

# Towards an Improved Health Service Quality Delivery and Patient Loyalty: Does Satisfaction Really Matter?

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## Abstract

The healthcare industry in developing nations has chronicled high development rate in our current dispensation. This study sought to identify the most critical factors in hospitals related service delivery quality that will drive loyalty and hence ensure the survival and success of the hospital in the future; it ideally tested if the satisfaction of a patient had any role to play in such relationship. This study was conducted using data from (562) patients who received services from (4) four major but different private hospitals in Ghana. The five Service Quality dimensions; Tangibility, reliability, responsiveness, assurance and empathy, patient satisfaction and loyalty to the hospital were the variables well-thought-out for this study. A path analysis was done utilizing SmartPLS V3.2.8; a second-generation multivariate data analysis method (PLS-SEM) in order to compute path coefficients, direct and indirect effects of the variables on patient's satisfaction and also loyalty to the hospital. The study

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prompted that empathy, responsiveness and tangibility (not assurance and reliability) impact patients' satisfaction and patient's satisfaction is directly related to patients' loyalty to the hospital/clinic.

**Keywords:** Private Health/Clinic, Service Quality, Patient Loyalty, Satisfaction, PLS-SEM.

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## Introduction

The clinic industry has ended up very competitive in recent times (Choné, 2017) and the healthcare industry in developing nations like Ghana, like any other has a high request for its services from both outside and neighboring patients; in spite of limitations such as the lacking sum of clinic beds and deficiency of profoundly qualified doctors (Anabila, 2019). Clinics are curious about recognizing the most basic components in clinics service delivery that, if managed well, will ensure survival and success within the service provision in the future and beyond (Ferdousi, 2014). Healthcare organizations are subsequently, obliged to be more inventive and innovative in engaging clients, by endorsing products, services and administrations that best addresses needs and command patronage by its clients (Asnawi, Awang, Afthanorhan, Mohamad, & Karim, 2019). It's in this manner, without any equivocalness that clinics need to endeavor with measures to always assess the patient's needs and expectations towards service delivery (Asnawi et al., 2019) and guarantee the patients' satisfaction towards the hospital and its administrations as a whole (Naidu, 2009), which transcendently draws positive clientele behavioral intent or general demeanor (Wu, 2011). Even though many studies have linked the connection between quality of service by service providers and clientele loyalty as a critical objective in service delivery because of its critical role in creating and keeping up their long-term competitive edge (Amin & Zahora Nasharuddin, 2013), the viability of service quality in literature has long been associated with customers' satisfaction in reaction to desire and anticipation of the service and is an affirmation that corresponds with swift improvement and current patterns within the healthcare delivery field (Aliman, Mohamad, & Sciences, 2016).

In spite of the fact that there's little to no competition in most of our public clinics, in populous and developing nations like Ghana, clientele satisfaction still remains continuously a key figure in measuring our success (Pizam, Shapoval, & Ellis, 2016) as good client service is required in clinics to enable well-being workers to satisfy their patients by perspective (Frankel & Sherman, 2015). Similarly, (Anbori, Ghani, Yadav, Daher, & Su, 2010) in their work which examined the connection of quality service measurements to loyalty, appeared that the satisfaction of the patient had a solid impact on the patient's willingness to return to the hospital. Further, (Kitapci, Akdogan, Dortyol, & Sciences, 2014) who tested the framework of Parasuraman et al.'s SERVQUAL on patients from a cross-sectional study in a hospital found the service quality dimensions having a positive relation with the customers satisfaction, and that, satisfaction of the customers significantly affected repurchase intents and word-of-mouth communication

of the patients. A hospital's principal goal in building patient loyalty; is foremost understanding the link between specific dimensions of quality healthcare service delivery, patient satisfaction, and hence patient loyalty. Connecting the conceptual and empirical measurement of the relationship between these dimensions of quality of service, satisfaction of the patients and hence their loyalty to the hospital is key into turning concepts into a core marketing instrument (Farooq et al., 2018).

In developing countries like Ghana, the government subsidizes the healthcare costs of patients by way of a national health insurance scheme in public hospitals and a few approved private hospitals in a quest to reducing financial burden for the general populace and ensue access to primary healthcare for all with little or no financial shocks. Nonetheless, this then drives the over-reliance of densely populated patients on the services of these public hospitals who are in principle nonprofit making entities, leading to patients experiencing low or no forms of customer service satisfaction at all. With this total seller market, and unmet needs, these patients have little to no option than to return to the same hospitals and its services that leave them dissatisfied (Anabila, 2019; Bucher, Jäger, & Prado, 2016). Although measurement of service quality has gotten an extraordinary bargain of attention, yet service quality of the clinic industry in developing nations like Ghana still remains one with an exhaustive examination required (Boadi, Wenxin, Bentum-Micah, Jerry, & Technology, 2019; Paul, Sahadev, & Services, 2018; Tenkorang & Reform, 2016). Regardless of undocumented report of outcries of customers (patients) by the media, most of these investigate into the service provisions and delivery by healthcare providers have only to a larger extent conducted in public clinics. The extant literature does not address this connection in the context of private hospitals in developing countries as Ghana as described in the foregoing lines of assertions. This study, therefore, seeks to fill this crevice in literature. Above and beyond, there is no well-designed study examining the exact effect of each of the SERVQUAL dimensions on patient's satisfaction and loyalty in a developing country like Ghana. Essentially, the use of variance based structural equation model (PLS- SEM), has not been tested in this setting yet. And so, our investigation will also determine the most vital quality measurements and their predictive estimation and significance on the patient's loyalty. Further, based on the precepts; does the connection of service quality and loyalty if any relate to the level of patient satisfaction? What is the role of patient satisfaction in bringing about customer loyalty?

Based on these questions we arrive that given the past empirical findings, it would be reasonable to hypothesize the positive impacts of the SERVQUAL dimensions on patients' loyalty via enhancing their level of satisfaction, implying a mediation relationship. Thus, this study aimed at examining the hypothesized mediation model in which the impact of the SERVQUAL dimensions on patients' loyalty is mediated through patients' satisfaction in the private healthcare delivery sector in Ghana. The study finding can inform health care system- level changes for enhancing the patient's attitudes and perceptions e.g., patient's perceptions about service quality and loyalty.

Grounded on these queries we attain the following hypothesis:

***Hypothesis 1: All the SERVQUAL dimensions equally impact the patient satisfaction in private health delivery.***

**Hypothesis 2:** All the SERVQUAL dimensions equally impact patient loyalty in private health delivery.

**Hypothesis 3:** Patient satisfaction has a mediating role in increasing patient loyalty via the effects of the SERVQUAL dimensions.

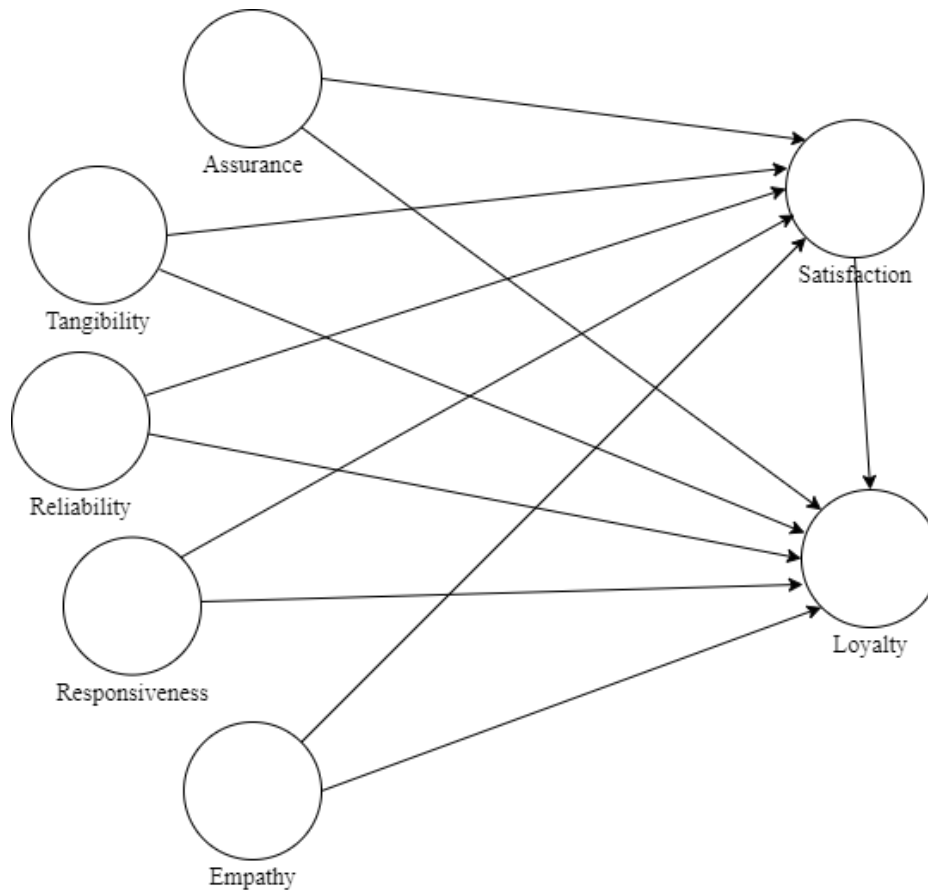


Figure 1. Conceptual Framework of The Study

## Methodology

### *Data Source and Collection*

Data for the present analysis were collected from a cross-sectional study conducted with outpatients from four major private hospitals in Ghana adopted from Parasuraman et al., (1985) servqual scale. The target population for this study was identified as all outpatients who have used services of the selected hospitals between March and June of 2019. Utilizing census sampling method and informed consent obtained from all individual participants included in the study inside waiting rooms of the clinic's, outpatients were recruited. Trained interviewers were present at the information collection and gave help as required. Normal time to complete the survey extended from 15 to 30 minutes as the case may be. Patients were included in the studies in the event that they consented to take part in the study, were proficient in English, and were physically and rationally able to complete the survey at the time of information collection

with identifiable personal information not recorded to maintain confidentiality of the respondents. From the selected hospitals, 562 outpatients completed the survey anonymously out of the 700 questionnaires distributed to outpatients who had used the hospitals' services, the 562 (80%) valid returned questionnaires were then used for the analyses.

### *Study Variables*

Patient's demographic statistics was collected regarding the patient's gender, birth year, education (i.e., senior high school/technical secondary school, tertiary, postgraduate or other forms of formal or technical education) and employment type (i.e., student, self-employed, wage employed or unemployed). In adding, whether or not patients were outpatients was also recorded as control variables, in addition to whether or not patients benefitted from the SERVQUAL dimensions.

Our dependent variable was patient loyalty to the hospital as an unidimensional measure of patients' interpersonal trust in the clinic's and its services and reflects three overlapping concepts: repurchase, recommendation and positive word-of-mouth, measured via a two single-item with 5 Likert-type response categories: strongly agree, agree, neutral, disagree, and strongly disagree, with higher scores indicating greater loyalty to the hospital. The constructs validity and reliability (measured using the composite reliability (CR) as proposed as more appropriate as it considers the indicators' differential weights, whilst the Cronbach's alpha weights the indicators equally) of the patients' loyalty amongst the study population was 0.868.

Patients' perceived quality of service was examined using a previously tested perceived service quality index; SERVQUAL dimensions. (Parasuraman, Zeithaml, & Berry, 1988) SERVQUAL is composed of 22 items with 5 Likert-type response categories: strongly agree, agree, neutral, disagree, and strongly disagree, used as a reflective post-usage measure of a product or service. However, this study's final questionnaire included a total of 17 items of the 5 quality service dimensions modified for this study, out of which three items belonged to each of the dimensions. Higher scores indicated better perceived service quality of the dimension. The constructs internal validity and reliability (measured using the composite reliability (CR) as proposed as more appropriate as it considers the indicators' differential weights, whilst the Cronbach's alpha weights the indicators equally) of the SERVQUAL dimensions among the study population was Reliability: 0.907, Assurance: 0.896, Tangibility: 0.854, Empathy: 0.883, Responsiveness: 0.894.

Further, patients' general demeanor; satisfaction of the service, which is a measure of the difference in expectations and perceptions of the service received based on the service quality dimensions, were measured utilizing a two single item measure with 5 Likert-type reaction categories: (exceptionally satisfied, satisfied, neutral, unsatisfied, or exceptionally unsatisfied). Patients were inquired about their satisfaction with the service: (exceptionally satisfied, satisfied, neutral, unsatisfied, or exceptionally unsatisfied), and likewise about the degree of trust they have in the clinic that they gotten healthcare at (very trustworthy, somewhat trustworthy, neither, somewhat untrustworthy, or very untrustworthy).

## *Statistical Analysis*

Data was analyzed using SmartPLS version 3 (Ringle, Wende, & Becker, 2015), and variance-based PLS-SEM approach was adopted. This is because PLS-SEM can estimate both the causal and predictive relevance of all latent constructs simultaneously while dealing with measurement errors in the structural model (Hair, Hollingsworth, Randolph, Chong, & Systems, 2017; Ringle et al., 2015). Also, our study is explanatory in nature; therefore, PLS-SEM is the best for this study. Considering the guidelines suggested by (Hair et al., 2017), the measurement models were evaluated separately before the evaluation of the structural model. The data was tested for any possible statistical errors of normality, outliers, missing values and missing demographic characteristics with none detected. The analysis began with a brief description of demographic attributes of respondents in terms of their age, gender, education and employment status, which described the patients' characteristics utilizing mean, standard deviation with frequency and percentages. Using four separate regression models the hypothesized mediation effects were examined by way of a path analysis using SmartPLS 3.2.8 structural equation model (SEM); see (Figure 2). All the models controlled for (e.g., age, sex, education and employment status) at a significance level of 0.05. The first model tested the effects of the servqual dimensions on patients' loyalty to the clinics. The second model tested the effect of the servqual dimensions on patients' satisfaction. The third model tested the effect of patients' satisfaction on patients' loyalty to the clinic, whilst the last model tested the effects the servqual dimensions and patients' satisfaction on patients' loyalty. Using the VIF, multicollinearity was not observed amongst the independent variables and covariates. The indirect effects, estimated using the standardized regression coefficients, was tested using the PLS-SEM approach so as all statistical analyses performed using Smart-PLS 3.2.8.

## **Results**

### *Demographic Characteristics*

The data was tested for any possible statistical errors of normality, outliers, missing values and missing demographic characteristics but none was detected. The analysis began with a brief description of demographic attributes of respondents in terms of their age, gender, education and employment status. Out of a total of 562 respondents, 295 (52.5%) were females, while 267 (47.5%) were male. 204 (36.3%) of the respondents were between the ages 18 and 29 years, as 243 (43.2%) accounted for respondents between the ages 30 and 44 years. In count, 88 (15.2%) of the respondents were between 45 and 59 years whilst 27 (4.8%) were 60 years and above. Only, 25 (4.4%) had a master's degree or above, with the remaining respondents of 537 (95.6%) cut across a bachelor degree or equivalent, high school certificate and below secondary education. The self and wage employed accounted for high respondents in the employment category 429 (76.4%), with students and the unemployed following in, at that respective order 133 (23.7%).

Table 1: Description of demography

Items	Characteristics	Frequency (N=562)	Valid Percentage (%)
Gender	Male	267	(47.5)
	Female	295	(52.5)
Age	18-29	204	(36.3)
	30-44	243	(43.2)
	45-59	88	(15.2)
	60 above	27	(4.8)
Education	Secondary	238	(42.3)
	Tertiary	99	(17.6)
	Postgraduate	25	(4.4)
	Others	200	(32.6)
Employment	Student	82	(14.6)
	Self employed	187	(33.3)
	Wage employed	242	(43.1)
	Unemployed	51	(9.1)

Source: *Fieldwork, 2019* (N) = Population Size

### *Analysis of Measurement Models*

To establish the internal consistency reliability as well as the convergent and discriminant validity as suggested by (J. Henseler, Ringle, & Sarstedt, 2015; J. J. I. M. Henseler & Systems, 2016), the composite reliability (CR) is proposed as more appropriate, as it considers the indicators' differential weights, whilst the Cronbach's alpha weights the indicators equally. The composite reliability (CR) and average variance extracted (AVE) gotten after running the measurement model via PLS-SEM are assumed in Table 2. Fixed on the results, the composite reliability (CR) of all constructs was above 0.7 and average variance extracted AVE above 0.5 (Hair et al., 2017). By principle, the acceptable convergence is an average variance extracted (AVE) > 0.50, and signifying that more than half of the indicator variance is encompassed in the construct score (Hair et al., 2017). Establishing discriminant validity means that each construct captures a unique phenomenon not embodied by any other construct in the model (Hair et al., 2017), and so for the measure of discriminant validity, we adopted the Fornell-Larcker Criterion (FLC) given in Table 2 as proposed by (J. J. I. M. Henseler & Systems, 2016; J. J. Q. Henseler & Quantity, 2018). The measurement model findings suggest compliance with the requirements for convergent and discriminant validities (Hair et al., 2017).

Table 2: Validity and Reliability of constructs

Latent Variables	Indicator	Loadings >0.70	Composite Reliability	Average Variance Extracted (AVE) >0.50	Discriminant Validity
Assurance	Ass1	0.834	0.60~0.90 0.896	0.742	Yes
	Ass2	0.896			
	Ass3	0.852			
Empathy	Emp1	0.854	0.883	0.716	Yes
	Emp2	0.847			
	Emp3	0.837			
Reliability	Rel1	0.892	0.907	0.766	Yes
	Rel2	0.871			
	Rel3	0.861			
Responsiveness	Res1	0.833	0.894	0.739	Yes
	Res2	0.901			
	Res3	0.843			
Tangibles	Tan1	0.832	0.854	0.661	Yes
	Tan2	0.766			
	Tan3	0.839			
Satisfaction	Sat1	0.813	0.831	0.712	Yes
	Sat2	0.874			
Loyalty	Loy1	0.868	0.868	0.767	Yes
	Loy2	0.884			

Source: Authors contribution; Discriminant Validity (Fornell-Larcker Criterion (FLC)), Note: Yes (square root of AVE > the correlation of the construct).

### *Evaluation of structural model*

Significance of relationships of the constructs was assessed based on path coefficients. The path diagram (Figure 2) shows the regression weights with their significance levels of the servqual dimensions on patient satisfaction and patient loyalty, and regression weight of patient satisfaction on patient's loyalty to the hospital/clinics.

Table 3 shows path coefficients of the direct, indirect and total effects of Tangibility, Empathy, Assurance, Responsiveness, and Reliability on Patient satisfaction and Patient loyalty and also the direct effects, indirect and total effects of patient's satisfaction on patient's loyalty to the hospital/clinic with their significance levels. Only Assurance ( $\beta = 0.018$ ;  $t$ -value = 0.509;  $p = 0.611$ ) amongst the 5 dimensions proved to have no direct effect on the satisfaction of the patient, with Reliability ( $\beta = 0.050$ ;  $t$ -value = 0.954;  $p = 0.340$ ) and Tangibility ( $\beta = 0.076$ ;  $t$ -value = 1.238;  $p = 0.216$ ) also having no direct effect on the patients loyalty to the hospital/clinic per this study and it findings yet confirms the findings of the works of (Hu, Cheng, Chiu, & Hong, 2011; Meesala, Paul, & Services, 2018). Patient's satisfaction of course did suggest to have a direct effect on Patients' Loyalty to Hospital/Clinics in this study and interestingly, affirming the insight that if the main goal of a research of such kind is to identify the factors that highlight patient satisfaction, and patient loyalty, then the SERVQUAL dimensions still proves relevant, since barely two of the five dimensions of SERVQUAL appeared irrelevant in this study setting and context, bearing the reaffirming repetition of the dimension even in this



current dispersion and trend. However, caution is prompted within the utilization of SERVQUAL in the event that the context is characterized by developing nations, data asymmetry, and more importantly patients depending intensely on alluding physicians' counsel for choice of service suppliers.

Table 4 on the path coefficient analysis shows the indirect effects of Tangibility, Empathy, Assurance, Responsiveness, and Reliability on Patient's Loyalty to the Hospital/Clinic. Assurance ( $\beta = 0.005$ ;  $t$ -value = 0.495;  $p = 0.621$ ) and Reliability ( $\beta = 0.020$ ;  $t$ -value = 1.794;  $p = 0.073$ ) among the servqual dimensions suggested to have no indirect effects on Patient's Loyalty to the Hospital/Clinic per the study results and context, as they were statistically insignificant with the intervening (mediating) variable been Patient satisfaction. These findings are in line with those of (Caruana, 2002). With Empathy ( $\beta = 0.104$ ;  $t$ -value = 3.555;  $p = 0.000$ ), Responsiveness ( $\beta = 0.079$ ;  $t$ -value = 2.974;  $p = 0.003$ ) and Tangibility ( $\beta = 0.043$ ;  $t$ -value = 2.116;  $p = 0.034$ ) showing indirect effects on patient loyalty via the mediation effect of patient satisfaction, it's interesting to also note that the results suggested their total effects (Servqual Dimensions) which is obviously their indirect effects mediated by the patients satisfaction, only had Tangibility ( $\beta = 0.043$ ;  $t$ -value = 2.116;  $p = 0.034$ ) having a full mediation effect with Empathy ( $\beta = 0.104$ ;  $t$ -value = 3.555;  $p = 0.000$ ), and Responsiveness ( $\beta = 0.079$ ;  $t$ -value = 2.974;  $p = 0.003$ ) having a partial mediation effect via the patients satisfaction. This further posits that the mediating role of patient satisfaction is very high and crucial, since it carries the indirect effects of responsiveness, empathy and tangibility influences to drive patient loyalty.

Per our findings, all the constructs to this study had a role to play in driving patient loyalty in the expression of quality service delivery. However, the most critical factors to consider to drive these effects are when the patients feel satisfied in the light of (1): Timely delivery of services, (2): Caring employees, (3): The hospital's staff give patients personal attention. (4): The hospital has patients' best interests at heart, (5): Convenient consultation hours with and the medical services have fulfilled patient's expectation, (6): The hospital has up to date equipment, (7): Hospital's physical facilities are visually appealing and (8): Hospital's staff been well dressed. Essentially, these are areas in (Hospital/Clinic) service delivery the hospitals can't afford to fail as they drive higher and critical hospital success.

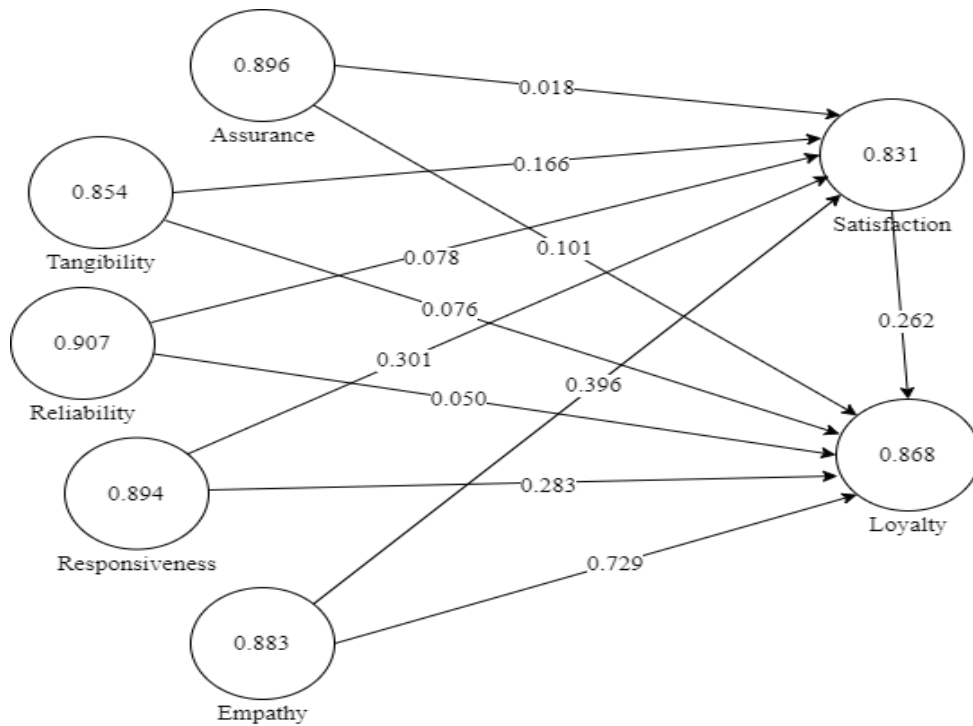


Figure 2. Tested mediation model

Table 3: Path coefficients of the structural model; direct and total effects of constructs

Dimensions	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Assurance -> Loyalty	0.101	0.099	0.045	2.249	0.025
Assurance -> Satisfaction	0.018	0.019	0.036	0.509	0.611
Empathy_ -> Loyalty	0.729	0.730	0.062	11.720	0.000
Empathy_ -> Satisfaction	0.396	0.398	0.051	7.771	0.000
Reliability -> Loyalty	0.050	0.049	0.052	0.954	0.340
Reliability -> Satisfaction	0.078	0.078	0.039	1.995	0.046
Responsiveness_ -> Loyalty	0.283	0.284	0.055	5.161	0.000
Responsiveness_ -> Satisfaction	0.301	0.300	0.061	4.954	0.000
Satisfaction -> Loyalty	0.262	0.261	0.067	3.894	0.000
Tangibility -> Loyalty	0.076	0.078	0.061	1.238	0.216
Tangibility -> Satisfaction	0.166	0.165	0.063	2.643	0.008

Source: Authors contribution using Smart-PLS 3.2.8; Regression weights: (ungrouped)

Based on the results of the research, we consider the status of hypotheses as follows:

**Hypothesis: 1** is rejected since all the SERVQUAL dimensions do not equally impact patient's satisfaction. All but Assurance.

**Hypothesis: 2** is also rejected since all the SERVQUAL dimensions do not equally impact patient's loyalty. All but Tangibility and Reliability.

Table 4: Indirect and total effects of constructs

Effects of The Constructs	Original Sample	Sample Mean	Standard Deviation	T Statistics ( O/STDEV )	P
Assurance -> Satisfaction -> Loyalty	0.005	0.005	0.010	0.495	0.621
Empathy -> Satisfaction -> Loyalty	0.104	0.104	0.029	3.555	0.000
Reliability -> Satisfaction -> Loyalty	0.020	0.020	0.011	1.794	0.073
Responsiveness -> Satisfaction -> Loyalty	0.079	0.078	0.026	2.974	0.003
Tangibility -> Satisfaction -> Loyalty	0.043	0.043	0.020	2.116	0.034

Source: Authors contribution using Smart-PLS 3.2.8

**Hypothesis: 3** is fully accepted since there is an evidence for the mediating role of patient satisfaction on loyalty.

For ease of visual checking, the hypotheses and their status after research are set out in the Table 5 below:

Table 5: Statuses of Hypothesis based on the findings of the study

Hypothesis Number	Hypothesis	Status After Research
Hypothesis 1	All the SERVQUAL dimensions equally impact the patient satisfaction in private health delivery.	Reliability, Responsiveness, Empathy and Tangibility contribute significantly to patient satisfaction but Assurance does not.
Hypothesis 2	All the SERVQUAL dimensions equally impact patient loyalty in private health delivery.	Responsiveness, Empathy and Assurance impact patient loyalty but Tangibility and Reliability, does not.
Hypothesis 3	Patient satisfaction has a mediating role in increasing patient loyalty via the effects of the SERVQUAL dimensions.	Patient satisfaction mediates the relationship of empathy responsiveness and Tangibility with patient loyalty.

Source: Authors contribution using SmartPLS-SEM.

## Discussion

By means of a cross- sectional data from four major private hospitals across Ghana, this study attempted to examine the effects of the Servqual dimension on patients' loyalty

to hospitals/clinic's services and if satisfaction of the patients had any role to play to this effect depicting a mediation analysis. The study showed that as many patients who benefitted from the Servqual dimensions testified higher satisfaction and more loyalty to the hospital/clinic's services thereof. The mediation analysis indicated that both benefitting from the Servqual dimensions and satisfaction of the patient emanating from the quality of service via the Servqual dimensions are predictors of patients' loyalty to the hospital/clinic's services in private healthcare delivery, and the effects of the Servqual dimensions on patients' loyalty to the hospitals/clinic's services was fully (Tangibles) and partially (Empathy and Responsiveness) mediated through the patients' level of satisfaction of the services received.

The Servqual dimensions for assessing the quality of services rendered as proposed by (Lee, 2017) is intended to reduce or eliminate differences in expectations and perceptions of services that birth either satisfaction or dissatisfaction, and this study suggests the positive impacts of these dimensions on patients' loyalty to hospital's/clinics via the level of subjective satisfaction judgement of the patient.

As hypothesized, the study found that as many patients who found resonance in the dimensions as predictor of their level of satisfaction, were also more likely to report greater perceived service quality, and this is in line with previously- reported relationship between satisfaction and perceived quality of healthcare services (Anabila, 2019; Meesala et al., 2018; Tenkorang & Reform, 2016). The most imperative facets the hospital managers need to focus on, based on the findings of our research, are (1): Timely delivery of services, (2): Caring employees, (3): The hospital's staff give patients personal attention. (4): The hospital has patients' best interests at heart, (5): Convenient consultation hours with and the medical services have fulfilled patient's expectation, (6): The hospital has up to date equipment, (7): Hospital's physical facilities are visually appealing and (8): Hospital's staff been well dressed. In essence, these are areas in (Hospital/Clinic) service delivery the hospitals can't afford to fail as they drive higher and critical hospital success. Assurance and reliability per our study matter little presumably due to the patient's over-dependence on the treating physician's recommendation characterized in most developing nations like Ghana and many others. Empathy, Tangibility, Reliability and Responsiveness (but not assurance) impact patients' satisfaction and Responsiveness, Empathy and Assurance impact patient loyalty (but not Tangibility and Reliability). However, Patient's satisfaction impacts patients' loyalty to the hospital/clinics. Empathy, responsiveness and tangibility are mediated by patient's satisfaction in influencing the loyalty of the patients to the hospital/clinics. As already asserted in the foregoing lines, the most important aspects to focus on, as per this research, are (1): Timely delivery of services, (2): Caring employees, (3): The hospital's staff give patients personal attention. (4): The hospital has patients' best interests at heart, (5): Convenient consultation hours with and the medical services have fulfilled patient's expectation, (6): The hospital has up to date equipment, (7): Hospital's physical facilities are visually appealing and (8): Hospital's staff been well dressed. In other words, employees' attitude towards patients, their proper communication with patients, and accurate delivery of services are highly critical to the hospital's success. Simply stated, Attitude, Communication, Delivery (ACD Model) and Tangibles are the key to making patients return to the same hospital per our findings. This is to also say, that any efforts

beyond the basic provision of Assurance and reliability to the patient, the study findings suggest be directed elsewhere.

An important interpretation that can be made from this study is that Assurance and reliability matter little to the patient as far as satisfaction is concerned since he/she may depend heavily on the treating medical doctor in developing countries as it is in our setting; Ghana. In a way, SERVQUAL is fully relevant to this scenario since only two out of the five constructs were found to have no links with patient satisfaction in this study. It can be inferred from this that patients might assume that their referring physician is already sure about tangibility, and reliability. These conclusions are aligned with the quality dimensions of WHO framework (2006) which recommends that the healthcare systems should be patient-centered and take into account local cultures and preferences of users.

### **Conclusion, Limitation and Future Research**

Utilizing a second-generation multivariate data analysis method (PLS-SEM) for healthcare consumer research, which is an emergent path modeling approach, this study in concurrence with previous studies on the efforts in bridging the gap between patient's perceptions about quality of service delivery and patient's loyalty on access to healthcare arrangements, suggests that the quality of service rendered a patient has a potential to enhance the patients' loyalty to the visiting hospital/clinic through improving the patients' satisfaction of the service delivery via the evidence of vital quality service dimensions. While this study provides a favorable evidence for the positive role patient's satisfaction plays in mediating and driving loyalty amongst patients in private healthcare delivery through the evidence of the servqual dimensions, this study is limited from the cross-sectional study design, and further studies are recommended for evaluating its impacts overtime. Further, the dimensions employed in this study did not make use of other dimensional factors e.g. safety matters, culture, technology acceptance, religion, gender etc., which could equally drive loyalty in the conceptual model of this study, hence future research can be directed towards the exploration of these dimensions using latest hospital industry and comparative approaches with other healthcare industries rather than just the private industry.

### **Acknowledgement**

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### **Ethics Statement**

The authors affirm that this work is unique and has not been distributed somewhere else, nor is it as of now under consideration for publication elsewhere. All authors participated and contributed to the improvement of this paper. All methods performed in this study were in agreement with the moral guidelines of the morals committee of the School of Management in Jiangsu University and with the (1964) Helsinki declaration and its later amendments or comparable ethical standards.

## Conflicts of Interest

The authors affirm that they have no contending conflicts of interests.

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