THE ROLE OF GENDER EFFECTS MODERATING THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION IN HEALTHCARE SECTOR: A CASE OF FEDERAL MEDICAL CENTRE, KEFFI, NASARAWA STATE.

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Abstract

This study aimed at examining the role of gender effects moderating the relationship between service quality on customers' satisfaction in Federal Medical Centre, Keffi, Nasarawa State. The objective of this study was to review service quality and customers satisfaction using gender as a moderator in Federal Medical Centre, Keffi, Nasarawa State. Data from patients were collected using questionnaire which was distributed to the customers. The formulated hypotheses were tested using PLS-SEM and descriptive statistics were analyzed through SPSS. Even though the findings revealed that that there was significant relationship between reliability and customers' satisfaction; a significant relationship between corporate image and customers' satisfaction; and a significant relationship between empathy and customers' satisfaction in the hospital. There was no significant relationship between assurance and customers' satisfaction; no significant relationship between tangibility and customers' satisfaction; and gender not moderate the relationship between responsiveness and customers' satisfaction in the hospital. This study concluded that the findings of this research could potentially provide an important contributions and inputs which would be useful in the process of decision making within the management of the hospital geared towards improvement of customers' satisfaction in the hospital. We therefore recommended that given the indicators for service quality delivery cum customers' satisfaction, the hospital should prioritize training of their staff in skills for service quality delivery and motivate the staff with rewards or other incentives to inspire willingness to improve customers' satisfaction in the hospital.

Keywords: Effects, Gender, Service Quality, Customer Satisfaction, Healthcare sector, Hospital

1. 0 Introduction

In highly competitive business environment, maintaining and generating customer satisfaction through high quality service is a key for achieving sustainable business operations (Lee, 2013). Reich, McCleary, Tepanon, and Weaver (2006) observed that keeping existing customer is easier than attracting new customers. In some industries,

retaining 5% of existing customers could increase profit by 85% (Ren-Fang, Tai-Chi, & Wei-Ti, 2015). Therefore, service quality has emerged as an approach to maintaining long-term competitive advantage (Ren-Fang, *et al.,* 2015). Similarly, meeting customers' needs and expectations has always been a great challenge facing service organizations (Yousf, Ismail & Zulkifflee, 2015). To address these challenges organizations pursue to establish and maintain customers' satisfaction. Studies such as Ruswanti(2017) in a hospital, Indonesia indicated that there was no significant relationship between service quality and customers' satisfaction. Contrary to the above assertion, the study of Iloh, Ofuedu, Njoku, and Iwuamnam (2017) explored Nigerian public health institution; the result illustrated that there was significant and positive relationship between service quality and customers' satisfaction in healthcare industry. In one hand, Baron and Kenny (1986) suggested that for studies that empirically shown inconsistency in the findings should apply moderator. Thus, this study used moderator, and it served as gap to the literature. On the other hand, Omar, Ariffin, and Ahmed (2016) posited that the role of gender as a moderator is still limited. Hence, this study is very important to identify the factors that satisfy customers and how gender moderates the relationship between responsiveness and customer satisfaction in Federal Medical Centre, Keffi, Nasarawa State. Ibok and Etuk (2013) observed that there were limited empirical researches investigating service quality on customers' satisfaction in service industry especially, the healthcare sector. Accordingly, this research was to widen our horizon on the relationship between service quality and customers' satisfaction in the Nigerian hospitals' setting.The objective of this study was to review service quality and customers satisfaction in Federal Medical Centre. Therefore, this study adopted the study of Umie and Tantri (2017) which suggested the use of SERVQUAL modification of variables. The modification made in this study is unique from earlier studies of (Olawale and Kazeem, 2017) Nigeria study; (Rifyal & Basu, 2015). Both studies used Parasuraman, Zeithaml, and Berry(1985) service quality dimensions: reliability, responsiveness, tangibility, assurance and empathy. This study used six service quality indicators such as reliability, responsiveness, tangibility, assurance, empathy and corporate image. This made this work unique and contributed to knowledge and filled the gap in the literature. Federal Medical Centre, Keffi, Nasarawa State was selected for this study; the rationale for the choice of the healthcare institution was predicated on the proximity of the hospital to Federal Capital Abuja. As a result of nearness of the hospital to Federal Capital Territory Abuja, patients attending the hospital have different sub-cultures and ethnicities, testing the model in the hospital with culturally diversified patients' settings would expand and deepen our knowledge on the effects of service quality on customers' satisfaction (hospital's patients). This study was divided into four sections. Section one focused on introduction, and related literature review of this study. The second section was concerned with theoretical framework and the proposed model for this study. The third section presented the methods. Finally, the forth section; the results and the discussion of findings and recommendations of this study

Essentially, we examined seven research objectives that link service quality with customers' satisfaction.

1. To examine the relationship between assurance and customers' satisfaction in Federal Medical Centre.

2. To examine the relationship between corporate image and customers' satisfaction in Federal Medical Centre.
3. To examine the relationship between empathy and customers' satisfaction in Federal Medical Centre.
4. To examine the relationship between reliability and customers' satisfaction in Federal Medical Centre.
5. To examine the relationship between tangibility and customers' satisfaction in Federal Medical Centre.
6. To determine the extent to which gender moderate the relationship between responsiveness and customers' Satisfaction in Federal Medical Centre.

2. 0 Literature Review

2.1 Customer Satisfaction

Customer satisfaction was viewed as a person's feeling of accomplishment or dissatisfaction resulting from comparing a service's performance in relation to its expectations (Cudjoe, Anin & Nyanyofio, 2015). To some, it might be seen as the company's key performance indicator. In a competitive marketplace, where businesses compete for customers, customer satisfaction was viewed as a key differentiator and increasingly has become a key element of business strategy. It was a fact that satisfied customers were keys to long-term business success (Zeihaml, 2006).
However, securing and increasing customer satisfaction is pivot to many corporate strategies because obtaining new customers is costly and customer satisfaction is linked to long-term service quality. Thus, Lim and Tang (2000) observed that service quality could be employed as a strategic instrument to build a distinctive advantage for organizations in the marketplace.

2.3 Service Quality

Service quality is a concept that has created considerable interest and debate in the literature because of the difficulties in both definitions and measuring with no complete consensus on either (Wisniewski, 2001). The definition of service quality often differs from scholar to scholar in accordance to the situation. It was defined as the difference between customer expectations and perceptions of service or as the customer's satisfaction or dissatisfaction with their experience of purchase and use of service (Gronroos, 2008). Service quality varied only in terms of word used (Cronin & Taylor, 1992). The past studies indicated that service quality was a vital indicator for satisfaction (Gronroos, 2008). Giving adequate attention to service quality could help the organization to catch competitive edge (Boshoff & Gray, 2004).

2.4 Dimensions of service quality

The instrument that was used for measuring perceived quality of service in this study consisted of six service quality dimensions which are: assurance, corporate image, empathy, reliability; responsiveness, and tangibility.Assurance, as a service quality dimension, is

conceived of as the employee's knowledge and courtesy; and the ability of the firm and its employees to inspire trust and confidence. This dimension is likely to be particularly important for services that customers perceive as high risk or for service of which they feel uncertain about their ability to evaluate outcomes, e.g. banking, insurance, brokerage, medical and legal services. Trust and confidence embodied in an organization illustrated efforts to create trusting relationship between customers and the company as a whole. Therefore this hypothesis was stated:

> H_{01}: There is no significant relationship between assurance and customers' satisfaction in Federal Medical Centre.

Corporate image as SERQUAL Dimension Siew-Peng and Sedigheh (2015) noted that corporate image is the perception a customer has of an organization as a result of his/her memory of that organization. Nguyen and Leblanc (2011) defined image as the range of associations that comes to minds when customer heard the name of the organization. Thus, a well-known image is an asset because it influenced the customers' perception of an organization. Literature suggested that image was made up of two components: functional and emotional. Functional image means tangible dimensions that could be identified and measured, while, emotional image referred to the psychological aspects of an individual customer's experiences and attitude towards an organization (Aminu, Isa, & Fontine,2013). This led to the following proposition:

> H_{02}: There is no significant relationship between corporate image and customers' satisfaction in Federal Medical Centre.

The other dimension of service quality is empathy. This is conceived of as the extent to which caring individualized service was given. In the view of Brink and Berndt (2005), the organization and its employees must try to understand the customer's problems and strive to execute activities with the customers' best interests in mind. Irfan and Ijaz (2011) posited that the essence of empathy is conveying, through personalized or customized services, that customers are unique and special and that their needs are understood. Customers want to be understood by and feel important to firms that provide service to them. We therefore stated this proposition:

> H_{03}: There is no significant relationship between empathy and customers' satisfaction in Federal Medical Centre.

Reliabilityrefers to the ability of an establishment to offer service dependably and accurately. In its broadest sense, reliability means that an organization delivers on its promises – promises about service provision, pricing, delivery and problem solving (Jordaan & Prinsloo, 2001). In hospital settings, reliability could be characterized by adherence to customer requests regarding the preparation of treatments, relationship with employees and accurate billing among others. We therefore hypothesize that:

H_{04}: There is no significant relationship between reliability and customers' satisfaction in Federal Medical Centre.

Furthermore, tangibilitypertains to the appearance of the hospital's physical facilities, equipment, and personnel. Thus, tangibility is used by hospitals to communicate their image and signal quality to customers. It is agreed that services are intangible not only because customers cannot see, feel, smell, hear or taste, but it is also because they are difficult to conceptualize. The intangibility aspect makes services difficult to illustrate, describe and communicate (Kasapila, 2006). As a result, what a hospital intends to deliver might be quite different from what the customers receive (Lee & Hing, 1995). In addition, the intangibility of services makes it difficult for customers to evaluate or understand the exact nature of services offered (Zikmund & D'Amico, 2002).

H_{05}: There is no significant relationship between tangibility and customers' satisfaction in Federal Medical Centre.

Moderating variables are independent variables that affect the direction and or the strength of the relationship between independent and dependent variables (Thompson, 2006). Tat, Balasubramaniam, Chin, Rasli and Jusoh (2011) stated that demographic variables, such as age, gender, and socioeconomic status are known as customer characteristics. Individual customer differences such as gender, age and income are significant determinants of the customers' satisfaction (Soderlund, 2002). Tat (2011) mentioned that gender referred to a set of characteristics differentiating between males and females. Empirical studies conducted by Jaffe and Berger (1988) found that gender identity played a significant role in customers' satisfaction in organizations. Drawings on social role theory Jeffe *et al*., (1988) men were more willing than women to take risks because socially men are expected to engage in risky behavior than the women.

H_{06}: Gender does not significantly moderate the relationship between Responsiveness and customers' satisfaction in Federal Medical Centre.

Based on the reviewed literature above, this proposed research model was designed for this study.

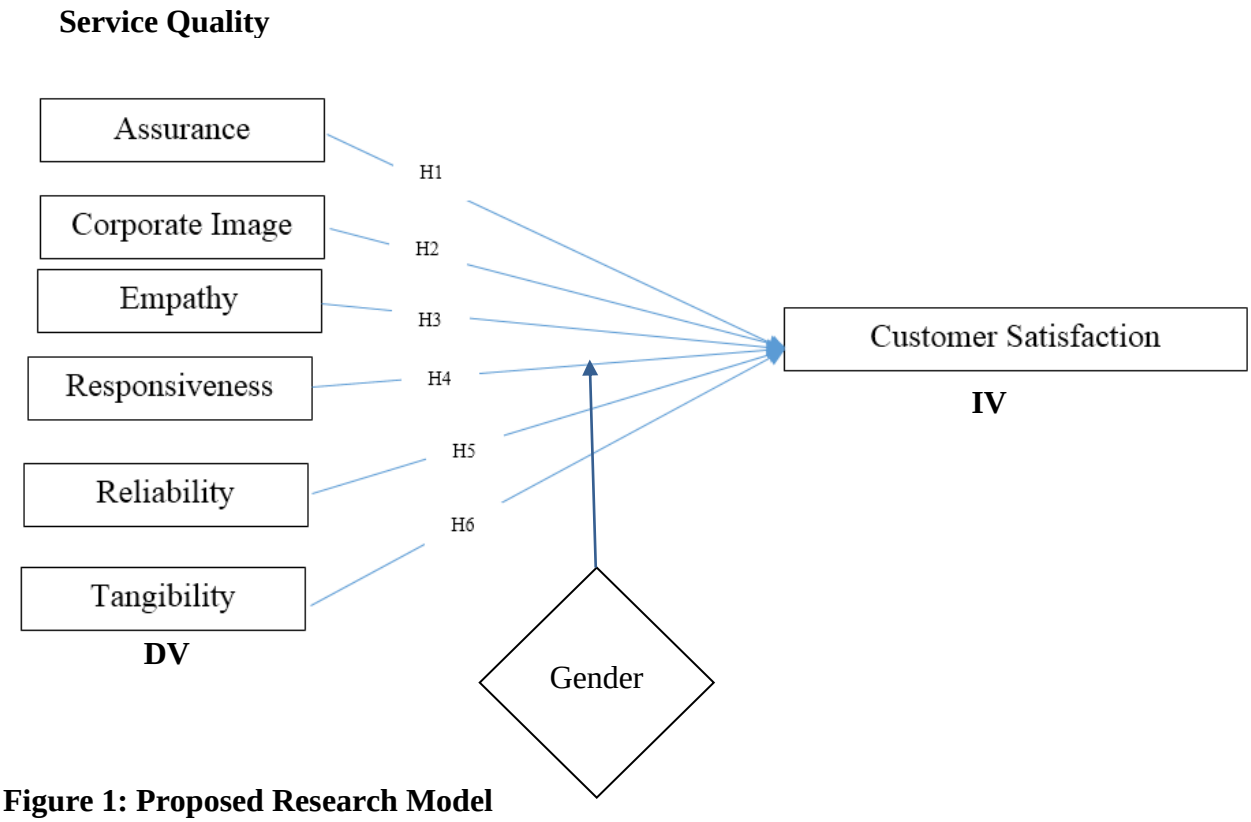

Figure 1: Proposed Research Model

Source: Researcher's modeling of service quality model

2.5 Empirical Literature

In this section, various previous works of some authors were reviewed as follows. The study of Cho and Pucik (2005) had shown that top management officers increasingly relate quality to companies' customer satisfaction, and thus, it had been considered as one of the significant key elements in achieving long-term competitive advantage. In the same vein, an empirical research conducted by Wijetunge (2016) supported the hypothesis that the level of service quality of firms were related positively to a better customer satisfaction over the past five years in 131 service firms in UK. Pramtminingsih, Lipuringtyas and Rimenta (2013) studied factors influencing customer loyalty toward online shopping. The study employed primary data through questionnaire to draw with a sample size of 800 respondents. The results revealed that satisfaction, trust and commitment had significant impact on students' loyalty toward online shopping. Chakraborty and Majumdar (2011) examined measuring satisfaction in healthcare sector. They used SERVQUAL dimensions as tools to measure service quality and customer satisfaction. The result of the study showed that the dimensions of service quality such as assurance and empathy had significant effects on consumer' satisfaction in the health sector. Sabir, Noor, Ahmed, Qaisar, Kamil and Khurshid (2013) studied the impact of service quality on patients' satisfaction using SERVQUAL. It used the five dimensions of service quality: responsiveness, empathy, tangibility, reliability and assurance as important determinants applied in the health sector. The findings indicated that the private and the

military hospitals were more interested about quality of services; however, little attention was paid to service quality dimensions by the public healthcare. Besides (Berry, 1989; Reichheld and Sasser, 1990; Cronin, Brady and Hult, 2000; Kang and James, 2004; Yoon and Suh, 2004) conducted researches on customer satisfaction respectively; the findings had shown that superior service quality leads to customer's satisfaction and improved corporate image. Furthermore, it resulted in positive word of mouth recommendation and enhanced customer's satisfaction.

2.6 Theoretical Framework

A number of theories and models have emerged over the years to explain what service quality is and the behavioural influence it has on the customer satisfaction in healthcare sector. Some of these theories include; Expectancy-Disconfirmation theory, Assimilation theory, Gap Model, among others. The Gap Model explained below is the premise upon which this study rests.

Gap 1: This gap is the customer expectations- manager perceptions gap. This gap presents itself as the difference in expectations and perceptions regarding security and privacy. The lack of interaction between executive management and patients results in misunderstandings of both the demands and needs required to be fulfilled to improve patient satisfaction ratings. The theoretical constructs which govern this gap include: market research orientation, upward communication and the number of levels of management which customer contact personnel need to work through (Zeithaml, Bitner, & Gremer, 2006). Gap 2: Healthcare facilities also face problems in reacting to the services expected from patients. This gap is the difference between the management perception of patient expectations and service quality specifications. The constructs which govern this gap include aspects of management commitment to service quality, goal-setting, task standardization and perception of feasibility (Zeithaml *et al*., 2006). Gap 3: Is the difference between service quality specifications and the actual service delivered. This is a particularly difficult aspect due to the inconsistency of patient behavior.

Gap 4: This is the service delivery and external communications gap. Healthcare facilities do not always succeed in informing patients of their endeavors to meet their expectations and deliver on promises. As a result patient expectations are not aligned to the goals and strategies of the facility. If patients know what they are entitled to, there will be less discrepancy in the expectations versus perception gap. Gap 5: This gap is described as the level of service expected from the provider versus the perceived service. Expectations are viewed as the standards the patient applies to the service experience, while perceptions are the subjective analysis of the actual experience. Decreasing this gap is imperative for healthcare facilities to ensure satisfied patients (Akter, Upal & Hani, 2008).The five quality service model was described by Parasuraman, *et al.,* (1985) as an expansion on the SERVQUAL tool and it is ruled by the expectation of continuous improvement of five qualities; quality of object; quality of process; quality of infrastructure; quality of interaction; quality of atmosphere with emphasis on relationship building (Zineldin,2000). While the 5Qs model may be an appropriate method of ascertaining organization-wide

quality (Zineldin, 2006; Zineldin, 2000), therefore, this study is based on the premise that using Gap perspective methodology is most appropriate in the assessment of service quality perception and satisfaction relationship.

3.0 Methods

This study utilized descriptive and cross-sectional design. Adoption of cross sectional design for this study was necessitated by the fact that it enabled researchers to collect relevant data on variables of interest simultaneously thereby permitting a closer examination of patterns of relationships among variables (Sekaran & Bougie, 2013). Descriptive statistics summarize data in graphical, tabular or numerical form (Odagboyi, 2009). Primary source of data collection was used for this study. This was suitable for the research because respondent's opinions were obtained through the instrument and it was very convenience for collection of data. Questionnaire was designed based on the work of previous study such as (Boshoof *et al.*, 2004). Thus, structured questionnaire was used as a source of data collection for this study. The population for this study was made up of all the out-patients and in-patients of the hospital who were adults, and were either living in Nasarawa State or outside the States like Kogi state, Benue State and Federal Capital Territory Abuja. A total of one hundred (110) respondents participated in the study and were selected through random sampling technique.

3.1 Research Instrument and Measurement

The research instrument for this study was a self- administered structured questionnaire and its content included questions about the six proposed dimensions such as; reliability, responsiveness, assurance, empathy, tangibility, corporate image and (customer satisfaction) as well as questions seeking information related to demographic profiles of respondents. The basic steps employed in constructing the scale in this research also closely parallel with the procedures recommended by Kim and Kim (2005). The initial survey instrument was developed incorporating a pool of 29 items: assurance-4; corporate image- 3; empathy- 4; reliability- 5; responsiveness- 4; tangibility- 4; and customer satisfaction- 5. Responses to the items on the questionnaire were measured on 5 point Likert measuring scale. Specifically, all of the items were elicited on five-point scales ranging from 1 for-strongly agree; to disagree- 2; to undecided- 3; to agree- 4; and strongly agree- 5. Confirmatory factor analysis using Structural Equation Model (PLS-SEM) was used to test the convergent and discriminant validity of the instrument. The research instrument was developed in English and adequacy of its wordings, face validity and content validity were confirmed by the experts in the field of marketing and the industry experts.

3.2 Indicator reliability

The indicator reliability was measured by the indicators' outer loadings and it was referred to the level of association between the indicators. A high outer loading implied that the associated indicators have much in common and could be said to be related. Hair, Hult, Ringle, and Sarstedt (2014) suggested that all outer loadings should be statistically significant. By convention, the value of indicator outer loading should be 0.7 or above.

Therefore, the indicators loadings for this study were larger than the minimum acceptable threshold of 0.4 and above the preferred level of 0.7 (Hulland, 1999). Thus, indicator reliability for this research was confirmed. Essentially, all the t-values for the items were more than the significant level of 1.96, and with p-values of less than 0.05% level of significant.

3.3 Convergent validity

Convergent validity is referred to the extent to which there is an agreement among several indicators in measuring the same construct (Hair, *et al.*, 2014). The indicators were expected to share a high proportion of variance. The AVE is the total average of the squared loadings of the indicators connected with the latent variable. Hair *et al*. (2014) opined that since AVE is the square root of the outer loadings it was important that outer loadings should be 0.708 and above because 0.708 squared was equal to 0.50. In order to assess the convergent validity of the research model each constructs AVE was extracted from the path algorithm results. The path algorithm result showed that all the constructs have AVE values higher than the minimum value of 0.5. Therefore, the AVE value for assurance was 0.650; corporate image has an AVE of 0.531; customer satisfaction was 0.578; empathy has an AVE of 0.531; responsiveness was 0.667; reliability was 0.569; and tangibility has AVE of 0.666. All of the AVE values are above the threshold of 0.5 and satisfactory.

3.4 Discriminant validity

Discriminant validity implied the extent to which indicators differentiated the construct it was associated with from other constructs in the model (Hair *et al*., 2014). The criterion used for assessing discriminant validity is through the Fornell and Larcker (1981) criteria. The criterion suggested that for discriminant validity to be confirmed the square root of AVE for a particular construct must be higher than its correlation with any other construct in the model.Therefore, value of the square root of AVE for all the constructs in the model was above the correlation. A quick looking at the correction matrix in table 3.1 illustrated that there was no indicator that loaded higher in another construct than in the construct that it had measured. Therefore, the correlation matrix shown that the indicators discriminated between the constructs hence discriminant validity was established. Thus, assurance- 0.806; corporate image- 0.729; customer satisfaction- 0.760; empathy- 0.729; reliability- 0.754; responsiveness- 0.817; and tangibility- 0.816. It could be concluded that the measurement scales of the constructs were stable and consistent in measuring the constructs.

Table 3. 1: Discriminant Validity using Fornell and Larcker Criterion

	AS	**CI**	**CS**	**EM**	**RB**	**RP**	**TB**
Assurance	**0.806**						
Corporate Image	0.716	**0.729**					
Customer Satisfaction	0.759	0.722	**0.760**				
Empathy	0.717	0.714	0.724	**0.729**			
Reliability	0.751	0.710	0.727	0.671	**0.754**		

Responsiveness	0.732	0.720	0.744	0.677	0.702	**0.817**	
Tangibility	0.794	0.720	0.701	0.564	0.706	0.733	**0.816**

Source: SmartPLS 3.0 Output, 2019

3.5 Internal Consistency Reliability of instrument

Cronbach's alpha is used to measure internal consistency reliability in social science research, but it tended to provide a conservative measurement in PLS-SEM (Wong, 2013). Prior literature had suggested the use of composite reliability as a replacement, thus, values larger than 0.6 were considered adequate. It was observed that all calculated alpha values should be above 0.6 Nunnally (1978) that would express a good internal consistency among items within each construct. Consequently, all the statements under each variable were subjected to this test to establish internal consistency reliability of data for the research to avoid the results being spurious. For the purpose of internal consistency, composite reliability coefficient was computed. This normally ranges between 0 and 1 with higher values indicating higher reliability among the indicators (Hair, Black, Babin, Anderson & Tatham, 2007). This is to say the closer composite coefficient is to 1.0 the greater the internal consistency of the items in the scale. Thus, the service quality dimensions have exhibited the following composite reliability as: assurance- 0.847; corporate image- 0.819; empathy- 0.818; reliability- 0.833; responsiveness- 0.855; tangibility- 0.856; and customer satisfaction- 0. 843. All the composite reliability values are above the threshold of 0.6 and been established and considered satisfactory for the internal consistency reliability.

Table 3.2: Predictive Relevance (Q^2)

Endogenous Latent Variable	R-Square	CV Redundancy	CV Communality
Customer Satisfaction	0.804	0.406	-

Source: SmartPLS 3.0 Output, 2019

Table 3. 3: Path Coefficients and Hypotheses Testing

Hypotheses	Path/ Relationship	Std. Beta	Std. Error	T-value	P-value	Decision
H_1	Assurance -> Customer Satisfaction	0.153	0.082	1.869	0.062	Supported
H_2	Corporate Image -> Customer Satisfaction	0.248	0.105	2.360	0.018	Rejected
H_3	Empathy -> Customer Satisfaction	0.203	0.103	1.981	0.048	Rejected
H_4	Reliability -> Customer Satisfaction	0.298	0.101	2.963	0.003	Rejected
H_5	Responsiveness -> Customer Satisfaction	-0.037	0.104	0.354	0.723	Supported
H_6	Tangibility -> Customer Satisfaction	0.117	0.118	0.992	0.321	Supported

H_7	Responsiveness x Gender -> Customer Satisfaction	0.001	0.126	0.009	0.993	Supported

Source: SmartPLS 3.0 Output, 2019

Table 3.3 above showed the results between the service quality dimensions and the customer satisfaction in the hospital.

3.6 Method of Data Analysis

One hundred and ten (110) copies of questionnaire was administered on the patients, but ten (10) of the copies were removed as a result of various errors. The returned one hundred (100) questionnaire was serially numbered, coded and entered into excel package for onward export to PLS-SEM for data analysis. Therefore, PLS-SEM, descriptive, inferential statistics and SPSS were used to analyze the data.

4. 0 Results and discussion of Findings

A total of 110 respondents participated in the research, 10 questionnaire was removed as a result of various errors and 100 copies were used for this study. The basic characteristics of the respondents showed that the sample consisted of 65 male (65%) and 35 female (35%). In terms of educational qualifications, 15 (15%) had certificates in Doctors of philosophy (PhD), 26 (26%) had masters degree, and about half of the respondents 32 (32%) had Bachelor degrees/ Higher National Diploma certificates. Similarly, 20 (20%) had National Certificate in Education/ National Diploma certificate, and the remaining 7 (7%) others had secondary school certificates. The age of the respondents varied as 40 (40%) were between 18-40 years; 45 (45%) were between 41-50 years; while the remaining 10 (10%) had their ages 50 years and above. The respondents whose residences were in Keffi, 45 (45%) and the remaining whose residences were outside the state, e.g. Kogi state and Federal Capital Territory Abuja occupied 55 (55%). As for the business activities of the respondents; it was found that 25 (25%) were professionals (Layers or Accountants); 45 (45%) were students; and 30 (30%) were civil servantsFrom table 3.2 above (predictive relevance), the measure of the relationship between service quality dimensions (endogenous latent variable) such as assurance, corporate image, empathy, responsiveness reliability; and tangibility was jointly represented by the predictive relevance value of R^2 0.804 i.e. 80% for the service quality dimensions in Federal Medical Centre, Keffi, Nasarawa State. This result implied that only 80% of the variables jointly accounted for the customers' satisfaction in the hospital while the remaining 20% was explained by other factors not captured in this study. Henseler, Ringle, and Sincovics (2009) posited that model quality of 0.75 and above was substantial; 0.50 was moderate; and 0.25 was weak. Therefore based on Hensele *et al*, (2009) criteria the model was substantial.Results from table 3.3 indicated that only three attributes of service quality were significant which are corporate image (β= 0.248, t= 2.360, p> 0.018); the result was consistent with prior finding of (Sarfraz, Ashraf, Iliyas, Imtiaz & Ahmad, 2018). Empathy (β= 0.203, t= 1.981, p> 0.048); the result was consistent with prior finding of Debasish, Thuleswar, and Dimpi (2015), and reliability (β= 0.298, t= 2.963, p> 0.003); the result was

not consistent with prior finding of (Jamaluddin, Endang, and Ruswanti, 2017). However, four constructs were found insignificant which were assurance (β= 0.153, t= 1.869, p< 0.062); the result did not agree with prior finding ofParidhi, **(**2017); responsiveness; (β= -0.037, t= 0.354, p< 0 .723); the result was inconsonant with prior finding of Omar, *et al.*, (2016); tangibility (β= 0.117, t=0.992, p< 0.321), the result was not in agreement with prior finding of Nguyen and Nguyen (n d), and gender (β= 0.001, t= 0.009, p< 0.993); the result was consistent with prior finding of (Qaisar, Adeel, and Basheer, 2016). This result indicated that the healthcare provider should note that it is dealing with two sets of customers; male and female and their differences need to be taken into account if the management wants to improve services and customers' satisfaction in the hospital.

4.1 Conclusion

This study sought to examine the relationship between service quality and customers' satisfaction using gender as moderator in Federal Medical Centre, Keffi, Nasarawa State. The study concluded that the findings of this research could potentially provide an important contribution and inputs which would be useful in the process of decision making within the management of the hospital geared towards improvement of customers' satisfaction in the hospital. The findings could imply that the management might be ineffectively expending resources inappropriately on the service quality dimensions. Hence squandering financial resources on the service quality dimensions that least contributed to increased customer satisfaction in the hospital.The hospital management should prioritize training of their staff in the skills of service quality delivery leading to customers' satisfaction and motivate the staff with rewards or other incentives for them to be willing to improve on their work for customers' satisfaction to be attained in the hospital.

5.0 Recommendations

Based on the findings and the conclusion reached in this study, the following recommendations were made:

i. The hospital's management should prioritize training of their staff in the skills of service quality delivery leading to customers' satisfaction, and motivate the staff with rewards or other incentives for them to be willing to improve on their work for customers' satisfaction to be attained in the hospital.

ii. Finally, management should use the right service quality dimensions so that the impact would be felt by the customers with the right indicators. By doing so, a large number of customers would be satisfied. This could help to increase customers' satisfaction leading to improving the service quality of the healthcare operator in Nigeria.

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