

# **Examine the Extrinsic Mechanism of Service Quality Factors and it Effect** on Patient Retention in Ghanaian Private Hospitals, Using Trust and Patient Satisfaction as Mediator

Jonathan Banahene<sup>1\*</sup>, Baozhen Dai<sup>2</sup>, Jonathan Kissi<sup>1,2</sup>, Maxwell Opuni Antwi<sup>3</sup>

<sup>1</sup>Jiangsu University, School of Management, Department of Health Policy and Management 301 Xuefu Road, Zhenjiang, 212013, P.R. China

<sup>2</sup>University of Cape Coast, School of Health and Allied Sciences, Department of Health Information Management, Cape Coast - Ghana.

<sup>3</sup>Jiangsu University, School of Management, Department of Public Health Policy and Medical Insurance. Corresponding Author: Jonathan Banahene

## ABSTRACT

#### Article Info

For any private hospital to retain most of their patients they should be able to Volume 8, Issue 1 provide their patients with quality service quality that will convince their patients that the hospital is not just about only the shareholders benefit only. The main aim Page Number: 255-270 of this research paper is to examine the impact of extrinsic mechanism of service quality by choosing one of the constructs of the original HEALTHQUAL model (tangible) and add two additional constructs that are corporate social responsibility and collaborative network will have on patient retention in private hospitals in Ghana. The study will also assess the mediating role of trust and patient satisfaction between the extrinsic mechanism of service quality factors and patient retention. **Publication Issue :** The sample size of the study was 880 patients. Data collection was done among January-February-2021 inpatient and outpatients of four selected private hospitals Kumasi in the Ashanti region of Ghana. The questionnaires used for the study were made up of 26 items that include 13 items on extrinsic mechanism, three items were service quality, two items on trust and 4 items of patient satisfaction were use as mediators of service quality factors and patient retention, lastly, 4 items on Patient retention. The validity and reliability of the data was confirmed. WarpPLS software was use to analysis the data. The study revealed that there is a positive relation between the three of the extrinsic mechanism and service quality. The study also shows that there is significant association between service quality and patient retention. The Article History Accepted : 01 Jan 2021 mediation role of Trust and patient satisfaction also showed positive and statistically Published : 28 Jan 2021 significant between the factors of service quality and patient retention. This study recommends that if private hospitals involve themselves in corporate social responsibilities and collaborative network activities they will win more patients to

Copyright: © the author(s), publisher and licensee Technoscience Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited

their hospital and even retain them. This study also suggest that in order to retain most of your patients at your private hospital, the hospital should be equipped with modernizes medical equipment and also the environment of the hospital should be very attractive. This paper further stress that trust and patient satisfaction should be the benchmark of every private hospitals to retain their patients.

**Keywords :** Tangible, Corporate Social Responsibility, Collaboration Networking, Trust, Patient Satisfaction and Retention

#### I. INTRODUCTION

The objective of this study is to highlight the extrinsic factors that influence patient retention in the context of private hospitals service quality. In this paper the researcher choose one of the constructs of the original HEALTHQUAL model (tangible) as well as the extension this study seeks to bring to the model. These are the corporate social responsibility and collaborative network constructs that have been tested individually in other service industries and individually in other healthcare settings but which has not been integrated into the generally accepted HEALTHQUAL model. Previous studies affirm that the tangible aspect of the health service delivery has grown to become an important consideration in the choice that patients make on whether they should stay with a particular hospital or not (Hepple et al., 1990)

elements The tangible as explained in the HEALTHQUAL model includes the appearance of the facilities at the hospital, the sanitation and environmental cleanliness, the appearance of hospital equipment's and service gadgets, hospital packaging practices, cleanliness of ambulances, appearance of nurses and workers, as well as the physical appeal of the entire environment including sound, lightening and car park areas at the hospital ambience. All of these have the potential to improve the service atmosphere, elicit patients' trust and support facilitate their cooperation to deliver effective of healthcare. According to (Kot & Syaharuddin, 2020) a very clean, well-structured and well-arranged hospital set up improves speed of movement and turnaround among staff and patients whiles guaranteeing safety of the patients and their families (Panchapakesan et al., 2015) Moreover, since patients come to the hospital with different types of sickness and diseases, having a clean hospital environment reduce their risk of exposure to other contagious diseases and other risks associated with hospital visitation. This is because patients demand private hospitals they can trust and these factors stimulate trust can satisfaction (Chahal & Kumari, 2010). In recent studies, a key aspect of the tangible attributes of service quality is technology adoption. Patients expect hospitals to buy, install and use a wide range of technological platforms to deliver their services to patients. Beside the demand for hospitals to use modern equipment and technology, contemporary patients expect hospitals to continuously look for new technologies that enable them to freely get involved and participate in the health delivery processes(Öberg et al., 2018) For example, customers expect organizations to adopt and self-service technologies, mobile health use applications and telemedicine techniques that enables the doctors and patients to interact on the regular basis even from remote locations.

Beside tangibility, (Carroll et al., 2007) has observed that patients have becomes conscious of the community participation effort of private hospitals hence are largely loyal to those who profess high corporate social responsibility standards. For example patients favour private hospitals that uphold highly cherished and time tested traditions and social mores and abhor those promote culturally contested practices such as anti-abortion stands that are ingrained in many African traditional societies. Moreover, patients are in love with hospital that give back to the community they operate through free medical screening and subsidies for the vulnerable patients such as children, elderly people, disabled or any other group that is disadvantaged. The importance of this construct to patient retention and social legitimacy is the reason why some private hospitals are adapting specialized institutions such as the prisons, elderly homes, orphanages to provide them with continuous care at subsidized costs (Blau, 1969) With an ever increasing phase of the global healthcare, hospitals today have become innovative enterprises where collaboration rather than competition is the order of the day (Torfing, 2019). With shortage of medical personnel across different spectrum of the society it has become necessary for hospitals to bring in expertise by sharing resources such as personnel and data to support overall public health delivery and augment family care (DiBenigno & Kellogg, 2014).

For example doctors and hospitals across the global are developing question and data banks where large hospitals and experienced doctors share innovative ideas with those that have limited experiences in specific situations (Quill & Brody, 1996). Moreover, hospital that are able to bring specialist from other parts of the world and transfer them across other regions are look up to as well resourced and very responsible hospital hence the need to give them loyalty. For example, the eye clinics, ear, nose and throat clinics, urology clinics laboratory medicine and other areas with very specialized services that are not easily available to all hospitals must collaborate in order to provide a one stop shop service services to patients who need them as much as possible (Aarts et al., 2007)

In many different empirical contexts, the significance of relationship between tangibility and trust on one hand and tangibility and patient satisfaction is evident as in the case of (Panigrahi et al., 2018)(Al-Mhasnah et al., 2018). Similarly the work of (Hossain, M.S., Yahya, S.B. and Khan, 2019) further attests to the fact that corporate social responsibility is a major factor in the determination of the patients' retention. Similarly (Saunders et al., 2012) also asserts that collaborative networks is responsible loyalty to private clinics in Ghana hence the need for further exploration of these factors. Thus it is postulated that;

#### Conceptual Framework of the Study



Figure1: Framework of Extrinsic Mechanism

### Hypotheses

- Ha. The tangible attributes of health service delivery is positively associated with high service quality levels among private hospitals in Ghana
- Hb. Hospitals' involvement in corporate social responsibility more likely to improve their service quality levels.
- Hc. Hospitals' involvement in collaborative networks is more likely to improve their service quality levels

- 4. Hd. Hospitals that offer high quality services to their patients are more likely to improve patient retention
- 5. He. The relationship between the delivery of high quality service by hospitals and patient retention is mediated by the patient's trust
- 6. Hf. The relationship between the delivery of high quality service by hospitals and patient retention is mediated by the patient's satisfaction.

### **II. METHODS AND MATERIAL**

In this study, the factors used to measure tangibility construct was the same as the factors that are used in the HEALTHQUAL model as presented in (Lee, 2017). It consists of the measurement of the hospital's ability to secure advanced medical equipment and ability to secure highly talented medical staff. It also includes the degree of securing convenient facilities, the degree of staff cleanliness and the overall cleanliness of the hospital and its facilities such as ambulance. But the only different from (lee 2017) work is the two more extrinsic constructs have been added to this model. This includes;

The constructs of corporate social responsibility on the other hand was based on the factors identified in (Chen & Hsiao, 2020). This approach seeks to evaluate four important dimensions namely accountability which is the openness and answerability to community actions and inactions of the hospital and its agents, responsibility which denotes the extent to which the hospital is willing to take responsibility for its actions and those of their agents as well as the degree to which hospitals take responsible actions to support the development of their communities (Yang et al., 2019). The next factor is transparency which is the persistence of the good corporate governance practice code the promote transparency of their operations as well as competitiveness which entails the reputation for commitment and trust among members of the community (Kohler & Dimancesco, 2020). The researcher consulted several sources in order to measure the level of collaborative networks.

The scale used is adopted from University of Kansas that hybridizes and shortens the community linkage provided by (Gajda, 2004) and discussed by (Borden & Perkins, 1999). It was however adapted to suit the objectives of this study more appropriately. These constructs include degree of networking (little interaction with others), cooperation (exchange of information with others), coordination (share information and resource with others) coalition (share ideas and resources more frequently with established periods of meeting) and collaboration (integrated system with partners) (Gulati, 2002). On the other hand trust was made up of two factors whereas service quality was made up of three factors (Clara Martínez Fuentes, 1999). Further patient satisfaction was composed of four factors whereas patient retention was also composed of four factors.

These factors along with the earlier stated factors in the empathy, safety, improvements and efficiency which from the other half of the HEALTHQUAL model were composed into questions with five point Likert scale response structure for the respondents to answer. Again it is necessary to point out the fact that the entire questionnaire was made up of closed-ended questions for a number of reasons. Firstly the targeted audience did not have the time to fill them hence the questionnaire was self-administered by a research assistant. Further, closed ended questionnaire was used because of the need to reduce mistakes by the respondents (Blair & Burton, 1987). Another important advantage of using closed ended questionnaire is that the questions have been precoded hence it is easier to transfer the, into statistical software and code them for more advanced analysis.

Before administering the questionnaire, it was pretested to fine-tune the wordings to improve the validity and reliability of the information to be collected from it. Ultimately, the data collection was conducted among the designated private hospitals across the 16 regions in Ghana before the expiration of the study data collection period. Most of the respondents hailed from the Greater Accra, Ashanti, Western, Central and Eastern Regions from Ghana due to the density of private hospitals in these regions relative to the other regions. Patients were randomly asked to participate in this study and were not required to fill the questionnaires that were selfadministered to them. Research assistances were employed to provide assistance and guidance to patients who accepted to take part in the study. The average data collection lasted within 10 minutes as the responses to the questionnaire were coded as closed ended questionnaire to reduce errors. In all a total of 880 responses were collated between January 2019 and September 2019. The data was analysed using the SPSS statistical software as well as the WarpPLS software. With this software, a robust statistical test procedure was adopted to ensure that the data met all the required data integrity benchmarks recommended in the extant literature.

#### **III. RESULTS AND DISCUSSION**

In table1, the descriptive statistics of the main constructs of the study have been presented. The first construct is the tangibles that denote the physical environment within which an organisation operates. The responses ranged from a minimum of 4.65 to a maximum response value of 5. The mean response value recorded for this construct was 4.250 with a standard deviation of 0.368. The value of the skewness is -0.061 that means that construct is not normally distributed. The second construct is the corporate social responsibility that denote the willingness of hospitals to support communities in meeting some of its critical needs at no or subsidized cost.

The responses ranged from a minimum of 4.45 to a maximum response value of 5. The mean response value recorded for this construct was 4.100 with a standard deviation of 0.527. The value of the skewness is -0.543 which means that construct is does not meet the Gaussian distribution threshold. With regards to the collaborative network construct, it refers to the ability of the hospital to develop strategic partnership for healthcare of its patients. The responses ranged from a minimum of 3.30 to a maximum response value of 5. The mean response value recorded for this construct was 4.428 with a standard deviation of 0.961. The value of the skewness is -0.543 that means that construct is not normally distributed.

The next construct is the service quality constructs. In this case the response ranges from a minimum of 3.00 to a maximum of 5.00 with a mean response value of 4.105. The standard deviation is .772 and the data is negatively skewed. When it comes to trust, the results show that the response ranges from a minimum of 3.29 to a maximum of 5.00 with a mean response value of 4.119. The standard deviation is .506 and the data is positively skewed. Regarding the descriptive overview of patient satisfaction, the results show that the response ranges from a minimum of 3.43 to a maximum of 4.71 with a mean response value of 4.558. The standard deviation is .472 and the data is negatively skewed. Overall it can be said that the data responses are relatively high but that alone is not enough to draw all the conclusions needed in this research. Since the results of the descriptive statistic are largely not normally distributed, addition test will employ a nonparametric test procedure to explore the research questions.

# **Test of Sampling Adequacy**

### Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		
Bartlett's Test of Sphericity	Approx. Chi-Square	2148.329
	df	286
	Sig.	.000

Table 2, also tested the adequacy of the sample for analysis. As earlier noted the need for data to meet the adequacy criteria is essential in order to ensure that the outcome is based on representative sample and not arbitrary selected sample of study. Even though quantitative adequacy does not imply qualitative adequacy, the latter is used predominantly in statistical research studies such as this. Kaiser-Meyer-Olkin (KMO) and the Bartlett's Test of Sphericity test results presented in the table provide an overview of the appropriateness of the data. Firstly, the data shows a KMO value of .894. If this is compared with the benchmark provided by (Kaiser, 1974) then the KMO value in excess of 0.8 is highly accepted at worst and excellent at best. Again, the table shows a Bartlett's Test of Sphericity value of 0.000 that confirms identity matrix formation of the correlation matrix.

#### **Exploratory Factor Analysis**

The next section analysis that was done by the researcher was to conduct the exploratory factor analysis (EFA). The EFA as a statistical method is needed because each of the in latent constructs does not have very clear indicators but is instead made up of indicator variables that must be grouped to form one construct. The EFA helps to identify the relationship among the manifest variables in building the construct and to determine their level of cohesion. As a rule of thumb, each variable must meet a threshold of 0.6 or more. Table 1, presents the factor loadings of all the items used in composing the specific constructs.

VARIABLE	α	CR	AVE	FACTOR LOADING
Tangible	0.727	0.790	0.830	
TAN1				0.773
TAN2				0.831
TAN3				0.765
TAN4				0.830
TAN5				0.858
CRS	0.886	0.913	0.705	
CRS1				0.710
CRS 2				0.801
CRS 3				0.892
CRS 4				0.797
CLN	0.863	0.830	0.676	
CLN1				0.792
CLN 2				0.774
CLN 3				0.872
CLN 4				0.737
Trust	0.733	0.767	0.755	
TRU1				0.792
TRU2				0.829

Table 2 :	Exploratory	y Factor	Analysis
-----------	-------------	----------	----------

Service Quality	0.728	0.761	0.870	
SEQ1				0.689
SEQ2				0.803
SEQ3				0.794
Patient Satisfaction	0.791	0.778	0.876	
PAS1				0.775
PAS2				0.806
PAS3				0.830
PAS4				0.782
Patient Retention	0.776	0.678	0.690	0.765
PAR1				0.710
PAR2				0.769
PAR3				0.677
PAR4				0.820

# Test of Internal Consistency

			Corrected Item-	Squared	Cronbach's
	Scale Mean if	Scale Variance	Total	Multiple	Alpha if Item
	Item Deleted	if Item Deleted	Correlation	Correlation	Deleted
Tangible	25.7526	4.826	.766	.680	.798
CRS	25.5668	4.243	.870	.890	.770
Collaboration	25.4543	4.952	.451	.386	.836
Service Quality	25.8120	3.868	.633	.808	.820
Trust	25.8440	5.047	.419	.425	.840
Patient Satisfaction	25.7682	4.844	.739	.786	.801
Patient Retention	25.4141	5.006	.461	.395	.834

# Table 3 : Item-Total Statistics

Table 3, presents the measures of internal consistency of the composite values of each of the constructs based on the Cronbach's Alpha correlation coefficient test. As a rule of thumb each of the construct most obtained at least a threshold value of 0.0. The results presented show that each of the factors or constructs is more than 0.70. It means that the items in each factor are internally consistent and advanced analysis can be conducted.

# Test of Multicollinearity

	Tangibl e	CRS	Collaboratio n	Service Quality	Trust	Patient Satisfaction	Patient Retention
Tangible	1.000	.678	.560	.505	.393	.709	.527
CRS	.678	1.000	.457	.851	.398	.727	.480
Collaboration	.560	.457	1.000	.308	.271	.449	.110
Service Quality	.505	.851	.308	1.000	.220	.428	.477
Trust	.393	.398	.271	.220	1.000	.639	.147
Patient Satisfaction	.709	.727	.449	.428	.639	1.000	.350
Patient Retention	.527	.480	.110	.477	.147	.350	1.000

Table 4: Inter-Item Correlation Matrix

Table 4, presents the inter-item correlation matrix that is used to test multicollinearity. According to (Mchugh, 2013) the independent variables must not have high correlation with each other in order to reflect their independence. Thus using a spearman rank correlation coefficient test, the r-values obtained are below 0.5 that is an indication of lower correlation among the items as suggested by (Pallant & Tennant, 2007)

### Confirmatory Factor Analysis (CFA)

The second factor analysis was the confirmatory factor analysis that sought to explore the extent to which the model fits the data. As all the variables met the inclusion criteria, none of them was removed from the final model. There was ( $\chi$ 2=1138.516, df=407,  $\chi$ 2/df=2.797, TLI=.957, CFI=.986, GFI=.961, IFI=.977, RMSEA=.048 and table 5: shows sufficient goodness of fit of the final model

Table 5 : Goodness of Fit Indexes					
Measure	Estimate	Threshold	Interpretation		
CMIN	534.12				
DF	417				
CMIN/DF	1.952	Between 1 and 3	Excellent		
CFI	0.936	>0.95	Excellent		
SRMR	0.041	<0.08	Excellent		
RMSEA	0.029	<0.06	Excellent		
PClose	0.386	>0.05	Excellent		

		Cut off Criteria*	
Measure	Unacceptable	Acceptable	Excellent
CMIN/DF	> 5	> 3	> 1
CFI	<0.90	<0.95	>0.95
SRMR	>0.10	>0.08	<0.08
RMSEA	>0.08	>0.06	<0.06
PClose	<0.01	< 0.05	>0.05

The model shows that adequacy of each of the established benchmarks. In addition the study conducted model fitness that leads to significant outcome. For example it was noted that the composite reliability values that are alternative measures of internal consistency were much higher than the Cronbach's alpha that an indication of good internal consistency is. More, the convergent validity test results were also admissible because all the factor loadings were in excess of the 0.6 thresholds. The AVE for all the factors were in excess of 0.5 and this admissible based on the work of (Mohammed et al., 2016). This model uses the square roots of average variances extracted (AVEs)

# Path diagram of structural model

Finally figure 2: presents the final path analysis of the structural model and their corresponding coefficient based on the WarpPLS model. The summary of the information have been extracted into table 7 and explained in detailed in subsequent sections of the study.



Table 6 : Hypothesis testing results

Parameter			Estimate	Lower	Upper	Р
SEQ	<	TAN	0.520	0.552	0.639	.000
SEQ	<	CSR	0.372	0.690	0.937	.000
SEQ	<	CLN	0.839	0.308	0.596	.001
PAR	<	SEQ	0.193	-0.052	0.075	.009
PAR <	TRU <	SEQ	0.014	-0.089	0.048	.030
PAR <	PAS <	SEQ	0.509	0.177	0.746	.014
PAR PAR < PAR <	< TRU < PAS <	SEQ SEQ SEQ	0.193 0.014 0.509	-0.052 -0.089 0.177	0.075 0.048 0.746	.009 .009 .030

#### Path Coefficient Analysis

The information in table 7 shows the path coefficient and the significant level of the relationships that were tested in the analysis. Firstly, it was postulated that a positive and statistically significant association exist between tangibility and service quality of private hospitals in Ghana. Hypothesis 2a that relates to this assertion is supported by the path coefficient value of 0.520 and the significant value of .000. The relationship is significant at 95% confidence interval. In the same way Hypotheses 2b is affirmed. It was postulated that a positive and statistically significant association exist between corporate social responsibility and service quality of private hospitals in Ghana. Thus the hypothesis (2b) is also supported by the path coefficient value of 0.370 and the significant value of .000. This relationship is also statistically significant at 95% confidence interval. Similarly, it was postulated that a positive and statistically significant association exist between collaborative networks and service quality of private hospitals in Ghana. Hypothesis 2c that underpins this assertion is supported by the path coefficient value of 0.830. Again a significant value of .001 suggests that the aforementioned relationship is significant at 95% confidence interval. Another hypothesis was H2d in which it is asserted that a positive and statistically significant association exists between service quality of private hospitals in Ghana and patient satisfaction. The value of the path coefficient is 0.193 and the

significant value is .009 that supports acceptance of the hypothesis as well as the significance of the outcome. The mediating role of patient satisfaction in the relationship between service quality in private hospitals in Ghana and patient loyalty is also approved. Hypothesis 2e that relates to this assertion is supported by the path coefficient value of 0.014 and the significant value of .030 that is less than 0.05. The relationship is significant at 95% confidence interval. Finally, the mediating role of trust in the relationship between patient satisfaction and service quality of private hospitals in Ghana and patient retention is also empirically tested in this research. Hypothesis 2f that relates to this assertion is supported by the path coefficient value of 0.509 and the significant value of .014 that is statistically significant. The relationship is significant at 95% confidence interval.

#### **IV. DISCUSSION**

When a private hospital has a good tangibility, thus, good physical environment and good quality equipment it will promote the service quality delivery of the healthcare centre. Private hospitals that have good physical environment such as well furniture consulting room, good and clean rest room, spacious car park, wards, surgical rooms etc. will have positive and statistically significant association with the service quality delivery which is in consist with what other researchers has said already (Fatima et al., 2018). Also, in the line with what pervious researchers has said private hospitals that has modernized and quality equipment are able to provide quality services to their patients (Sadiq Sohail, 2003). Providing service quality to these patients who visit these private hospitals are largely based on the infrastructure and equipment (tangibility) at the hospital (Amin & Nasharuddin, 2013)

The result of this study is different from the idea of (Siniora, 2017) that state that CSR of private hospitals is to increase the profit of the shareholders. The study has revealed that there is a positive and statistically significant association exists between corporate social responsibility and service quality of private hospitals in Ghana. One area that has raised most concern among private hospitals is their CSR on the environmental. Most the activities of the private hospitals are likely to affect the environment. Currently, there many serious environmental problems facing the communities where these private hospital are established as a result of their medical activities, this include; resource shortages, pollution, global warming and damage to drainage/water bodies. Private hospital been a component of the economic unity of a country has the responsibility to protect the environment and provide quality service to their patients. The study result shows that private hospitals in Ghana have concerned and agreed to the idea that CSR in a varying range of responsibilities toward the provision of service quality in society is similar to many previous studies (Abukari & Abdul-Hamid, 2018). There are a lot of epidemic diseases and serious new diseases around the world that need close attention which the hospitals need to keep under control, this has makes the hospitals sometime forget their corporate social responsibility in the community. Especially, nowadays, many patients are raising concern about the medical

activities of the private hospitals in Ghana on their social and environmental issues. Some of these concerns are on the lack of responsibility from hospitals, even some also argued that private hospital protect their staffs more then their patients and the environment in which the hospital suited (Rogers et al., 2004), but this study has proving that most private hospitals in Ghana involved themselves in Corporate Social Responsibilities activities in the betterment of the community which consistence with study of (Yankson, 2010)

The results of study indicate that Collaborating Networking activities conducted by private hospitals will likely be able to improve the service quality of hospital. According to researchers and the practitioners, private hospitals had to carefully set collaboration Networks policy in dealing with other healthcare institutions in order to create a good reputation for the hospital that will have along time effect among stakeholder(Halevy & Brody, 1996). The findings of this study were in consistence with the study of (Peng & Bourne, 2009) that support the fact that private hospitals are commit to do Collaboration Networking with other healthcare institutions because of the threat of losing reputation and losing most of their shareholders profits. Also (Hibbard et al., 2005) stated that collaboration Networking with other hospitals will enhance the private hospitals reputation which is support of the finding of this research. Any Collaboration Networking activities with а respected healthcare institution in the world that are announced or published will have more impact on the hospital shareholders profit. This study has also revealed that for a private hospital to deliver a successful service quality, the healthcare institution should have to be highly aware of the important of the collaboration Networking with other healthcare institution, by this healthcare, institutions will offer

quality healthcare delivery to the patients who comes for treatment at these healthcare institutions and also protect the stakeholders profit in general was in line with previous study done by (Calò et al., 2018). In the study, the researcher asked patients how the hospital's collaboration Networking with other healthcare institution has been of help to them in receiving treatment from these private hospitals. When private hospital involved themselves in the collaboration Networking activities such as health education, providing medical helping support systems, and the idea of staffs involving in medical exchange programs, in the minds of the patents, it is also attached to the stronger reputation of the hospital. Collaboration networking between private hospital and other healthcare institutions may increase their reputation(Siegel et al., 2018). Stakeholders connect reputation to a good impression of the service, impression of service reliability, the impression of the service perception, the impression of good management, and most importantly a general good impression is also in line with previous study by (Highhouse et al., 2009). Collaboration Networking will help in the quality healthcare delivery and also increase of the reputation of the private hospital among the patients who visit the hospital for treatment.

The result of the study also revealed that even though patient will received all the service quality delivery from a private hospital but may not return to the same private hospital if they don't trust the administration of the private hospital to keep the healthcare information or data confidential and the vice vasa. Good healthcare delivery of a private hospital without the confidence of the patient to entrust their healthcare data to the hospital will discourage the patient from returning to the same hospital. This is consist with the study conducted by (Kissi et al., 2020) which state that patient data linked to unauthorized or access by unauthorized person through linkage or hacking will tarnished the image of the private hospitals. This may in the long run deprive the patient from entrusting the medical information in the care of such healthcare facility or hospital.

The analysis of this paper further showed that a hospital may have all the qualify medical and nonmedical, have all the modernized equipment, provide all the safety guideline at the hospital, established various strategies to improve healthcare at the hospital, and involve themselves in different collaboration and social responsibilities, if the patient who come the private hospital for treatment are not satisfy with the service quality delivery at the hospital they may not return to that private hospital again. This is link with the study done by (Banahene & Dai, 2019) which revealed that patients might not return to the same hospital if they are not satisfy with the service delivery of the healthcare facility even though that hospital may have all the qualities of factors of providing healthcare service to their patients. This cements the fact that patients will only return to hospital that will be able to satisfy their medical needs. Which is consisting with pervious study done by (Larson et al., 2013). Which state that patient retention can only be achieve when all resource of the healthcare facility are been use for the quality treatment of the patient who come the hospitals.

#### V. SUMMARY

The findings of this research support the hypotheses that were postulated in this research. Firstly there is support for the assertion that the tangible attributes of hospital services is an important issue for patients and require considerable attention if hospital in Ghana wants to retain their patients for continuous visits. In essence all the dimensions of the extrinsic mechanism has been empirically validated and contribute to the body of research that affirms the general applicability of this model for health service evaluation. In variably hospitals that want to improve their service quality must pay attention to the physical environment of their hospitals. They should ensure that the hospital operate in good hygienic conditions. Most importantly hospitals need to invest in technology to give patients interactive personalized services where possible.

A key innovative finding of this research is the positive association between corporate social responsibility involvement and service quality as well as hospitals involvement in collaborative networks. Through corporate social responsibility, hospitals can prove themselves worthy of trust in the society because it epitomizes their belief in the highly revered social contract theory that place contiguous and convivial relationship between business and society at the heart of social development. This is credited to them as service quality in the opinion of customers. These second and third hypotheses are equally affirmed. The fourth research hypothesis postulated that the corresponding high service quality that is obtained from social responsibility tangibility, and collaborative networks further strengths patient retention to these hospitals. The findings of this research support the idea that private hospitals can attract retain a lot of their clients if they improve their services through collaboration and social responsibility. The mediating role of trust and patient satisfaction in the interplay between service quality and patient satisfaction is well documented in the current literature and has been affirmed by the findings of this research.

#### **VI. ETHICS STATEMENT**

Respondents were assured that data would be used for research study only. To ensure the anonymity of the respondents the researcher decided to use number identification instead of using their name. Completed questionnaires were considered consent to participate in the survey. All information was strictly confidential.

#### **VII.FUNDING INFORMATION**

This work was funded by National Nature Science Foundation of China (71774069), 2014 "Six Talent Peak" Project of Jiangsu Province (2014-JY-004).

### **VIII. REFERENCES**

- Aarts, J., Ash, J., & Berg, M. (2007). Extending the understanding of computerized physician order entry: Implications for professional collaboration, workflow and quality of care. International Journal of Medical Informatics, 76(SUPPL. 1), S4–S13. https://doi.org/10.1016/j.ijmedinf.2006.05.009
- [2]. Abukari, A. J., & Abdul-Hamid, I. K. (2018). Corporate social responsibility reporting in the telecommunications sector in Ghana. International Journal of Corporate Social Responsibility, 3(1), 1–9. https://doi.org/10.1186/s40991-017-0025-9
- [3]. Al-Mhasnah, A. M., Salleh, F., Afthanorhan, A., & Ghazali, P. L. (2018). The relationship between services quality and customer satisfaction among Jordanian healthcare sector. Management Science Letters, 8(12), 1413–1420. https://doi.org/10.5267/j.msl.2018.10.003
- [4]. Amin, M., & Nasharuddin, S. Z. (2013). Hospital service quality and its effects on patient satisfaction and behavioural intention. Clinical

Governance, 18(3), 238–254. https://doi.org/10.1108/CGIJ-05-2012-0016

- [5]. Banahene, J., & Dai, B. (2019). Quality Healthcare Service Delivery and Patient Satisfaction in the Ghanaian Government Hospital: The Case of Nkawie Government Hospital – Ghana. Canadian Journal of Applied Science and Techhnology, 7(3), 902–909.
- [6]. Blair, E., & Burton, S. (1987). Cognitive Processes Used by Survey. Journal of Consumer Research, 14, 280–288.
- [7]. Blau, T. H. (1969). The professional in the community views the nonprofessional helper: Psychology. Professional Psychology, 1(1), 25–31.
- [8]. Borden, L. M., & Perkins, D. F. (1999). Assessing your collaboration: A self evaluation tool. Journal of Extension, 37(2), 78–83.
- [9]. Calò, F., Teasdale, S., Donaldson, C., Roy, M. J., & Baglioni, S. (2018). Collaborator or competitor: assessing the evidence supporting the role of social enterprise in health and social care. Public Management Review, 20(12), 1790– 1814.

https://doi.org/10.1080/14719037.2017.1417467

- [10]. Carroll, J. M., Santucci, G., Kang, T. I., & Feudtner, C. (2007). Partners in pediatric palliative care: A program to enhance collaboration between hospital and community palliative care services. American Journal of Hospice and Palliative Medicine, 24(3), 191– 195. https://doi.org/10.1177/1049909106298393
- [11]. Chahal, H., & Kumari, N. (2010). Development of multidimensional scale for healthcare service quality (HCSQ) in Indian context. Journal of Indian Business Research, 2(4), 230–255. https://doi.org/10.1108/17554191011084157
- [12]. Chen, C.-H., & Hsiao, C.-M. (2020). Can International Standards Discriminate the Corporate Social Responsibility/Irresponsibility? Empirical Evidence from Taiwan. Journal of

Business and Management Sciences, 8(1), 28–37. https://doi.org/10.12691/jbms-8-1-5

- [13]. Clara Martínez Fuentes. (1999). Measuring Hospital Service Quality: A Methodological Study. Managing Service Quality, 9(4), 230–240.
- [14]. DiBenigno, J., & Kellogg, K. C. (2014). Beyond Occupational Differences: The Importance of Cross-cutting Demographics and Dyadic Toolkits for Collaboration in a U.S. Hospital. In Administrative Science Quarterly (Vol. 59, Issue 3). https://doi.org/10.1177/0001839214538262
- [15]. Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems. International Journal of Quality and Reliability Management, 35(6), 1195–1214. https://doi.org/10.1108/IJQRM-02-2017-0031
- [16]. Gajda, R. (2004). Utilizing collaboration theory to evaluate strategic alliances. American Journal of Evaluation, 25(1), 65–77. https://doi.org/10.1016/j.ameval.2003.11.002
- [17]. Gulati, A. (2002). Effect of Diaspirin Crosslinked Hemoglobin on Systemic and Regional Blood Circulation. Tissue Oxygenation in Acute Medicine, 19, 307–315. https://doi.org/10.1007/978-3-642-58268-4\_20
- [18]. Halevy, A., & Brody, B. A. (1996). A multiinstitution collaborative policy on medical futility. Journal of the American Medical Association, 276(7), 571–574. https://doi.org/10.1001/jama.276.7.571
- [19]. Hepple, J., Kipps, M., & Thomson, J. (1990). The concept of hospitality and an evaluation of its applicability to the experience of hospital patients. International Journal of Hospitality Management, 9(4), 305–318. https://doi.org/10.1016/0278-4319(90)90038-Y
- [20]. Hibbard, J. H., Stockard, J., & Tusler, M. (2005).Hospital performance reports: Impact on quality, market share, and reputation. Health

Affairs, 24(4), 1150–1160. https://doi.org/10.1377/hlthaff.24.4.1150

- [21]. Highhouse, S., Brooks, M. E., & Gregarus, G.
  (2009). An organizational impression management perspective on the formation of corporate reputations. Journal of Management, 35(6), 1481–1493. https://doi.org/10.1177/0149206309348788
- [22]. Hossain, M.S., Yahya, S.B. and Khan, M. J. (2019). The effect of corporate social responsibility (CSR) health-care services on patients' satisfaction and loyalty – a case of Bangladesh. Social Responsibility Journal, 16(2), 145–158.
- [23]. Kaiser, M. O. (1974). Kaiser-Meyer-Olkin measure for identity correlation matrix. Journal of the Royal Statistical Society, 52.
- [24]. Kissi, J., Dai, B., Banahene, J., Dogbe, C. S. K., & Ernest, O. (2020). Predictive factors of physicians' satisfaction with telemedicine services acceptance. Health Informatics Journal, 26(3), 1866–1880. https://doi.org/10.1177/1460458219892162
- [25]. Kohler, J. C., & Dimancesco, D. (2020). The Risk of Corruption in Public Pharmaceutical Pocurement: How Anti-Corruption, Transparency and Accountability Measures May Reduce this Risk. Global Health Action, 13(sup1).

https://doi.org/10.1080/16549716.2019.1694745

- [26]. Kot, S., & Syaharuddin, S. (2020). The government reform on healthcare facilities from the standpoint of service quality performance. International Journal of Economics and Finance Studies, 12(1), 16–31. https://doi.org/10.34109/ijefs.202012102
- [27]. Larson, B. A., Bii, M., Henly-Thomas, S., McCoy, K., Sawe, F., Shaffer, D., & Rosen, S. (2013). ART treatment costs and retention in care in Kenya: A cohort study in three rural outpatient clinics. Journal of the International

AIDS Society, 16, 1–5. https://doi.org/10.7448/IAS.16.1.18026

- [28]. Lee, D. H. (2017). HEALTHQUAL: a multi-item scale for assessing healthcare service quality. Service Business, 11(3), 491–516. https://doi.org/10.1007/s11628-016-0317-2
- [29]. Mchugh, M. L. (2013). The Chi-square test of independence Lessons in biostatistics. Biochemia Medica, 23(2), 143–149. http://dx.doi.org/10.11613/BM.2013.018
- [30]. Mohammed, M. O., Abdul-Jaleel, T., Najres, A. M., & Farhan, I. H. (2016). A Novel Study for Chemical Composition of Al-Ahdaab Field Crude Oil. International Journal of Current Research and Academic Review, 4(9), 71–80. https://doi.org/10.20546/ijcrar.2016.409.006
- [31]. Öberg, U., Orre, C. J., Isaksson, U., Schimmer, R., Larsson, H., & Hörnsten, Å. (2018). Swedish primary healthcare nurses' perceptions of using digital eHealth services in support of patient self-management. Scandinavian Journal of Caring Sciences, 32(2), 961–970. https://doi.org/10.1111/scs.12534
- [32]. Pallant, J. F., & Tennant, A. (2007). An introduction to the Rasch measurement model: An example using the Hospital Anxiety and Depression Scale (HADS). British Journal of Clinical Psychology, 46(1), 1–18. https://doi.org/10.1348/014466506X96931
- [33]. Panchapakesan, P., Sai, L. P., & Rajendran, C.
  (2015). Customer satisfaction in Indian hospitals: Moderators and mediators. Quality Management Journal, 22(1), 10–29. https://doi.org/10.1080/10686967.2015.11918416
- [34]. Panigrahi, S. K., Azizan, N. A., & Khan, M. W. (2018). Investigating the empirical A. relationship between service quality, trust, satisfaction, and intention of customers purchasing life insurance products. Indian Journal of Marketing, 48(1),28-46. https://doi.org/10.17010/ijom/2018/v48/i1/12073 4

- [35]. Peng, T. J. A., & Bourne, M. (2009). The coexistence of competition and cooperation between networks: Implications from two taiwanese healthcare networks. British Journal of Management, 20(3), 377–400. https://doi.org/10.1111/j.1467-8551.2008.00565.x
- [36]. Quill, T. E., & Brody, H. (1996). Physician Recommendations and Patient Autonomy: Finding a Balance between Physician Power and Patient Choice. Annals of Internal Medicine, 125(9), 763–769. https://doi.org/10.7326/0003-4819-125-9-199611010-00010
- [37]. Rogers, A. E., Hwang, W. T., Scott, L. D., Aiken, L. H., & Dinges, D. F. (2004). The working hours of hospital staff nurses and patient safety. Health Affairs, 23(4), 202–212. https://doi.org/10.1377/hlthaff.23.4.202
- [38]. Sadiq Sohail, M. (2003). Service quality in hospitals: More favourable than you might think. Managing Service Quality: An International Journal, 13(3), 197–206. https://doi.org/10.1108/09604520310476463
- [39]. Saunders, S., Rod, M., Mostafa, M., Manzano, A., & Pawson, R. (2012). International Journal of Pharmaceutical and Healthcare Marketing. Journal of Health Organization and Management, 28(2), 1–34. https://doi.org/10.1108/17506121211216905
- [40]. Siegel, B., Erickson, J., Milstein, B., & Pritchard, K. E. (2018). Multisector partnerships need further development to fulfill aspirations for transforming regional health and well-being. Health Affairs, 37(1), 30–37. https://doi.org/10.1377/hlthaff.2017.1118

- [41]. Siniora, D. (2017). Corporate Social Responsibility in the Health Care Sector. In Duquesne University, Duquesne Scholarship Collection.
- [42]. Torfing, J. (2019). Collaborative innovation in the public sector: the argument. Public Management Review, 21(1), 1–11. https://doi.org/10.1080/14719037.2018.1430248
- [43]. Yang, T., Ma, M., Guo, Y., Li, Y., Tian, H., Liu, Y., Chen, Q., Zhang, S., & Deng, J. (2019). Do Job Stress, Health, and Presenteeism Differ between Chinese Healthcare Workers in Public and Private Hospitals: a Cross Sectional Study. Psychology, Health and Medicine, 00(00), 1–13. https://doi.org/10.1080/13548506.2019.1668564
- [44]. Yankson, P. W. K. (2010). Gold mining and corporate social responsibility in the Wassa West district, Ghana. Development in Practice, 20(3), 354–366. https://doi.org/10.1080/09614521003709965

### Cite this article as :

Jonathan Banahene, Baozhen Dai, Jonathan Kissi, Maxwell Opuni Antwi, " Examine the Extrinsic Mechanism of Service Quality Factors and it Effect on Patient Retention in Ghanaian Private Hospitals, Using Trust and Patient Satisfaction as Mediator", International Journal of Scientific Research in Science and Technology(IJSRST), Print ISSN : 2395-6011, Online ISSN : 2395-602X,Volume 8, Issue 1, pp.255-270, January-February-2021. Available at doi : https://doi.org/10.32628/IJSRST207563 Journal URL : https://ijsrst.com/IJSRST207563