |
| (SQ)Service Quality | 0.785 |

***Source: Computed data***

### b. Discriminant validity

By comparing the loading value on the targeted variable, which must be higher than the loading value with other variables, the discriminant validity value is found. It had to be retested (by deleting indications one by one to find best results) because the first findings showed four indicators that did not meet discriminant validity standards. Four indicators—the PE6, T1, T2, and AS4 indicators—were excluded in the final validity test following four trials.

### c. Reliability

To determine whether the disseminated questionnaire can yield the same findings when administered repeatedly, a reliability test is carried out. Cronbach's alpha value (which needs to be higher than 0.6) and composite reliability value (which needs to be higher than 0.7) are indicators of reliability tests. Table 4 displayed the results of the reliability test.

**Table 4. Composite Reliability& Cronbach's Alpha**

| Variable | Cronbach Alpha value | Composite Reliability |
|---|---|---|
| PU | 0.962 | 0.968 |
| PEOU | 0.946 | 0.951 |
| BI | 0.902 | 0.911 |
| PS | 0.940 | 0.945 |
| SQ | 0.939 | 0.943 |

**2. Structural Model of Equation**

This model will helps to analyse and predicts the causal connection between latent variables.

**a. Determination of coefficient (R2)**

$R^2$ designates the concept can that explains the model to find out enormousness of the effect of particular dependent latent variables on independent latent variables. $R^2$ assessment must be more than 0.70 to classify variables as the strong variable. The value of $R^2$ were displayed in Table 5.

**Table 5. Determination of coefficient**

| List of Variable | $R^2$ Value |
|---|---|
| Perceived usefulness | 0.858 |
| Behavioral intention | 0.836 |
| Patient Satisfaction | 0.847 |

Source: Computed Data

**b. Predictive of relevance (Q2)**

From this result. the great diversity of investigation data that could be clarified by structural was 99.98% and this model had analytical relevance.

**c. Hypotheses Testing**

Testing of hypotheses was done on a research model with 42 indicators and 9 variables. To do this, 160 samples were collected and t,test and path coefficient were examined in this research. The significance level for the t-test was set at 5%. Table 6 displayed this outcome.

**Table 6: Coefficient of Output Path**

| | Sample | T- Statistics | Result |
|---|---|---|---|
| PEOU→PE | 0.843 | 33.553 | (H1) accepted |
| PE→BI | 0.431 | 4.667 | (H2) accepted |
| SQ→EUS | 0.919 | 45.416 | (H3) accepted |
| EUS→BI | -0.127 | 1.991 | (H4) rejected |

## VII. Discussion

This section clarified the examination and element of result of hypotheses testing.

### 1. PEOU on PE Effect

The results display that the form of perceived ease of use has major positive effect on perceived usefulness. This perceived ease of use will create the patients to access hospitals informal so that the usage of government hospitals will be gradually perceived by them.

### 2. PE on BI Effect

Construction of perceived usefulness has substantial positive impact on behavioral intention. This result proves that the usability will progress utilization of new technologies adopted for the treatments, which grow their intention of using facilities offered in the hospitals.

### 3. SQ on EUS Effect

The consequences show that the concept of service quality has momentous positive influence on patients satisfaction. Worthy quality of service can happen or exceed patient's expectations so that their fulfilment of treatment using variuos technology will be increased.

### 4. EUS on BI Effect

This testing will result that construct of patients satisfaction has no substantial effect on behavioral intention. Results that indicates that Patient's intention not essentially influenced by user satisfaction. This is refers to the condition of patients who still do not texture quite satisfied with the services provided by government hospitals. Therefore, it can be decided that variables together do not give any momentous effect.

## VII. Conclusion

Government hospitals, though service is an intangible that we cannot see or touch, have playes a significant role in both major and little health concerns. Most public conveyed satisfaction with the free medical care, cost and free medication, and level of service. Due to the information that modern consumers demand the greatest possible deals, a reliable infrastructure, readily available technology, a wide range of payment options, and high-quality services. Half of the patients in government hospitals were not happy subsequently there were not enough doctors, facilities, or technological developments.

According to the analysis's findings, patient satisfaction, service quality, and user acceptance are all correlated. These associations are the outcome of analysing the suggested study model. Furthermore, one of the four assumptions put out in the model—that is, hypotheses—has been rejected. These three elements must be improved in line with indicators using a model in order to enhance the implementation of government hospitals in the future.

The proposed model demonstrates that service quality dimensions—namely Tangibility, Assurance, Empathy, Responsiveness, and Reliability—play a crucial role in shaping patients' perceptions of government hospital services. These dimensions positively influence Perceived Ease of Use (PEOU) and Perceived Usefulness (PU), which are important determinants of patients' behavioral intentions. When patients find hospital services easy to access and beneficial to their healthcare needs, they develop a stronger intention to use the services in the future. This increased intention ultimately leads to higher levels of patient satisfaction.

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