



## MEDICAL SERVICE DIMENSIONS AND PATIENT SATISFACTION IN PUBLIC TERTIARY HOSPITALS IN AKWA IBOM STATE, NIGERIA

Jerome Inemesit Emmanuel, Etuk Samuel George and Udoh Ini Smart

Department of Marketing, University of Uyo, Akwa Ibom State, Nigeria.

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**ABSTRACT:** *This research examined medical service dimensions and patient satisfaction in public hospitals in Akwa Ibom State. Its specific aim was to determine the joint effects of medical service reliability and tangibility on patient satisfaction in tertiary public hospitals in Akwa Ibom. The researcher adopted the cross-sectional survey research design. Primary data were obtained from 322 patients of tertiary public hospitals using a structured questionnaire. The data were analysed and interpreted using descriptive statistics, while hypotheses testing was done using multiple regression in the Statistical Package for the Social Sciences (SPSS 23). The findings made revealed that medical service reliability and tangibility had significant joint positive effects on patient satisfaction in public hospitals in Akwa Ibom State. Hence, the researcher recommended the following, among others: the services of public hospitals should be made more timely, accurate and dependable so that patients can have the confidence to visit public hospitals whenever they have medical conditions requiring attention and that public hospitals should be refitted with cutting edge medical facilities, technology and technical personnel to ensure that patients have unfettered access to satisfactory medical services.*

**KEYWORDS:** Medical Service Reliability, Medical Service Tangibility, and Patient Satisfaction



## INTRODUCTION

Private healthcare providers have implemented various service-quality improvement initiatives to compete with public hospitals and win significant portions of the Nigerian healthcare market. As stated by Zaim *et al.* (2010), service reliability is the ability of a medical service provider to adequately and accurately offer medical services to patients in the exact standard or manner in which it was promised to patients. However, this study focuses on evaluating how service reliability and tangibility measures applied by private healthcare facilities could be implemented in public hospitals to improve the satisfaction of Nigerian patients. Additionally, according to Bozkurt and Kiliçarslan (2021), the tangibility of medical services is defined as the physical presence of the staff, facilities, tools, and medical equipment needed to give services to patients.

Private and public hospitals all around the world have used these Service Dimension model factors to raise patient satisfaction and improve the quality of service delivery (Mahendrayana *et al.*, 2018; Ogah *et al.*, 2018; Rehaman and Husnain, 2018). When medical care recipients express excitement or satisfaction after receiving services that meet or exceed their expectations or requirements, this is referred to as patient satisfaction (Ali *et al.*, 2021). Medical service providers are looking into many marketing methods, including service quality, to try and ensure patient happiness in their facilities because researchers have identified it as a significant determinant of patient loyalty (Aladwan *et al.*, 2021; Permana *et al.*, 2019). Therefore, this study was done to investigate the effect of service reliability and tangibility on patient happiness in order to absolutely establish how medical service quality may be enhanced to boost patient satisfaction in public hospitals in Akwa Ibom State.

Public healthcare facilities are supposed to increase access to medical care for the general population. However, receiving medical services from them in developing African nations like Nigeria seems to be a challenging and stressful experience in comparison to advanced nations like the United States of America, Canada, and the United Kingdom. Again, Nigeria's public healthcare facilities tend to be typically underfunded, ill-equipped, and lacking enough medical professionals to provide needed care to patients. As a result, there seem to be too many patients for these facilities to handle, further jeopardising their capacity to provide dependable medical services (Alegbeleye, 2021). Numerous Nigerian patients, especially women and children, have died needlessly due to the unattractive state of public hospitals and their apparent incapacity to provide patients with adequate medical care (Okunola, 2020). These difficulties are made worse by the unfavourable working conditions and low pay for medical practitioners nationwide as a result of inadequate government financing.

As of September 2021, when more than 353 Nigerian doctors had fled to the United Kingdom in quest of better chances abroad, the remaining staff members appear disheartened and less devoted to service delivery due to job dissatisfaction. (PM News Nigeria, 2021). Again, since private medical service providers are viewed as superior alternatives to public facilities, given these harsh realities of public hospitals, the majority of Nigerians are progressively choosing to use their services (Uneke *et al.*, 2021). Despite the fact that private healthcare facilities are presumably superior to public ones, low-income Nigerians are unable to receive healthcare due to the exorbitant expense of private medical treatment. Many academics have looked into methods to improve the quality of service delivery in public hospitals to increase patient access to high-quality medical care in an effort to improve the situation in public hospitals. In order to provide empirical support for medical professionals to improve service delivery, researchers



have investigated the potential impact of Medical Service dimensions (reliability, responsiveness, empathy, assurance, and tangibility) on patient satisfaction and loyalty in public healthcare facilities.

The majority of researchers have come to conflicting conclusions about how various aspects of service quality impact patient happiness. While some scholars assert that Medical Service dimensions have significant positive influences on patient satisfaction (Neupane and Devkota, 2017; Ogah *et al.*, 2018; Rehaman and Husnain, 2018; Permana *et al.*, 2019), others oppose this position, arguing that the influence of some Medical Service dimensions on patient satisfaction is non-significant (Arsanam and Yousapronpaiboon, 2014; Zarei *et al.*, 2015; Meesalaa and Paul, 2018; Bozkurt and Kiliçarslan, 2021; Ali *et al.*, 2021). Therefore, this research aims to determine whether or not some medical service dimensions (medical service reliability and tangibility) have a joint significant influence on patient satisfaction. The study is undertaken with the hope of providing a framework for improving the quality of medical service delivery among Nigerian public healthcare facilities to benefit patients. In order to achieve the above goal, the hypothesis formulated to guide the study was:

**H<sub>01</sub>:** Medical service reliability and tangibility have no significant joint effect on patient satisfaction in public hospitals in Akwa Ibom State.

## REVIEW OF RELATED LITERATURE

### An Overview of Medical Service Dimensions

Medical service is a credence and high-contact service that requires a greater need to maintain its credibility by providing high-quality and reliable services (Yee, Yeung, & Cheng, 2010). The dimensions of medical services can be measured as the discrepancy between the patient's or patient's attendants' perceptions of services and their expectations about the hospital offering such services (Aagja & Garg, 2010). According to Upadhyai, *et al.* (2019), as the customer passes through a journey in pursuit of wellness and health in a healthcare setting, customer experience occurs, which are patients' internal and subjective response to any direct or indirect contact with various touch points in the hospital settings. However, these touch points may not have equal value to the customer (patient) (Upadhyai, *et al.* 2019).

The application of some SERVQUAL dimensions in medical service studies has shown that intangible elements tend to be more influential than tangible ones (Kara, Lonial, Tarim and Zaim, 2005). Pai and Chary (2013), in a review of medical service studies, found that SERVQUAL modified SERVQUAL has been used as an instrument in 49% of studies. The number of service dimensions varies from researcher to researcher, where the researchers adapted the scale based on specific situations. For this study, the reliability of medical services and tangibility were considered as medical service scales.

Ali *et al.* (2021) investigated the impact of service quality on patient satisfaction with private hospitals in Erbil, Iraq. A questionnaire was utilised to collect primary data from 111 patients from hospitals in Erbil, Iraq. Descriptive statistics, regression, and correlation analysis were used to examine the study's data. The study's findings showed that service tangibility, dependability, responsiveness, assurance, and empathy significantly impacted patient satisfaction in Erbil, Iraq.



Zarei *et al.* (2015) conducted a study in Tehran, Iran, to assess how service quality affects patient satisfaction in private hospitals. Primary data were collected from 969 patients from eight private general hospitals in Tehran using a questionnaire. The t-test, Analysis of Variance (ANOVA), and multivariate regression analysis were used to analyse the data and evaluate hypotheses. As a result, the study's findings showed that service quality (process quality, interaction quality, and cost) had a considerably strong association and effect on patient satisfaction. However, physical environment quality had no significant effect.

Aladwan *et al.* (2021) investigated how hospital service quality relates to patient satisfaction and loyalty in Jordan. A 5-point Likert scale questionnaire was used to collect primary data from 400 patients in a Jordanian public hospital. The study's hypotheses were statistically tested using Partial Least Square Structural Equation Modeling (PLS-SEM). According to the study's findings, service quality dimensions; reliability, assurance, tangibles, empathy, and responsiveness) had a direct and significant beneficial influence on patient loyalty and satisfaction in Jordanian hospitals.

In the scope of this study, Medical service tangibility is defined as the availability and appearance of physical medical equipment, facilities, tools, and employees essential to support the delivery of medical services to patients. According to Etuk *et al.* (2022), the term is used to portray the conscious design of an area or environment in order to create a desired effect on customers' (patients') minds. Its markers include current medical equipment, appealing physical facilities, the look of medical professionals, and a clean medical atmosphere. On the other hand,

On the other hand, medical service reliability is defined as the ability of medical service providers to provide appropriate and accurate medical services to patients at the exact standard promised. Its indicators include on-time service delivery, accurate diagnosis, treatment, and dependability.

### **Medical Service Reliability and Patient Satisfaction**

Medical service reliability is the capacity of a medical service provider to adequately and accurately offer medical services to patients in the exact standard or manner in which it was promised to patients (Zaim *et al.*, 2010). As a result, trustworthy medical services are accurate, genuine, dependable, error-free, and dependable. A trustworthy medical service provider is one who consistently provides healthcare services to patients on time, accurately and exceptionally. The dependability of a medical service provider is defined as the provider's ability to recognise patients' health needs and meet them accurately and adequately (Abbasi-Moghaddam *et al.*, 2019). A medical service provider can provide healthcare services to patients exactly as promised. Medical service dependability is critical in the medical sector since patient health and, in certain cases, life depends on the reputation and proficiency of the medical service provider (Pouragha and Zarei, 2016). In this sense, medical service reliability can be seen in the provider's ability to diagnose the disease, comprehend its properties and origins, prescribe appropriate medications or carry out appropriate medical (surgical or otherwise) treatment, and follow through to ensure the patient achieves satisfactory wellness. As a result, reliability is a critical component of service quality in the medical sector, as it is a fundamental expectation of patients whenever they use or intend to use the services of healthcare service providers.



Furthermore, Izadi *et al.* (2017) discovered that in today's society, potential patients are deeply concerned about the dependability of a healthcare service provider before committing their health to their care. Potential patients frequently inquire about the dependability of healthcare providers online and through close relationships before visiting a certain facility. Friends, relatives, coworkers, and online communities can supply preliminary but possibly credible information about a service provider's performance based on their personal experiences with the provider's services. According to Iddrisu *et al.* (2015), getting service delivery right from the first point of contact with patients is critical to a healthcare service provider's capacity to portray itself as dependable and capable of meeting patient health needs and expectations. This means that prompt and effective service delivery is critical to increasing client happiness and loyalty. Some current empirical research has proven the association between service reliability and client loyalty in the healthcare industry.

According to Al-Damen (2017)'s research, medical service reliability considerably impacts total patient satisfaction. Another study conducted by Boadi *et al.* (2019), discovered that the dependability of medical services has a considerable positive and direct impact on customer satisfaction. Similarly, Zaim *et al.* (2010) discovered that the dependability of medical services substantially impacted consumer satisfaction. Furthermore, according to the findings of Bozkurt and Kiliçarslan (2021), medical service reliability was positively and significantly associated with patient satisfaction.

### **Medical Service Tangibility and Patient Satisfaction**

Tangibles in medical services could be likened to the atmospheric and tangible elements that are present where the medical services are offered. Tangibles are, therefore, the appearance of visible facilities, equipment, personnel and communication accessories present at the service delivery sites (Raza *et al.*, 2015). Because medical services are often intangible and may only be known to have quality or not after purchase, experience, or consumption, tangibles are employed to visibly reflect service quality (Hashem and Ali, 2019). According to Bozkurt and Kiliçarslan (2021), medical service tangibility is the availability and appearance of physical medical equipment, facilities, tools, and employees essential to support the delivery of medical services to patients. The totality of all medical apparatuses, facilities, machines, instruments, surgical equipment, treatment accessories, cars, ambulances, people, and the appearance of the surrounding environment at medical facilities where patients receive medical services is referred to as tangibility. Given the importance of tangibles in the medical service industry, it is difficult to imagine a functional healthcare facility lacking the necessary tangible equipment and accessories to facilitate creating, providing, and delivering healthcare services to patients (Amedari and Ejidike, 2021). Indeed, there can be no medical service production or delivery without real infrastructure because medical practitioners require machines, computers, and systems to efficiently monitor, diagnose, operate on, and treat patients.

Along with the availability of tangible equipment and facilities in hospitals, the quality of these facilities and equipment could either accelerate or hinder healthcare personnel's capacity to do their responsibilities successfully (Nadi *et al.*, 2016). This is why, among other advances, modern healthcare providers are investing in acquiring and installing ultra-modern, high-tech healthcare facilities such as body scanners, birthing beds, respiratory ventilators, surgical chairs, ultrasound machines, and ultrasound probes. Furthermore, because medical services are intangible, tangible facilities or equipment are required to improve the healthcare service provider's ability to deliver satisfactory medical services capable of boosting patient



satisfaction (Al-Azzam, 2015). Like other factors of medical service quality, medical service tangibility has been shown in empirical investigations to improve patient satisfaction considerably. This concept is backed by AL-Mhasnaha et al. (2018)'s study, which found that medical service tangibles significantly affected patient satisfaction in Jordan. The concept is further confirmed by the findings of Ismail and Yunan (2016), who discovered a substantial positive link between the tangibility of medical services and patient happiness and loyalty in Malaysia. Similarly, the hypothesis is consistent with the findings of Aladwan *et al.* (2021), who discovered that medical care tangibles had a direct and significant positive influence on patient loyalty and satisfaction in Jordanian hospitals. Furthermore, the concept is similar to the findings of Mahendrayana *et al.* (2018), who discovered that the tangibility of medical services had a substantial favourable effect on patient satisfaction and loyalty in Indonesian hospitals.

### **Patient Satisfaction**

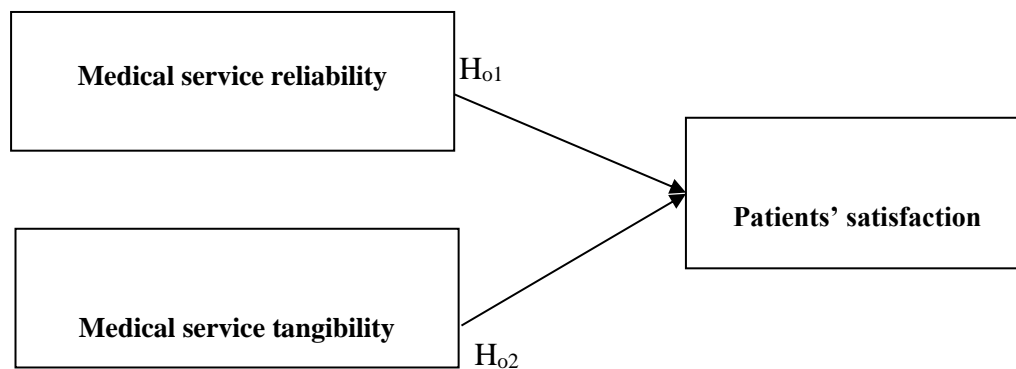
Patient satisfaction is defined as a feeling of excitement or enjoyment felt by medical care consumers when the services received from medical service providers meet or exceed their expectations or criteria (Ali *et al.*, 2021). It happens when the quality of medical care patients receive is adequate to suit their medical demands. Satisfaction means that patients' medical wants and requirements have been accurately met or completed by consuming or experiencing healthcare providers' medical services. This means that the reason or health concern that prompted people to seek medical assistance has been resolved, and the patient has recovered successfully after obtaining medical care from health professionals (Permana *et al.*, 2019). In the medical industry, patient satisfaction is critical for long-term performance because satisfied patients become loyal patients and spread positive word-of-mouth about providers' services, introducing new patients to providers (Aladwan *et al.*, 2021). As a result, private healthcare providers worldwide are turning to service quality improvement strategies (such as service automation) to increase their long-term potential to boost patient happiness and loyalty.

Healthcare providers also conduct periodic patient satisfaction surveys (via phone calls, questionnaires, mail surveys, interviews, and focus-group discussions) to track patient satisfaction and discover better ways to improve patient satisfaction (Zaim *et al.*, 2010). During such surveys, medical practitioners and researchers frequently look for specific indicators or behaviours indicating whether patients are satisfied with their treatment. Patient excitement, repeat patronage, favourable word-of-mouth, and patient referral are some of these markers (Al-Damen, 2017). Patients who are pleased with the services provided by a healthcare practitioner will be eager to relate to or interact with the physician; they will also be eager and willing to engage in customer satisfaction surveys to express their level of satisfaction with the provider's services. Satisfied patients are also more likely to return to providers' services in the future, even in the face of competing healthcare providers. Similarly, a satisfied patient is more likely to convey favourable word-of-mouth information about healthcare providers, so actively referring others to the healthcare service providers through positive recommendations.

Again, Ogah *et al.* (2018) conducted a study in Nigeria to determine how hospital service quality affects patient satisfaction. A 5-point Likert scale questionnaire was used to collect primary data from 230 doctors, nurses, and patients at the State Specialist Hospital and Federal Medical Center in Lokoja, Kogi State. Descriptive statistics were used to analyse the data. The study's findings demonstrated that reliability, responsiveness, empathy, assurance, and

tangibility all contributed significantly to customer satisfaction in the Nigerian healthcare market.

It was hypothesised in this study that medical service tangibility and reliability could jointly predict patient satisfaction in Akwa Ibom State public hospitals using these specific measures. Consequently, a conceptual model was adapted from existing studies to visually demonstrate the proposed relationship between medical service quality dimensions of tangibility and reliability and patient satisfaction, as presented in Figure 1:



**Figure 1: Conceptual model of the study adopted from Zarei *et al.* (2015)**

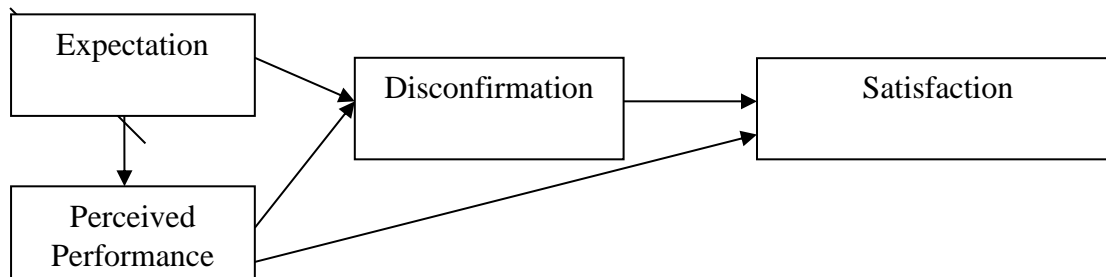
*Source: An empirical study of the impact of service quality on patient satisfaction in private hospitals, Iran. Global Journal of Health Science, 7(1): 1-9*

## THEORETICAL FRAMEWORK

According to the expectancy disconfirmation theory, combining service quality and expectations with performance contributes to post-purchase satisfaction. Positive or negative disconfirmation between expectations and performance mediates this impact. Post-purchase satisfaction (positive disconfirmation) will result if a product outperforms expectations. If a product or service fails to meet expectations, the customer will be unhappy (negative disconfirmation). According to disconfirmation theory, contentment is primarily determined by the gap between perceived performance and expectations. According to the theory, the key-dependent component is satisfaction, and the main independent factors are expectation and perceived performance. Customer satisfaction is the sum of a customer's perception, appraisal, and psychological reaction to a product or service's consuming experience (Serrano *et al.*, 2018). It leads to repeat purchases, loyalty, retention, and positive word of mouth, increasing long-term profitability for the organisation and customers.

Positive disconfirmation, confirmation, and negative disconfirmation are the three (3) types of expectation disconfirmation (Oliver, 1980). When perceived performance exceeds expectations, positive disconfirmation develops. This is referred to as confirmation when perceived performance meets expectations, whereas negative disconfirmation happens when perceived performance falls short of expectations. Medical service consumers are more likely to be satisfied if they meet (confirmation) or exceed (positive confirmation) their expectations.

Medical service consumers (Patients), on the other hand, are more likely to be disappointed if medical service delivery falls short of expectations (negative disconfirmation).



**Figure 2: Expectancy disconfirmation theory**

Source: Oliver, R. L. (1980). *A cognitive model of the antecedents and consequences of customer satisfaction in a retail setting*. *Journal of Retailing*, 57, 25-48.

## METHODOLOGY

The research instrument was administered to a random selection of outpatients at twenty (20) tertiary public hospitals in Akwa Ibom State who were easily accessible, readily available and willing to participate in the questionnaire survey. Patients were chosen for the study because they were active users of medical services, and as such, they were in a position to objectively assess the quality of service delivery available at public hospitals in Akwa Ibom State.

The cross-sectional survey research design was utilised in this study. It enabled the researcher to obtain first-hand data from patients at public hospitals in Akwa Ibom State in a single period of time. The study's target population were all outpatients of public hospitals in Akwa Ibom State. This population was taken as infinite because the researcher had no access to records of outpatients in the twenty (20) public hospitals selected for the study at the time of this research. The Topman formula was thus applied to arrive at an appropriate sample size of 357 respondents for the study after a pretest pilot survey. From the 357 copies of the questionnaire distributed, 322 copies were retrieved and usable for the study's test of hypothesis. The respondents were assessed using the convenience sampling technique, using a 5-point Likert scale survey questionnaire consisting of twelve items. The reliability of the instrument was tested using the Cronbach alpha reliability test, and the resulting coefficient were:

**Table 1: Cronbach Alpha Coefficient**

Variables	No of Items	Coefficient
Reliability	4	0.668
Tangibility	4	0.723
Patient Satisfaction	4	0.626

Source: SPSS Output (2023).





The coefficients fell above the 0.5 threshold; hence all items on the instrument were adopted for the survey. The data collected were further analysed using the multiple regression analysis at a 0.05 significance level. The results are as shown:

## DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

**Table 2: Demographic Data of the Respondents**

Variables (%)	No. of Respondents	Percentage
<b><u>AGE</u></b>		
18-25	51	15.8
26-35	72	22.4
36-45	59	18.3
46 and above	140	43.5
<b>Total</b>	<b>322</b>	<b>100.0</b>
<b><u>GENDER</u></b>		
Male	167	51.9
Female	155	48.1
<b>Total</b>	<b>322</b>	<b>100.0</b>
<b><u>MARITAL STATUS</u></b>		
Single	170	52.8
Married	152	47.2
<b>Total</b>	<b>322</b>	<b>100.0</b>
<b><u>OCCUPATION</u></b>		
Students	80	24.8
Business persons	80	24.8
Public servants	76	23.6
Others	86	26.7
<b>Total</b>	<b>322</b>	<b>100.0</b>

**Source:** Field survey (2023).

The results of the analysis in Table 2 indicate that 51 (15.8%) of the respondents were between the ages of 18 and 25 years, 72 (22.4%) of the respondents were between the ages of 26 and 35 years, 59 (18.3%) of the respondents were between the age brackets of 36 and 45, and 140 (43.5%) of the respondents were between the ages of 46 and above. The table shows that 167 (51.9%) of the respondents were male, while 155 (48.1%) of the respondents were female. On marital status, 170 (52.8%) of the respondents were single, while 152 (47.2%) of the respondents were married. From the above table, the respondent's occupations were revealed. Hence, 80 (24.8%) were students; 80 (24.8%) were business persons; 76 (23.6%) were public servants; and 86 (26.7%) of the study population fell under other occupations not listed in the research instrument. This result implies that all respondents who participated in the survey were within the legal age of 18 years and above. The survey was gender friendly, going by the fair, equitable proposition of males and females participating in the study.



## Test of Hypothesis

**H<sub>01</sub>:** Medical service reliability and tangibility have no significant joint effect on patient satisfaction in public hospitals in Akwa Ibom State.

## Model Summary

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.936 <sup>a</sup>	.875	.874	.79678

a. Predictors: (Constant), Reliability, Tangibility

## ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1420.177	2	710.089	118.508	.000 <sup>b</sup>
	Residual	202.518	319	.635		
	Total	1622.696	321			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Reliability, Tangibility

## Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.483	.241		2.004	.046
	Tangibility	.276	.022	.339	12.821	.000
	Reliability	.511	.020	.675	25.522	.000

a. Dependent Variable: Satisfaction

Source: *Field Survey Result (2023)*.

Results of the multiple regression analysis show that the independent variables, reliability and tangibility, jointly accounted for approximately 88% of the variation in patient satisfaction at public hospitals in Akwa Ibom State, with a regression coefficient of  $R^2 = 0.875$ . This means that the reliability of services and tangibility as predictors of medical services were collectively accountable for 88% of the changes in patient satisfaction, while 22% of the changes in the dependent variable could be attributed to other factors not considered in the study's model.

Results on the table also indicate that the joint relationship between the independent variables (reliability and tangibility) and patient satisfaction ( $Y = PS$ ) was strong according to the  $R = 0.936$  and adjusted  $R^2 = 0.874$ , indicating that the regression model of this study is said to have a strong explanatory power of the dependent variable. In addition, the F-ratio = 118.508 and p-value < 0.000 on the ANOVA suggest that the regression model results could not have occurred by chance and that reliability and tangibility jointly and significantly predicted the changes in the dependent variable (patient satisfaction).



To assess the relative importance and significant contribution of each independent variable on the dependent variable, the coefficients are provided in the Table. Accordingly, the medical service indicators that were jointly measured against patient satisfaction showed a significant positive contribution in terms of changes in the dependent by their positive Coefficients.

The multiple regression analysis result showing the multiple regression Coefficients of the two variables are as follows: Reliability of service;  $\beta_{X_1Rel} = 0.511$ ,  $p\text{-value} = 0.000$ ) and Tangibility ( $\beta_{X_2Tan} = 0.276$ ,  $p\text{-value} = 0.000$ ). These results, as presented in the Coefficient table, can be interpreted that every unit change in any of the independent variables will lead to an increased change in the dependent variable, holding all other factors constant. As represented in the resulting multiple regression model. The proposed multiple regression equation is:

$$Y = a_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + e$$

$$Pst = a_0 + \beta_1 Rel + \beta_2 Tan + \dots + e$$

Thus, the resulting multiple regression model is presented as:

$$Pst = 0.483 + 0.511 Rel + 0.276 Tan$$

Considering the result of significant  $P\text{-value} = 0.000$  in the ANOVA and coefficient, It is concluded that reliability of services and tangibility does have a joint significant positive relationship with patients satisfaction in public hospitals in Akwa Ibom State, Nigeria.

## DISCUSSION OF FINDINGS

Results from the hypothesis test revealed that the reliability of medical services and tangibility were joint significant predictors of patient satisfaction in public hospitals in Akwa Ibom State. The implication of these findings is that the modalities set in place for effective service delivery in the public health sector, in terms of reliable services, staffing, the hinge-free service delivery process, the physical facilities that made up the tangible evidence of the servicescape directly affected the services offered and significantly influenced patients satisfaction.

This finding is supported by Al-Damen (2017), who found in his study that medical service reliability substantially impacted total patient satisfaction. Aladwan et al. (2021), also discovered that medical service tangibles had a direct and significant positive influence on patient loyalty and satisfaction in Jordanian hospitals. This finding corroborates with AL-Mhasnaha *et al.* (2018), who found that medical service tangibles significantly affected patient satisfaction. The finding further garners support from the findings by Ismail and Yunan (2016)'s which revealed that a substantial positive association exist between medical service tangibility and patient happiness and loyalty in Malaysia. The implication of these findings in the context of this study is that the delivery of consistently reliable medical services can improve patient satisfaction in public hospitals in Akwa Ibom State. This means that an effective way for public hospitals to enhance patient satisfaction with their services consistently is to ensure they are reliable and credible at all times. Additionally, these findings are an indication that the availability and functionality of medical tangibles such as medical equipment, physical facilities, personnel appearance, and a clean medical atmosphere might be a valuable strategy for enhancing patient satisfaction in Akwa Ibom State's public hospitals.



## CONCLUSION AND BUSINESS IMPLICATIONS

Given that the findings of this research confirmed that medical service reliability and tangibility are significant predictors of patient satisfaction in public hospitals, the researcher concludes that public hospitals that want to increase patient satisfaction must focus on the aforementioned medical service dimensions (reliability and tangibility) as a function of the service design and service delivery system.

## RECOMMENDATIONS

Taking the findings of the study into account, the following recommendations are made for possible implementation by Nigerian public hospitals:

- i. The government should provide decent medical infrastructures, equipment and drug dispensary that represent tangible elements of medical services to cater for the medical needs of the teeming public.
- ii. The design of the medical service system should be in a way that both workforce and system design is fashioned in a way that reliable service delivery is guaranteed. This will further strengthen the trust and confidence of members of the public in the public health care system.

## LIMITATIONS AND FUTURE RESEARCH

This study examined medical service dimensions and patient satisfaction in public hospitals in Akwa Ibom State. Contextually the scope was limited to two service dimensions; reliability and tangibility of the service. Other studies may adopt the use of all the dimensions that make up the service quality Model. Further studies could also consider factors such as cost, convenience, the moment of truth, accessibility to service and past experiences. Geographically, further studies may consider expanding the geographical scope to study the healthcare system of Nigeria as a whole or a comparative study of public and private healthcare systems in the state. Further studies could even be undertaken considering the unit of analysis to be the most vulnerable individuals in society: aged persons, pregnant women and children.

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