

## Effect of service quality and patient satisfaction on patient loyalty: A case study of a private hospital in Ghana

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**Abstract:** *This study makes an empirical study on the relationship between service quality, patient satisfaction and patient loyalty in private hospitals. Based on the theory and measurement model about service quality, patient satisfaction and loyalty of St. Mark Hospital in Ghana, it constructs the construction model for the relationship of a private hospital, puts forward the relevant research hypothesis and develops the standard measurement questionnaire, then uses the convenient sampling method, selects 300 outpatients from the hospital to distribute the questionnaire, tests the quality of the questionnaire scale through the standard method, and finally analyzes 240 complete data. Descriptive statistics, correlation analysis and regression analysis were carried out by using the Statistical Package for Social Sciences software to estimate the relationship between variables. The overall results of this study show that there is a positive and significant relationship between all constructs. Service quality is positively related to patient satisfaction, and patient satisfaction is positively related to patient loyalty. Therefore, the improvement of human capital and the training of staff should be introduced to provide high-quality services and improve patient satisfaction, so as to promote the re-visit and recommendation of patients.*

**Key Words:** *service quality; patient satisfaction; patient loyalty; Ghana.*

### 1. INTRODUCTION:

Public hospital funds are largely provided by the government and are subject to government instructions and guidelines while private hospitals provide more personalized care and treatment for their patients (Rahman et al., 2018). Private hospitals for sustainability and profitability reinvest funds to retain the patient population and provide them with the highest quality of service. Numerous comparative studies have opined difference in the healthcare services offered by private and public providers (Aftab & Razzaq, 2016). The outcomes show that patients tend to prefer private health facilities rather than public health facilities for multiple reasons such as improved technology, no or less waiting lists and delays in treatment, a hygienic atmosphere, more personalized medical and nursing care (Shabbir et al., 2016). In schemes where public funding does not support private hospitals, they focus on the quality of service to raise income, so that patients pursue private care only because of the perception of better facilities and performance (Ampofo & Opoku-Danso, 2017). To achieve a competitive advantage, service providers need better mechanisms to collect data relating to market demands and distribute it among departments to improve service quality. Researchers and administrators mostly use the information gathered to enhance satisfaction, efficiency, sustainability, and profitability (Ahmed et al., 2017). Patients are now aware of the service delivery of other service providers as well as the range of health care services available to them (Kitapci et al., 2014). Every aspect of service delivery and the attitudes of the healthcare personnel influence decisions of existing and potential patients. They hold in high esteem additional attention given to their desires and appreciate the efforts to fulfill special demands (Ng & Luk, 2019). It is expedient for organizations to have essential information regarding their clients because better knowledge of their needs would result in better satisfaction of their needs. The perception of patients on the services they receive can lead to the organizations' success or failure since they are the reason for the organizations' existence (Mammadov & Gasanov, 2017). Notwithstanding the quality of service provided by the private healthcare industry to patients, there is a growing impetus of patients moving from one hospital to another to access health care. It is in light of this that the researcher decided to undertake this study to assess the interrelationship between service quality, patient satisfaction, and patient loyalty from patient's perspectives in the St. Jude Hospital, a private hospital in the Dunkwa Municipality of the Central Region of Ghana.

### 2. LITERATURE REVIEW:

Juhana et al. (2015) aimed to study the impact of quality services and brand image on patient satisfaction and patient loyalty in a public hospital in Bandung, the results support previous studies that confirmed the positive relationship among quality of service, brand image, patient satisfaction and loyalty. Their research is that hospital managers need to improve service quality and brand image to increase patient satisfaction and thereby gain patient loyalty. Therefore,

patient satisfaction can affect patient loyalty. Also, Jamaluddin and Ruswanti (2017) were with uninsured outpatients at a private hospital in Tangerang, Indonesia. Their findings show that, first of all, apart from guarantees, all aspects of service quality have no direct impact on patient satisfaction. It shows that respondents did not separate all dimensions into a single segment, with one dimension taking precedence over the others. Second, their research also found that service quality has an impact on improving patient satisfaction; third, service quality has a direct impact on patient loyalty without mediating patient satisfaction. Therefore, it can be concluded that the contrary, Meesala, and Paul (2018) pointed out that service quality cannot accurately use SERVQUAL models to predict patient satisfaction and loyalty to private hospitals. However, these studies have prompted hospital management to shift their attention to the quality of the private health care system and improve the lack of health care. Also, the study demonstrated patient behavior. Satisfaction and loyalty to the quality of medical services. Woldeyohanes et al. (2015) affirmed that patient satisfaction is an attitude that arises from a person's overall orientation towards the overall health care experience. It is a key determinant and legal measure of the quality of care. In developing countries, satisfaction studies focus on nursing and outpatient services. This study aims to measure and describe the satisfaction of hospitalized patients with the health care services provided. It was found that nearly two-thirds of patients were satisfied with the services they received from the hospital. Most patients found dissatisfaction with care, pharmacy, and laboratory services, while others remain dissatisfied with the level of health education, communication, and information they receive about their condition.

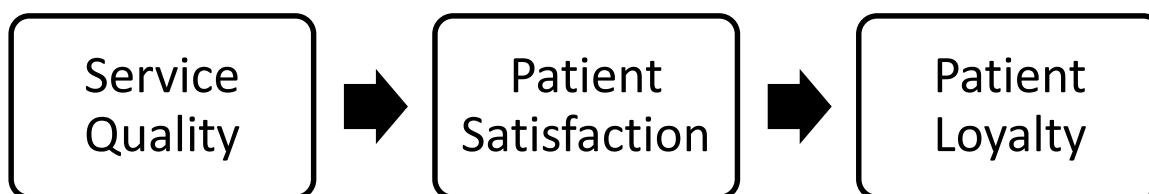
Kasiri et al. (2017) analyzed the direct and indirect effects of standardization and personalization on patient satisfaction and loyalty through service quality. 2) Compared with personalization, standardization has a greater impact on service quality; (3) Compared with technical quality, functional quality has a greater impact on patient satisfaction; (4) patient satisfaction has a significant impact on patient loyalty. This research is developing an integrated framework to analyze the role of standardization and personalization in service quality. Li et al. (2015) surveyed patient perceptions of service quality in nine cities in China. The SERVQUAL scale method was used to survey outpatients and hospitalized patients in Shanghai, Chongqing, Chengdu, Nanning, Guilin, and Guangxi, Honghe Prefecture, Yunnan, Urumqi, Xinjiang, and Zhongshan, Guangdong. On all five dimensions of the scale, patients in Laibin, Guangxi felt the most positive about service quality, followed by patients in Shanghai. On the other hand, patients in Chongqing, Nanning, Guangxi, and Guilin had a relatively poor perception of service quality. Chinese patients found the quality of service satisfactory. Hospitals in all regions of China must raise awareness and provide services to patients. Service quality is a means, patient satisfaction is a result but loyalty is an end. Service and satisfaction are interchangeable however loyalty is tangible, the importance of consumers within the business method has created it very important to forever conduct analysis concerning patients. There has forever been the necessity for client analysis before, throughout, and on sales, because of changes that may occur in the business process. An author who stated that “an organization that systematically satisfies its clients enjoys higher retention levels and larger gain because of increased patient loyalty” has verified it (Wicks & Roethlein, 2009). For this cause, each company works tirelessly daily to win the consumers by pleasing them so that they become loyal patients to their brands to increase sales and profit. When patients have sensible views a few products, they're going to forever value more highly to select the products, because consumers form their preferences relative to perceptions and attitudes about the brands competing in their minds (Gohain, Thambiah, & Hong, 2018). To get these loyal patients, firms should produce relationships with the purchasers. To create a relationship with patients, firms have to analyze to answer queries on how the purchasers create loyalty and whether or not they are pleased with what the organization provides to them as provided in terms of product quality, service quality, price, etc. Thus, patients can endlessly like a product or service that provides them the greatest fulfillment. Nevertheless, how will the organization know whether the consumers' consumption habits have improved, or if they are well served? How can the institute grasp if competitors' brands do better than their area unit, which might entice their patients? With the increasing range of companies and growing competition nowadays, every company desires to be the patients' 1st alternative (Nyadzayo & Khajehzadeh, 2016). To achieve this, organizations need to answer the queries above through constant investigation in this area to lead the organizations to their twin objective of satisfying their patients and making profits. Because client satisfaction is a key concern of organizations today, researchers are always conducting research about the clients especially on issues related to their satisfaction. Moreover, because satisfaction varies and changes among people, there is a need for continuous research in this area.

Although there are unit alternative factors like worth, product quality, etc. other than service quality that confirms client satisfaction (Wilson et al. 2008, p. 78-79) my interest on service quality alone for this study is because service quality has been proven to be the best determinant of patient satisfaction hence loyalty. Besides, providing quality services is one of the main targets when it comes to management concerning patient satisfaction in the business environment of today.

From the above-mentioned model, the following main hypotheses are developed:

H1: Service quality has a positive and significant relationship with patient satisfaction.

H2: Patient satisfaction has a positive and significant relationship with patient loyalty.



**Figure 1:** presents the conceptual structure of the study

Source: The researcher’s own Construction.

**3. MATERIALS AND METHOD:**

A quantitative survey was used to test the research model. Survey questionnaires were pretested using a small number of respondents to ensure high internal consistency of the measures. Consequently, minor changes were made and the questionnaire was administered to patients who had visited the private hospital. The research model consisted of seven basic constructs. Respondents indicated the extent of their agreement or disagreement with the measures on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale was adapted mainly from Parasuraman et al. (1988). A total of 300 patients of various private hospitals in Ghana were surveyed based on convenience sampling techniques. Out of the total completed 240 were usable. Data collection spanned the period between October 20 and December 5, 2019. The analysis of data was performed using the SPSS package. This involved a descriptive analysis. Data were cleaned before analysis to ensure that they were correctly captured from source documents. Regression analysis was used to assess the influence of the quality of services on patient satisfaction and patient satisfaction on patient loyalty. P-value was considered significant at level 0.05. Data analysis involved correlation and regression analysis. Pearson correlation analysis was conducted to determine the direction, strength, and significance of the bivariate relationships between service quality, patient satisfaction, and patient loyalty. The questionnaire contained two sections, namely A and B. Section A had questions on demographics (age, gender, education, and occupation) while section B included questions on patient satisfaction with the service quality and loyalty of the patient to St. Mark Hospital. These included (rating of service quality (tangibility, responsiveness, empathy, reliability, and assurance), patient care service (promptness, attitude, and competence). This research used the closed questions; thus the author provided the answers and allowed the recipients to answer.

**4. RESULTS:**

Only 240 were correct and used in the questionnaires. The presentation of the outcome started with respondents' social profiles. Age, gender, educational level, and employment status were the factors included in this section. 52.9% were female while 47.1% were male. Nonetheless, 34.2% of respondents' ages ranged from 18 to 29 while 45% of respondents' ages ranged from 30 to 44. Furthermore, 15.4 % of respondents' ages ranged from 45 to 59 while 5.4 percent were 60 years and above. Also, the majority of the respondents 42.9 percent and 36.3 percent had Bachelor's degrees and basic certificates as their highest level of education respectively. Respondents with master's degrees and above accounted for 16.7 percent while the rest had less than basic certificates. Besides, 14.6% were students, 43.1% were wage employed, 33.3% were self-employed and 9.1% were unemployed. Most of the respondents, 42.9 percent were salary workers. 32.5 percent were self-employed, followed by students who formed 14.6 percent of the respondents, and least of all was the unemployed who formed only 10 percent of total respondents used for the analysis.

**4.1. Factor Analysis and Reliability:**Results of KMO and Bartlett’s test revealed that variables were highly significant. Cronbach’s alpha was used to measure the internal consistency of each identified construct. The reliability of each construct was acceptable while Cronbach’s alpha exceeded 0.7. All measures used in the main study achieved adequate levels of reliability. Generally, all scales achieved satisfactory levels of reliability (Al-shammari et al., 2013). From the data analysis, Cronbach’s Alpha was .855 for the nine (9) items, and so the subsequent analyses were conducted with the data.

**Table 1:** Validity Statistics of the Data.

KMO and Bartlett's Test		
<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		.819
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	1091.655
	Df	36
	Sig.	.000

Pearson's Correlation

**Table 2:** Pairwise correlation of service quality, patient satisfaction, and loyalty

VARIABLES	SERVICE QUALITY	PATIENT SATISFACTION	LOYALTY
SERVICE QUALITY	1		
PATIENT SATISFACTION	.452**	1	
PATIENT LOYALTY	.666**	.597**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

The results of this study above show the highest correlation was observed between service quality and patient satisfaction (0.452) followed by the correlation between patient loyalty and patient satisfaction (0.597). This implies that the level of patient satisfaction increases with the level of the improvement of the quality of the services. Also, patient satisfaction is a determinant factor of the loyalty of the patients to the organization. This is in support of previous literature that patient satisfaction is a mediating element of quality services to patient loyalty. The correlation between loyalty and quality services (0.666) is the lowest among all (Table 2). Though pair-wise correlations provide preliminary evidence that the relationship between variables is weak, the multivariate linear regression analysis was used to determine the effect of service quality on the level of patient satisfaction (service quality → patient satisfaction) and patient satisfaction on patient loyalty (patient satisfaction → patient loyalty).

**4.2. Regression Analysis:**

**Service Quality and Patient satisfaction**

The effect of service quality on patient satisfaction was assessed. The results are presented in Table 3.

**Table 3:** Effect of Service Quality on Patient satisfaction

MODEL		UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T VALUE	SIG.
		B	STD. ERROR	BETA		
1	(CONSTANT)	1.937	.182		10.634	.000
	SERVICE QUALITY	.427	.055	.452	7.822	.000
<b>A. DEPENDENT VARIABLE: PATIENT SATISFACTION</b>						

From Table 3, it was found that the regression results of patient satisfaction on Service Quality are presented. The findings show that the coefficient of service quality was significant at 0.01 levels, suggesting that service quality has a significant effect on the level of patient satisfaction. The study confirms with the literature whereby improvements in service quality may be beneficial to the St. Mark Hospital as it helped to promote patient satisfaction. In univariate linear regression analysis, it was noted that unit increase in the scores of service quality increases the levels of patient satisfaction by 43% (Table 3) and the effect of the service quality on the model is significant (p<0.001). The overall model is presented by the equation below:

Patient satisfaction = 1.937 + 0.427 x service quality .....1

**4.4. Patient satisfaction and patient loyalty:**

To determine the effect of patient satisfaction on patient loyalty was assessed. The results are presented in Table 4.

**Table 4:** Regression analysis of Loyalty on patient satisfaction

MODEL		UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T VALUE	SIG.
		B	STD. ERROR	BETA		
1	(CONSTANT)	.961	.199		4.823	.000
	PATIENT SATISFACTION	.668	.058	.597	11.481	.000
<b>A. DEPENDENT VARIABLE: PATIENT LOYALTY</b>						

The results from Table 4 are based on the investigation of the effect of patient satisfaction on patient loyalty; the findings showed that unit increase in the scores of the level of patient satisfaction increased the scores of patient loyalty by 67%. In hypothesis testing of the relationship between patient loyalty and patient satisfaction, it was founded that patient satisfaction was significantly influencing the level of patient loyalty (p<0.001)

The model was presented by the equation below:

Loyalty= 0.961 + 0.668 x patient satisfaction.....2

## 5. DISCUSSION:

The assessment of the impact of service quality on patient satisfaction. The evidence is overwhelming considering its predictive relevance that the results of the regression analysis would indicate service quality exerts a positively strong ( $\beta=0.427$ ;  $t = 7.822$ ;  $p < 0.001$ ) effect on patient satisfaction. The test results support the hypothesis (H1) that service quality has a significant influence on patient satisfaction; this can be interpreted as a unit rise in service quality scores that raises patient satisfaction rates by 42.7% (Table 3). This simply reveals that aside from all other elements that influence patient satisfaction their perception of the quality of service delivered to them is the most important compared to all the other put together. Therefore, the hospitals have to place a keen interest in providing excellent services to the patients that they may be satisfied with the hospitals. As healthcare has become an increasingly keen commodity in the marketplace, studying the patient experience could certainly help professionals better understand the patient's perspectives on service delivery and improve patient satisfaction. Ultimately, this observation is confirmed by enormous previous research findings in different countries both in the private and public health sectors (Boadi et al., 2019). The most dominant results reveal that service quality perception is the greatest determinant of patients satisfaction (Afthanorhan et al. 2019; Anabila 2019; Anabila, Kumi, and Anome 2019; Asnawi et al. 2019; Fatima, Malik, and Shabbir 2018; Gohain, Thambiah, and Hong 2018; Meesala and Paul 2018; Rahman et al. 2018; van Riel et al. 2017). Though this study is limited to the healthcare industry, the results are also the same in other service sectors like the airline industry, education sector, banking industry, hospitality industry, and several others. Moreover, considering the results of the regression analysis patient satisfaction exerts a positive (0.668) and statistically significant ( $t= 11.481$ ;  $p < 0.000$ ) effect on patient loyalty. The test results support the hypothesis (H2) that patient satisfaction influences patient loyalty intention. This means that satisfying the patients tends to make the patients more loyal to the hospital. From the results, enhancing patient satisfaction scores by a unit raises the loyalty intention rates by 66.8 percent. In the same vein, Kim et al. (2017) indicated that higher patient satisfaction leads to a higher retention intention. Fatima (2018) confirmed that better satisfaction builds better loyalty among patients. Because of these, private hospitals are regularly assessing the factors that make patients satisfied with service provision.

## 6. CONCLUSION:

This study investigates the role of service quality and its effect on patient satisfaction and patient loyalty to determine their underlying relationships and implications on a private healthcare marketing strategy to bolster competitive advantage and firm survival in Ghana's emerging private healthcare industry. Patient satisfaction and loyalty were identified as correlates of successful marketing performance in line with extant literature. The study confirmed H1 and H2. The results showed a positive and significant relationship between service quality and patient satisfaction in line with previous studies (Gorondutse & Hilman, 2014; Kitapci et al., 2014; Tamwatin et al., 2016). Finally, the study found that patient satisfaction significantly influenced patient loyalty. The significance of the relationships between service quality dimensions was also considered to highlight the nature and degree of an emphasis required by private healthcare practitioners in their service quality practices to achieve service differentiation and increased competitive leverage since these functional dimensions of care are pretty difficult to copy. The significance is that policymakers of private healthcare and providers seeking to increase patient satisfaction and patient loyalty should focus on improving patients' perceived drivers identified in SERVQUAL scale (reliability, responsiveness, assurance, empathy, tangibles) to increase their chances of success in line with (Anabila et al., 2019; Fatima et al., 2018). This implies that if private healthcare providers deliver patient-friendly healthcare through thorough and interactive consultations with appropriate diagnoses and treatment in a good time coupled with urgency in responding to emergencies/patients' requests, with a manifest demonstration of competence and genuine commitment which indicate that they have patients' wellbeing at heart, it would prove worthwhile. Finally, if the physical environment is visually appealing and medical equipment is up-to-date, the cumulative effect will be positive reciprocal outcomes of patient satisfaction and patient loyalty (Jamaluddin & Ruswanti, 2017; Lien et al., 2017; Mukerjee, 2018). Patient satisfaction and patient loyalty have long been touted as key drivers of firm profitability and long-run competitive advantage (Gohain et al., 2018; Priporas et al., 2017).

Additionally, by mainstreaming patients' satisfaction surveys using this modified SERVQUAL scale to gauge patients' perspective periodically, private healthcare providers stand to gain through enduring service excellence in patient satisfaction and patient loyalty since patients are the prime custodians of their wellbeing hence their participation marks a significant landmark towards a holistic healthcare paradigm away from the paternalistic (doctor-driven) approach. Such a feedback system has the potential to help shape policy initiatives to improve healthcare decisions and outcomes. This aligns with Kohn, Corrigan, and Donaldson (2001) cited (Osei-Frimpong, 2017) who posit that a good indicator of healthcare quality is that it must be patient-oriented. Finally, the study is a major contribution to knowledge in the private healthcare sector in Ghana, since there is a knowledge gap in empirical research linking service quality to patient satisfaction and patient loyalty as hallmarks of sustainable competitive advantage in the private healthcare sector since researchers have largely focused on the predominant public healthcare sector. The study has several limitations worth noting. The study used convenience sampling, which limits the representativeness of findings. Future studies may

consider a form of random sampling. Finally, only outpatients were covered. Patients on admission and critical care patients were not covered. Future studies may consider broadening the scope to provide a more comprehensive outlook.

#### Appendix A.

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#### Conflicts of Interest

The authors declare that they have no competing interests.

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