

Assessing Intrinsic Mechanism of Service Quality and it Effect on Patient Retention in Ghanaian Private Hospitals. Using Trust and Patient Satisfaction as Mediators

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ABSTRACT

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Accepted : 01 March 2021 Published : 04 March 2021 The achievement of patient retention by a private healthcare facility can be established by the provision of quality service delivery. The main objective of this paper is to assess the intrinsic mechanism of service quality factors and it effect on patient retention in Ghanaian private hospitals. And also assess the mediating role of trust and patient satisfaction between intrinsic mechanism of service quality factors and patient retention. The sample size of the study was 880 patients. Data collection was done among inpatient and outpatients of four selected private hospitals in the Ashanti region of Ghana. The questionnaires used for the study were made up of forty items that include twenty-seven items on intrinsic mechanism of service quality; two items on trust, three items of service quality and four items of patient satisfaction were use as mediators of service quality factors and patient retention, lastly, four items on Patient retention. The validity and reliability of the data was confirmed. WarpPLS software was use to analysis the data. It was revealed that there is a strong relationship between the factors of service quality (Empathy, Safety, Improvement of care and Efficient) and service quality, the study also revealed that there is a positive relation between the factors of server quality and patient retention. The mediating role of trust and patient satisfaction showed significant relation between factors of service quality and patient retention. This paper suggested that if private hospitals administrators will pays much responsiveness to the above factors of service quality, they will retain most of their patients who come their institution for treatment. This study further emphasis that trust and patient satisfaction should be the standard of every private hospitals to retain their patients.

Keywords : *Empathy, Safety, Improvement of care, Efficient, Trust, Patient satisfaction and retention*

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I. INTRODUCTION

The objective of this study is to highlight the significant influence of intrinsic service quality factors on patient retention among the private healthcare facilities in Ghana. This study seeks to answer questions in respect of the first research hypothesis. Regarding the influence of empathy on service quality of healthcare facilities, the extant literature suggest that institutions that hospitals are the most basic institutions of care. It is the home of for people who are reluctant to be there but have frailty of body and mind that is a natural condition of humanity gives them no choice. In their most difficult moments healthcare service providers must develop attitudes that reflects element of utmost care and emotions. For many patients, the hospital may be their last encounter with humanity and hospitals officials may become true confidants and trusted companions on their respective journey. Hospitals better understand and serve patients with utmost attention. When these conditions persist, the quality of service of the organizations is improved and vice versa. On the other hand, prior research studies underscore the fact that safety of patients is an essential factor in determining service quality.With documented evidence of patient abuse, wrong diagnoses and prognosis, poor physical conditions of healthcare facilities and avoidable exposure to highly risk patients, patient safety ensures elicits trust that can sustain patient retention.

According to (Lin & Wu, 2011)patients like most other service consumers expect hospitals to bring improvement to the way their services are provided. Patients expect hospitals to be able to resolve complaints and adopt new techniques, technologies and employ highly resourceful personnel to provide them with improved services. In instances where patients consider the services provided by other establishments are superior to those offered in a preferred hospital, there is the likelihood of changing hospital in so far as the switching cost is not excessively significant. Efficiency of the service underscores the ability of the organization to provide cost effective service and avoid wasting resources. Patients expect organization to be able to reduce queues and offer them more personalized interactive services that enable them to get value for money as persist in other service platforms. When hospital service is deemed efficiently delivered, it helps facilities to attract more patients to secure their operations. With an enhanced quality of service, trust and patient satisfaction becomes strong factors in stimulating patient retention, as hospitals are able to win the trust of their clients. With this knowledge, this chapter seeks to explore seven main hypotheses as follows

Hypotheses of the Study

- Ha. The delivery of empathetic services is positively associated with high service quality levels among private hospitals in Ghana
- 2. Hb. Hospitals that prioritize the safety of patients are more likely to improve their service quality levels
- 3. Hc. Hospitals that pursue continuous service improvement for their patients are more likely to improve their service quality levels
- 4. Hd. Hospitals that prioritize efficient service delivery for patients are more likely to improve their service quality levels
- 5. He. Hospitals that offer high quality services to their patients are more likely to improve patient retention
- 6. Hf. The relationship between the delivery of high quality service by hospitals and patient retention is mediated by the patient's trust

7. Hh. 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

Conceptual Framework of Intrinsic Mechanism Figure 1



Methodology

The methodology of this section entails the process of data collection and analytical procedures that were employed to draw conclusions from the research. Questionnaire data collection instrument was constructed based on previous attempts to conceptualize the intricate relationship between service quality and customer behavior in other industries in general and the healthcare sector in particular. The four main constructs that incidentally served as the independent variables for service quality were empathy, safety, improvements and efficiency. They were collated from the HEALTHQUAL model proposed by (Lee, 2017). The attributes of trust was measured based on the work of (Somu et al., 2017) whereas the attributes of patient satisfaction and patient retention were measured based on the prior works of (Ng & Luk, 2019)and (Moodie et al., 2016) respectively. Each construct was measured by a number of selected questions that were reconfigured to suit the objectives of the research. The items of the questionnaire were configured into a five point Likert scale in order to rank responses from the respondents. A scale value of 5 was designated as strongly agree whereas a value of 1 was designated as strongly disagree.Consistent with the prior work of (Brown & Nicassio, 1987), the questions were asked in both the active and the passive form in order to measure expectations gaps i.e. respondents were asked to rank the importance of each of the questions and then further indicate the extent to which they were satisfied with its provision in the designated hospitals. For example, Empathy (EM) was measured with five questions in consistence with (Gesn & Ickes, 1999) while safety was also measured with six main questions. On the other hand efficiency was also measured using six questions whereas improvements were measured using eight questions. Service quality was measured using three questions. Trust was measured based on two questions whereas patient satisfaction was measured based on four main questions. Lastly patient retention was measured using four questions. The questionnaires were piloted on 20 respondents who were selected form the respondents in order to review and fine tune the instrument to improve its validity and reliability. Data collection was done among inpatient and outpatients of four private hospitals that were selected from the Ashanti region of Ghana. Patients were randomly asked to participate in the research and were not required to fill the questionnaires that were self-administered to them. The researcher employed research assistances to assist the patients in answering the questions. The average data collection lasted within 10 minutes as the responses to the questionnaire coded as closed were ended questionnaire to reduce errors. In all a total of 880 responses were collated. The data was analyzed using 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

Results Descriptive Statistics

| | | Minimu | | | Std. | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | Ν | m | Maximum | Mean | Deviation | Ske | wness |
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error |
| Empathy | 880 | 3.00 | 5.00 | 4.035 | .681 | 044 | .082 |
| Safety | 880 | 2.00 | 4.00 | 4.820 | .384 | -1.673 | .082 |
| Improvements | 880 | 3.00 | 5.00 | 4.428 | .729 | 861 | .082 |
| Efficiency | 880 | 3.00 | 5.00 | 4.072 | .703 | 102 | .082 |
| Service Quality | 880 | 3.00 | 5.00 | 4.105 | .772 | 184 | .082 |
| Trust | 880 | 3.29 | 5.00 | 4.119 | .506 | .108 | .082 |
| Patient Satisfaction | 880 | 3.43 | 4.71 | 4.154 | .363 | 441 | .086 |
| Patient Retention | 880 | 3.50 | 5.00 | 4.558 | .472 | 749 | .086 |
| Valid N (listwise) | 880 | | | | | | |

 Table 1 : Descriptive Statistics

Table 1, presents the descriptive statistics of the analysis that has been conducted to determine the strength of the responses to each of the indicator variables to be analyzed in this section of the research. The first of the 8 constructs is empathy. The response ranges from a minimum of 3.0 to a maximum of 5.0 with a mean response value of 4.03. The standard deviation is 0.681 and the data is negatively skewed. When it comes to safety the table shows that the response ranges from a minimum of 1.0 to a maximum of 4.0 with a mean response value of 4.820. The standard deviation is .384 and the data is negatively skewed. The next variable is improvements constructs and the response ranges from a minimum of 3.00 to a maximum of 5.00 with a mean response value of 4.428. The standard deviation is .729 and the data is negatively skewed. 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 skewed. Regarding positively 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. Other preliminary statistics have been provided in the next section.

| Table 2 : KMO and Bartlett's T |
|--------------------------------|
|--------------------------------|

| Kaiser-Meyer-Olkin Measure | 700 |
|----------------------------|----------|
| of Sampling Adequacy. | .782 |
| Approx. Chi- | 7201 276 |
| Bartlett's Test Square | 2361.320 |
| of Sphericity df | 358 |
| Sig. | .000 |

The next procedure that was used to check the reliability of the collected data was to explore the adequacy of the samples that have been taken. According to (Seng, 1951) a sample need not be extremely large before conclusions can be drawn but it must be representative to guarantees reasonable deductions from the population trends. In statistics the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is a preferred option and was applied to this research due to robustness of inference. The table shows a KMO value of .782 that outperforms the recommended KMO value of 0.05(Kaiser, 1982). According to Kaiser, a KMO value of 0.5 is the minimally acceptable value but a KMO value between 0.7 and 0.8 is highly accepted. Any value in excess of 0.8 is deemed an excellent KMO value hence the results as shown in table supports a very highly acceptable sampling adequacy test. However this information is not enough to conclude on the reliability of the information (Xanthopoulos et al., 2013). The second section of the table shows the Bartlett's Test of Sphericity. This provides information about the intra-variable strength or whether the correlation matrix is an identity matrix or not. This is the type of matrix where all the diagonal items have a value of 1 and the off diagonal items are close to 0. In this case the Bartlett's Test of Sphericity 0.000 which means the null hypothesis that the correlation matrix is not an identity matrix is rejected.

Table 3 : Extraction Method: Principal Component

 Analysis

| Constructs | Initial | Extraction | |
|------------|---------|------------|--|
| EMP1 | 1 | 0.739 | |
| EMP2 | 1 | 0.851 | |
| EMP3 | 1 | 0.892 | |
| EMP4 | 1 | 0.909 | |
| EMP5 | 1 | 0.756 | |
| EMP6 | 1 | 0.622 | |
| EMP7 | 1 | 0.694 | |
| | | | |

| SAFI | 1 | 0.779 |
|------|---|-------|
| SAF2 | 1 | 0.804 |
| SAF3 | 1 | 0.764 |
| SAF4 | 1 | 0.809 |
| SAF5 | 1 | 0.793 |
| SAF6 | 1 | 0.804 |
| EFY1 | 1 | 0.777 |
| EFY2 | 1 | 0.722 |
| EFY3 | 1 | 0.688 |
| EFY4 | 1 | 0.751 |
| EFY5 | 1 | 0.724 |
| EFY6 | 1 | 0.824 |
| IMP1 | 1 | 0.843 |
| IMP2 | 1 | 0.657 |
| IMP3 | 1 | 0.813 |
| IMP4 | 1 | 0.813 |
| IMP5 | 1 | 0.848 |
| IMP6 | 1 | 0.818 |
| IMP7 | 1 | 0.754 |
| IMP8 | 1 | 0.794 |
| TRU1 | 1 | 0.786 |
| TRU2 | 1 | 0.796 |
| SEQ1 | 1 | 0.797 |
| SEQ2 | 1 | 0.915 |
| SEQ3 | 1 | 0.866 |
| PAS1 | 1 | 0.822 |
| PAS2 | 1 | 0.843 |
| PAS3 | 1 | 0.657 |
| PAS4 | 1 | 0.813 |
| PAR1 | 1 | 0.813 |
| PAR2 | 1 | 0.880 |
| PAR3 | 1 | 0.818 |
| PAR4 | 1 | 0.657 |

Table 3, presents the communalities variables used in the final path analysis to establish the relationship between the independent and the dependent variables. The first part of the table shows the maximum variance explained by the extraction in the variables. Each of them has a value of 1. On the other hand section two of the communalities table shows the actual variance extracted which is the proportion

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of the variance that can be explained. As a rule of thumb a variance extracted value of 0.5 is acceptable (Smisha, 2018) or high enough to conduct further analysis. Those of the variables explored in this study

returned values in excess of 0.5. Most importantly, the least value is 0.622 whereas the largest value is 0.909.

| VADIARIE | α CR | CP | AVE | | FACTOR |
|-----------------|------|-------|-------|-------|---------|
| VARIADLE | | CK | AVL | | LOADING |
| Empathy | | 0.782 | 0.849 | 0.893 | |
| EMP1 | | | | | 0.831 |
| EMP2 | | | | | 0.894 |
| EMP3 | | | | | 0.823 |
| EMP4 | | | | | 0.892 |
| EMP5 | | | | | 0.923 |
| EMP6 | | | | | 0.954 |
| EMP7 | | | | | 0.781 |
| Safety | | 0.953 | 0.982 | 0.758 | |
| SAF1 | | | | | 0.763 |
| SAF2 | | | | | 0.861 |
| SAF3 | | | | | 0.959 |
| SAF4 | | | | | 0.857 |
| SAF5 | | | | | 0.882 |
| SAF6 | | | | | 0.854 |
| Improvement | | 0.928 | 0.893 | 0.727 | |
| IMP1 | | | | | 0.852 |
| IMP2 | | | | | 0.832 |
| IMP3 | | | | | 0.938 |
| IMP4 | | | | | 0.792 |
| IMP5 | | | | | 0.928 |
| IMP6 | | | | | 0.848 |
| IMP7 | | | | | 0.844 |
| IMP8 | | | | | 0.871 |
| Trust | | 0.788 | 0.825 | 0.812 | |
| TRU1 | | | | | 0.852 |
| TRU2 | | | | | 0.891 |
| Service Quality | | 0.783 | 0.818 | 0.935 | |
| SEQ1 | | | | | 0.741 |
| SEQ2 | | | | | 0.863 |
| SEQ3 | | | | | 0.854 |

Table 4 : Confirmatory Factor Analysis

| Patient Satisfaction | 0.85 | 0.837 | 0.942 | |
|----------------------|-------|-------|-------|-------|
| PAS1 | | | | 0.833 |
| PAS2 | | | | 0.867 |
| PAS3 | | | | 0.893 |
| PAS4 | | | | 0.841 |
| Patient Retention | 0.834 | 0.729 | 0.742 | 0.823 |
| PAR1 | | | | 0.763 |
| PAR2 | | | | 0.827 |
| PAR3 | | | | 0.728 |
| PAR4 | | | | 0.882 |

| | | | Corrected | Cronbach's |
|----------------------|---------------|-----------------|-------------|---------------|
| | Scale Mean if | Scale Variance | Item-Total | Alpha if Item |
| | Item Deleted | if Item Deleted | Correlation | Deleted |
| Empathy | 26.1935 | 6.364 | .486 | .718 |
| Safety | 29.4435 | 9.417 | 351 | .817 |
| Improvements | 25.8185 | 5.534 | .726 | .658 |
| Efficiency | 26.1518 | 5.794 | .638 | .681 |
| Service Quality | 26.1101 | 6.794 | .366 | .744 |
| Trust | 26.1458 | 6.937 | .596 | .704 |
| Patient Satisfaction | 26.0685 | 7.037 | .768 | .694 |
| Patient Retention | 25.7143 | 7.350 | .441 | .728 |

Table 5 : Correlations Item-Total Statistics

In this research the individual questions were computed into composite values and the composite variables were the ones that were used for the analysis. Before using the individual composite factors, their internal consistency was determined. This involves establishing the accuracy with which individual items measure the designated construct as a group. In the extant literature, two main methods are used to explore the internal consistency. These are the composite reliability factor as well as the Cronbach alpha's correlation coefficient. Table 5, presents the results of the Cronbach's alpha. Researchers are inconsistent about the threshold for accepting the Cronbach's alpha correlation coefficient value. According to (Dakanalis et al., 2017) the number of items in the composition accounts strongly for a more reliable value and asserts that where a construct is made up of between 5 and 8 items, then a minimal threshold of 0.80 is required. The research constructs are placed within this threshold hence a benchmark of 0.8 was set. The table shows that each of the eight constructs recorded a Cronbach Alpha correlation coefficient value in excess of 0.8 hence a proof of internal consistency among the variables.



Table 6 : Multicollinearity

*. Correlation is significant at the 0.05 level (2-tailed).

| | | | Empath y | Safety | Improvemen ts | Efficienc y | Service Quality | Trust | Patient Satisfaction | Patient Retention |
|--------------------|-------------------------|----------------------------|--------------|--------------|------------------|----------------|--------------------|--------------|-------------------------|----------------------|
| Spearma n's rho | Empathy | Correlation Coefficient | 1.000 | 248** | .392** | .354** | .200** | .493** | .477** | .006 |
| | | Sig. (2-tailed) N | 880 | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | .858 880 |
| | Safety | Correlation Coefficient | 248** | 1.000 | 078* | 352** | 166** | 354** | 363** | 020 |
| | | Sig. (2-tailed) N | .000 880 | 880 | .020 880 | .000 880 | .000 880 | .000 880 | .000 880 | .557 880 |
| | Improvements | Correlation Coefficient | .392** | 078* | 1.000 | .580** | .355** | .424** | .660** | .436** |
| | | Sig. (2-tailed) N | .000 880 | .020 880 | 880 | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 |
| | Efficiency | Correlation Coefficient | .354** | 352** | .480** | 1.000 | .172** | .477** | .425** | .232** |
| | | Sig. (2-tailed) N | .000. 880 | .000. 880 | .000. 880 | 880 | .000 880 | .000. 088 | .000. 880 | .000 880 |
| | Service Quality | Correlation Coefficient | .200** | 166** | .355** | .172** | 1.000 | .363** | .482** | .458** |
| | | Sig. (2-tailed) N | .000 880 | .000 880 | .000 880 | .000 880 | 880 | .000 880 | .000 880 | .000 880 |
| | Trust | Correlation Coefficient | .493** | 354** | .424** | .677** | .363** | 1.000 | .493** | .229** |
| | | Sig. (2-tailed) N | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | 880 | .000 880 | .000 880 |
| | Patient Satisfaction | Correlation Coefficient | .477** | 363** | .660** | .425** | .482** | .493** | 1.000 | .348** |
| | | Sig. (2-tailed) N | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | 880 | .000 880 |
| | Patient Retention | Correlation Coefficient | .006 | 020 | .436** | .232** | .458** | .229** | .348** | 1.000 |
| | | Sig. (2-tailed) N | .858 880 | .557 880 | .000 880 | .000 880 | .000 880 | .000 880 | .000 880 | 880 |

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

*. Correlation is significant at the 0.05 level (2-tailed).

The last analytical process before carrying out the inferential analysis was to determine the degree of multicollinearity among the variables. This is to determine whether the variables are truly independent of each other. The Variance Inflation Factor score as well as the Correlation Matrix is the most preferred test of multicollinearity. Before carrying out this test, there was the need to examine the normality of the data to determine the appropriate correlation regression to be adopted. The skewness values were used in the absence of the much preferred Kolmogorov-Smirnov and Shapiro Wilks Test. The results of the skewness test showed that the constructs were largely negatively skewed or did not meet the Gaussian distribution threshold. For this reason the non-parametric spearman rank correlation coefficient test was applied and the results are presented in table 5 above. The results show that in the case of service quality, its independent variables namely; empathy, safety, improvement, efficiency have no strong correlation between them but significantly relates to service quality at 95% confidence interval. All other correlation test fell short of the 0.5 correlations r-value as

^{*}Correlation is significant at the 0.01 level (2-tailed).

recommended by (Bassingthwaighte & Bever, 1991). This implies that by and large the independent variables are truly independent and can be used for the inferential analysis.

Figure 2 shows the path diagram that shows the relationship between the independent and the dependent variables as well as the mediating factors. Detail explanation and implication for the research hypothesis are presented in Table 7 below



 Table 7 : Path Coefficient Analysis

| Parameter | | | Estimate | Lower | Upper | Р |
|-----------|-------|-----|----------|--------|-------|-------|
| SEQ | < | EMP | 0.562 | 0.385 | 0.956 | 0.004 |
| SEQ | < | SAF | 0.421 | 0.549 | 0.853 | 0.002 |
| SEQ | < | IMP | 0.682 | 0.149 | 0.856 | 0.005 |
| SEQ | < | EFY | 0.048 | -0.050 | 0.073 | 0.010 |
| PAR | < | SEQ | 0.815 | -0.086 | 0.047 | 0.017 |
| PAR < | TRU < | SEQ | 0.036 | 0.172 | 0.637 | 0.018 |
| PAR < | PAS < | SEQ | 0.593 | 0.385 | 0.256 | 0.004 |

The information in table 7, is the summary of the path coefficient and statistical significance level of the relationships that have been analyzed about the hypotheses that were hypothesized at the beginning of the study. Hypothesis 1a that the delivery of empathetic services is positively associated with high service quality levels among private hospitals in Ghana is supported by the findings. The path

coefficient value of 0.562 supports this conclusions and this statistically significant at 95% confidence interval (p = 0.000). On another hand, hypothesis 1b that suggested that hospitals that prioritize the safety of patients are more likely to improve their service quality levels is also validated by the path coefficient results. The recorded value is 0.421 and this is statistically significant at 95% confidence interval (p =



0.000). The path coefficient results of 0.682 and a p value of 0.000 suggest that the postulation that hospitals that pursue continuous service improvement for their patients are more likely to improve their service quality levels is acceptable at a confidence interval of 95%. Further the analysis of the research results also supports hypothesis 1d that indicates that hospitals that prioritize efficient service delivery for patients are more likely to improve their service quality levels. The path coefficient value of 0.048 and a p value of 0.010 supports the above claim. Similar statistically significant results is seen in the case of hypothesis 1e that said that hospitals that offer high quality services to their patients are more likely to improve patient retention. The path coefficient result of 0.815 supports the above assertion. A key element in this research is the mediating role of the trust and patient satisfaction in stimulating positive patient behavior such as loyalty. In this regard, the analysis shows a statistically significant path coefficient value of 0.036 that is statistically significant at 95% confidence interval (p =0.018). Similarly, the results also show that the relationship between the delivery of high quality service by hospitals and patient retention is mediated by the patient's satisfaction. The path coefficient value recorded was 0.593 and the statistical significant level was 0.004.

IV. DISCUSSION

The study show that in the case of service quality, its independent variables namely; empathy, safety, improvement, efficiency have no strong correlation between them but significantly relates to service quality at 95% confidence interval. All other correlation test fell short of the 0.25 correlation r value. This shows that the independent variables are truly independent and can be used for the inferential analysis that is in consistent with the previous findings (Hayes & Montoya, 2017).

The patients' perception of the services' empathetic services is positively associated with high service quality delivery among private hospitals in Ghana, so that, the more positive this empathetic perception was with the patients, they felt more satisfied with service quality delivery which is consistent with the previous study results (Nguyen et al., 2020). Empathy shown by the medical and non-medical staff on patients at the private hospitals is one of the most important dimensions for many patients in accessing and using healthcare service delivery. Empathy of medical and non-medical staff's services at the hospital is in line with a study conducted by (Qolipour, M., Torabipour, A., Faraji Khiavi, F., & Saki Malehi, 2018) who consider service empathy as one of the dimensions in service quality.

Proper safety at the hospital is likely to improve the delivery of service quality and for that matter the safety of the patient should be the priority of every private hospital. The findings of the studies carried out by (Meesala & Paul, 2018)(Lim et al., 2018)(Al-Damen, 2017) show that safety at the healthcare center is relevant in the since that patient will be satisfy at service quality delivery at the private hospitals when the see that they are secure at the hospital. This can be seen when their healthcare information is kept confidential and there is enough protection in and around the premises of the private hospital which was also in line with previous study by (Nikpouraghdam et al., 2020) (Nikpouraghdam et al., 2020)(Taqdees et al., 2017). In the past, healthcare practitioners had different approach to provision of healthcare, they were of the views that delivery of service quality was based on the quality of care that a patient may receive from a hospital, and not much attention was giving to the safety at the hospital (Taqdees et al., 2017). Accordingly this study it has been revealed that when patient received the right service quality delivery and maximum safety from the private hospital the patient who seek treatment from these private hospitals will be satisfy which is in consistence with previous study(Al-Borie & Sheikh Damanhouri, 2013). (Tateke et al., 2012) (Sankar et al., 2003) in their study revealed that when private hospitals are able to keep the healthcare record of patient confidential and are able to provide a good security at the premise of the hospital it will influence the satisfaction of the patients who come to these private hospitals for treatment. One of the major problems that is affecting private hospitals that may force patient not to come to the same hospital is the lockage of confidential healthcare report to an unauthorized personnel by staffs at the hospital and if there is an improper security at the hospital. This can lead to dissatisfaction and anger among patients (Hopkins et al., 2009).

Improvement of service quality at the private hospital is another effective way to achieve patient satisfaction. Previous studies' results show that the used of modern equipment and the upgrading the healthcare process and procedures at the private hospitals are the important and determining factors in the patient satisfaction (Naidu, 2009). Since the improvement of service quality by the administration of the private hospital is inevitable because of the competition among them, this finding can therefore be deemed as logical that patients assign more importance to the way the private hospital improve the services. These results this study is an indicate that private hospitals especially its personnel and physicians are to be encouraged and advised to pursue continuous service improvement for their patients in order to increase the satisfaction of their patients.

The result of the study revealed that any private hospital that put much attention on efficient service delivery for patients are more likely to improve their service quality levels that is consistent with the results obtained from the previous studies (Brugha & Zwi, 1998). Similar study undertaken by (Ramli, 2019)(Jandavath & Byram, 2016) determine how private hospitals can provide quality service by putting medical resources available at the hospital into effective use has a significant and positive effect on the service quality delivery. The efficiency use of medical resources by medical and non-medical staff is factor that are expected by the private hospitals. If the patients who visit the hospital for treatment see the inefficient use of the resources then, it will make them believe that there is lack of service quality delivery at the hospital. However, if medical and nonmedical staffs are able to put medical resources into effective use, it will lead to the achievement of efficiency at the private hospitals, this may also be in consistence with the study of (Ferreira & Marques, 2019) (Kruse et al., 2018) which revealed that quality service delivery at the hospital is as a result of the efficiency use of medical resources.

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., 2019) 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 (Fatima et al., 2018) 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 (Harries et al., 2010). 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. CONCLUSION

In this study the objective was to assess the influence of the intrinsic health quality dimension of service quality and its consequential effect on patient retention. The basis for this study is that patients do not simply make choices of the hospitals they attend. In the past hospitals were considered humanitarian services and barely attracted market place demands from patients as they were deemed to be receiving the favor of the healthcare facilities. This was not surprising because most of the clients of hospitals come in contact with these facilities at the lowest moment of their lives when they are helpless and follows the dictates of the healthcare professional even if they are in disagreement. Todays' healthcare market place has changed dramatically. Patients expect healthcare facilities to compete for their attention and resources as they exercise choice over their decision to patronize a particular hospital or not. In this study four of the key elements that patients consider before they commit their healthcare care need to a hospitals have been discussed and empirically validated. Private hospitals must provide empathetic services to their customers by ensuring that they are there for them at every point of the service delivery process. Moreover, the study noted that ensuring safer healthcare environment is a functional prerequisite to eliciting the retention of healthcare customers. Further in this research, the notion that consistent improvement and efficient utilization of the resources of the organization as panacea for maintaining a strong bond of relationship between hospitals and patients has been supported by the findings of this research.

VI. ETHICS STATEMENT

Respondents were assured that the data was going to be used for research purposes only. This made the researchers labeling each respondent with an identified number instead of a name to ensured anonymity. Completed questionnaires were considered consent to participate in the survey. All information the collected from respondents were made strictly confidential.

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VIII. REFERENCES

- Al-Borie, H. M., & Sheikh Damanhouri, A. M. (2013). Patients' satisfaction of service quality in Saudi hospitals: a SERVQUAL analysis. International Journal of Health Care Quality Assurance, 26(1), 20– 30. https://doi.org/10.1108/09526861311288613
- [2]. Al-Damen, R. (2017). Health Care Service Quality and Its Impact on Patient Satisfaction "Case of Al-Bashir Hospital." International Journal of Business and

Management, 12(9), https://doi.org/10.5539/ijbm.v12n9p136

- [3]. Bassingthwaighte, J. B., & Bever, R. P. (1991). Fractal correlation in heterogeneous systems. Physica D: Nonlinear Phenomena, 53(1), 71–84. https://doi.org/10.1016/0167-2789(91)90165-6
- [4]. Brown, G. K., & Nicassio, P. M. (1987). Development of a questionnaire for the assessment of active and passive coping strategies in chronic pain patients. Pain, 31(1), 53–64. https://doi.org/10.1016/0304-3959(87)90006-6
- [5]. Brugha, R., & Zwi, A. (1998). Health Policy Plan.-1998-Brugha-107-20.pdf. In Health Policy and Planning (Vol. 13, Issue 2, pp. 107–120).
- [6]. Dakanalis, A., Timko, A. C., Clerici, M., Riva, G., & Carrà, G. (2017). Objectified Body Consciousness (OBC) in Eating Psychopathology: Construct Validity, Reliability, and Measurement Invariance of the 24-Item OBC Scale in Clinical and Nonclinical Adolescent Samples. Assessment, 24(2), 252–274. https://doi.org/10.1177/1073191115602553
- [7]. 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
- [8]. Ferreira, D. C., & Marques, R. C. (2019). Do quality and access to hospital services impact on their technical efficiency? Omega (United Kingdom), 86, 218–236. https://doi.org/10.1016/j.omega.2018.07.010
- [9]. Gesn, P. R., & Ickes, W. (1999). The development of meaning contexts for empathic accuracy: Channel and sequence effects. Journal of Personality and Social Psychology, 77(4), 746–761. https://doi.org/10.1037/0022-3514.77.4.746
- [10]. Harries, A. D., Zachariah, R., Lawn, S. D., & Rosen, S. (2010). Strategies to improve patient retention on antiretroviral therapy in sub-Saharan Africa. Tropical Medicine and International Health, 15(1), 70–75. https://doi.org/10.1111/j.1365-3156.2010.02506.x
- [11]. Hayes, A. F., & Montoya, A. K. (2017). A Tutorial on Testing, Visualizing, and Probing an Interaction Involving a Multicategorical Variable in Linear Regression Analysis. Communication Methods and

Measures, 11(1), 1–30. https://doi.org/10.1080/19312458.2016.1271116

- [12]. Hopkins, J. E., Loeb, S. J., & Fick, D. M. (2009). Beyond satisfaction, what service users expect of inpatient mental health care: A literature review. Journal of Psychiatric and Mental Health Nursing, 16(10), 927–937. https://doi.org/10.1111/j.1365-2850.2009.01501.x
- [13]. Jandavath, R. K. N., & Byram, A. (2016). Healthcare service quality effect on patient satisfaction and behavioural intentions in corporate hospitals in India. International Journal of Pharmaceutical and Healthcare Marketing, 10(1), 48–74. https://doi.org/10.1108/IJPHM-07-2014-0043
- [14]. Kaiser, H. F. (1982). Educational and psychological measurement. Serials Review, 8(3), 83–85. https://doi.org/10.1080/00987913.1982.10763392
- [15]. Kissi, J., Dai, B., Dogbe, C. S. K., Banahene, J., & Ernest, O. (2019). Predictive factors of physicians' satisfaction with telemedicine services acceptance. Health Informatics Journal, 26(3), 1866–1880.
- [16]. Kruse, F. M., Stadhouders, N. W., Adang, E. M., Groenewoud, S., & Jeurissen, P. P. T. (2018). Do private hospitals outperform public hospitals regarding efficiency, accessibility, and quality of care in the European union? A literature review. International Journal of Health Planning and Management, 33(2), e434–e453. https://doi.org/10.1002/hpm.2502
- [17]. 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
- [18]. Lim, J. S., Lim, K. S., Heinrichs, J. H., Al-Aali, K., Aamir, A., & Qureshi, M. I. (2018). The role of hospital service quality in developing the satisfaction of the patients and hospital performance. Management Science Letters, 8(12), 1353–1362. https://doi.org/10.5267/j.msl.2018.9.004
- [19]. Lin, J. S. C., & Wu, C. Y. (2011). The role of expected future use in relationship-based service retention. Managing Service Quality, 21(5), 535–551. https://doi.org/10.1108/09604521111159816
- [20]. Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. Journal of Retailing and



136.

Consumer Services, 40(November 2016), 261–269. https://doi.org/10.1016/j.jretconser.2016.10.011

- [21]. Moodie, E. E. M., Karran, J. C., & Shortreed, S. M. (2016). A case study of SMART attributes: A qualitative assessment of generalizability, retention rate, and trial quality. Trials, 17(1), 1–6. https://doi.org/10.1186/s13063-016-1368-3
- [22]. Naidu, A. (2009). Factors affecting patient satisfaction and healthcare quality. International Journal of Health Care Quality Assurance, 22(4), 366–381. https://doi.org/10.1108/09526860910964834
- [23]. Ng, J. H. Y., & Luk, B. H. K. (2019). Patient satisfaction: Concept analysis in the healthcare context. Patient Education and Counseling, 102(4), 790–796. https://doi.org/10.1016/j.pec.2018.11.013
- [24]. Nguyen, T. N. Q., Tran, Q. H. M., & Chylinski, M. (2020). Empathy and delight in a personal service setting. Australasian Marketing Journal, 28(1), 11–17. https://doi.org/10.1016/j.ausmj.2019.08.003
- [25]. Nikpouraghdam, M., Jalali Farahani, A., Alishiri, G. H., Heydari, S., Ebrahimnia, M., Samadinia, H., Sepandi, M., Jafari, N. J., Izadi, M., Qazvini, A., Dorostkar, R., Tat, M., Shahriary, A., Farnoosh, G., Hosseini Zijoud, S. R., Taghdir, M., Alimohamadi, Y., Abbaszadeh, S., Gouvarchin Ghaleh, H. E., & Bagheri, M. (2020). Epidemiological characteristics of coronavirus disease 2019 (COVID-19) patients in IRAN: A single center study. Journal of Clinical Virology, 127, 104378. https://doi.org/10.1016/j.jcv.2020.104378
- [26]. Qolipour, M., Torabipour, A., Faraji Khiavi, F., & Saki Malehi, A. (2018). Assessing Medical Tourism Services Quality Using SERVQUAL Model: A Patient's Perspective. Iranian Journal of Public Health, 47(1), 103–110.
- [27]. Ramli, A. H. (2019). Patient Service and Satisfaction Systems. Business and Entrepreneurial Review, 15(2), 189. https://doi.org/10.25105/ber.v15i2.4633
- [28]. Sankar, P., Moran, S., Merz, J. F., & Jones, N. L.
 (2003). Patient perspectives on medical confidentiality. Journal of General Internal Medicine, 18(8), 659–669. https://doi.org/10.1046/j.1525-1497.2003.20823.x
- [29]. Seng, Y. P. (1951). Historical Survey of the Development of Sampling Theories and Practice.

Journal of the Royal Statistical Society. Series A (General), 114(2), 214–231.

- [30]. Smisha, K. (2018). Measuring Brand Awareness of Customers towards Domestic and Foreign Brands of Cosmetics with Special Reference to Kerala. RESEARCH REVIEW International Journal of Multidisciplinary, 3085(04), 19–25.
- [31]. Somu, N., Kirthivasan, K., & Shankar Sriram, V. S. (2017). A rough set-based hypergraph trust measure parameter selection technique for cloud service selection. Journal of Supercomputing, 73(10), 4535– 4559. https://doi.org/10.1007/s11227-017-2032-8
- [32]. Taqdees, F., Sahahab Alam, M., & Shabbir, A. (2017).
 Hospital Healthcare Service Quality , Patient Satisfaction and Patient Loyalty : An Investigation in context of Private Healthcare Systems of Pakistan.
 International Journal of Quality & Reliability Management, 35(6), 1195–1214.
- [33]. Tateke, T., Woldie, M., & Ololo, S. (2012). Determinants of patient satisfaction with outpatient health services at public and private hospitals in Addis Ababa, Ethiopia. African Journal of Primary Health Care and Family Medicine, 4(1), 1–12. https://doi.org/10.4102/phcfm.v4i1.384
- [34]. Xanthopoulos, P., Pardalos, P. M., & Trafalis, T. B.
 (2013). Robust Data Mining. Robust Data Mining, 27– 33. https://doi.org/10.1007/978-1-4419-9878-1

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