Empirical Validation of Patient's Expectation and Perception of Service Quality in Ghanaian Hospitals: an Integrated Model Approach

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Abstract

Hospitals as organisations (whether for profit or not) are subject to the same processes of sustainability and strategic management partly as objects and victims but also as beneficiaries of sustainable business enterprises. Their position is locked within the national systems to supply the healthy human resources needed for sustainable development. No matter the time of day, hospital staff and physicians must be prepared for anything including the treatment of common colds to life-threatening diseases through to providing aid when emergency occurs such as disaster relief. Using the SERVQUAL model with the Kano model, this study aims to prioritize above all the use of various medical service technical items as an improvement directed towards hospitals' competitiveness. With the outpatient services of a hospital as the empirical case study, we first collected the service requirements of the patients and classified them using the Kano model to decide the weights of each patient's service requirements, then found out the different medical service technical items which the hospital provided to satisfy the service requirements. This paper identifies the main attributes in the healthcare as an empirics research subject for the purpose of patient satisfaction improvement. Practitioners in hospital management need to consider that the relationship between performance of attributes and patient satisfaction depends on the classification of attributes. This research also contributes to our understanding of the complexity of the healthcare service, and reveals shifts in categories over time and with patient and management experience. As competitive forces continue to pressure imitation and innovation, both in the ways a specific interactive attribute is executed as well as in the adding of new attributes, the hospital management must continuously monitor their service and patient satisfaction relationship in order to implement changes that will strengthen the relationship with hospital staff

Keywords: Expectation, Perception, Service Quality Expectation, Hospitals, Integrated Model Approach

1. Introduction

Hospitals as organisations (whether for profit or not) are subject to the same processes of sustainability and strategic management partly as objects and victims but also as beneficiaries of sustainable business enterprises. Their position is locked within the national systems to supply the healthy human resources needed for sustainable development (Alasad & Ahmad, 2003). No matter the time of day, hospital staff and physicians must be prepared for anything including the treatment of common colds to life-threatening diseases through to providing aid when emergency occurs such as disaster relief. (Cooper, 1990). With its various departments and units, effective hospital management requires high level collaboration of different professionals to provide life-saving care, operate complex equipment and handle business issues such as policy development and compliance for the same common goods (Arah, Westert, Hurst, & Klazinga, 2006). This can only be effective if there are efficiently running top-notch management tools and techniques. For this reason the way a hospital secures, deploys and utilizes resources will determine the extent to which it can successfully pursue its performance objectives. This is why hospitals must develop a bias for action, build autonomy and entrepreneurship to foster innovation and instil a management philosophy that guides everyday practices of its staff.

Hospitals must therefore be equipped to provide medical services, which are highly competent, of high quality and comprehensive (preventive, curative, somatic, psychiatric, rehabilitative with or without hospitalisation). To actualize this, hospitals need comprehensive technical equipment, highly motivated personnel, particularly well qualified and with continuing training, a management which anticipates and implements changes, a clear understanding of the need of the population and to respond to those needs, valid social economic and particularly epidemiological data and good information and communication systems.

According to (Hudak, McKeever, & Wright, 2003) of all the function of hospital, none surpasses the need to enhance the quality of hospital services to the patient. This is because it plays a decisive role in permitting the hospital unit to be efficient. Evaluation systems for the outcome of hospital services will need to be in operation. A World Health Organisation report in 2013 reveals that in many countries there is growing evidence that clinical performance in hospitals is sub-optimal. The strategies used to address this problem include quality assurance models, clinical audit and the new concept of clinical governance, in which quality is a shared managerial and clinical responsibility. These are based on the assumption that quality assurance activities and continuing professional development lead to improved quality of care (Brown, Sandoval, & Murray, 2008).

It is a social mission for the hospital systems to meet the quality needs of the individuals without excluding them on account of their beliefs or financial or other reason,

Hospitals in Ghana are not immune to the need to develop sustainable quality measures in their operations. Indeed the (Yue & Turkson, 2009) (Turkson & Gunning, 2013) (Doyle & Haran, 2001) (Offei, Sagoe, Owusu Acheaw, Doyle, & Haran, 2010) and (Doyle & Haran, 2000) has noted that the Ministry of Health (MOH) in Ghana has been concerned about quality of care, but improvements in quality have been slow partly because quality improvement activities have received inadequate priority. Poor quality of healthcare results in loss of patients, lives, revenue, material resources, time, morale, staff, recognition, trust and respect and in individual and communities' apathy towards health services, all of which contribute to lowered effectiveness and efficiency (Yue & Turkson, 2009) (Turkson & Gunning, 2013) (Doyle & Haran, 2001) (Offei, Sagoe, Owusu Acheaw, Doyle, & Haran, 2010) and (Doyle & Haran, 2000). The MOH has identified improving the quality of healthcare as one of its five key objectives of health sector reforms in Ghana. It envisages that quality of care might be improved through paying more attention to the perspectives of clients, improving the competencies and skills of providers and improving working environment by better management, provision of medical equipment and supplies and motivation of staff. Because of persistent patient complains about service quality in hospitals across the country, this study seeks to analyze service quality expectations and evaluation of patients in selected hospitals in Ghana with the view to understanding what patents priorities are.

In the past, patients went to hospitals simply for medical treatment, so that such institutions emphasized their professional medical techniques (Cheng, Yang, & Chiang, 2003).

Nevertheless, with the enhancement of living standards and increase in the public general medical knowledge and demands, patients pay more attention to their health and expect higher quality medical services, and their assessments of quality of hospitals are no longer limited to medical techniques. (You, et al., 2013) (Tang, Luo, Fang, & Zhang, 2013) (Amin & Nasharuddin, 2013) indicate that service quality, from the patients' viewpoint, requires that medical staff express respect, empathy, and concern, as well as more traditional items, such as professional skills and service attitude. In addition, patients will trust and rely on a hospital more once they experience satisfactory medical service, and will continue to go to it for future medical treatments. Nonetheless, certain differences exist in the cognition of medical service quality held by hospitals and patients (Yavas, Karatepe, & Babakus, 2013) (Pai & Chary, 2013) (Arasli, Ekiz, & Katircioglu, 2008). It is thus necessary to develop a systematic approach to find out the real requirement of patients, as this lead to greater patient's satisfaction and ultimately make the hospital more successful (Meyer, 2002). Identifying patients' opinions is critical for the evaluation of medical service systems (Polluste, Kalda, & Lember, 2000).

This study thus aims at understanding patients' requirement and classifying these into different types of quality based on the Kano and SERVQUAL model. This is in response to identified weakness in current improvised approaches developed by hospital in Ghana to measure patient satisfaction. The research is based on the patients' opinions because it can serve as references for the enhancement of medical service quality and the general improvement of hospitals. The perspective adopted in this paper contributes to our understanding of patient relationship in the healthcare and hospital management in such ways as discussed by (Beattie, Lauder, Atherton, & Murphy, 2014) (Beattie, Lauder, Atherton, & Murphy, 2014) (Coulter, Fitzpatrick, & Cornowell, 2009).

First, it extends the diagnostic benefits of the attribute approach to our understanding of hospital service quality to improve loyalty. Second, it relates to the importance of each quality attribute to the patient satisfaction so that managerial implications can be meaningfully interpreted. While this increases the complexity of the relationships, it also forces us to recognize the dynamic shaping that is occurring in the healthcare and hospital management environment (Coulter & Jenkinson, 2005) (Jenkinson, Coulter, & Bruster, 2002). The purpose of this research is focus on patient relationship management (CRM) strategies and relationship between service attributes and patient satisfaction through an integrated SERVQUAL and Kano's model on healthcare service in public hospitals (Crow, et al., 2002). This approach if successful can help to prioritise patient needs in developing hospital quality programs as being planned by the Ghana Health Services. This study presents a simple and feasible approach for hospitals to confirm the service demands of patients, to determine the improvement sequence corresponding with patients' demands under limited resources, focus on the most attractive demands and the priority items for improvement, in order to enhance competitiveness in an efficient and effective way (y González, 2005).

In summary our aim in this study is to:

a. Define service quality attributes for hospitals service in Ghana based on SERQUAL perspective through literature studies.
b. Use the Kano model to categorize the importance of these hospital quality attributes
c. Determine how their integration can help in improving service quality of hospital care service

Firstly, we discuss existing literature on healthcare quality in Ghana before expounding on the application of SERVQUAL and Kano models as service quality instruments. We then outline a sequence of methods and research techniques employed to collect data from selected hospitals in Ghana. After analysis of the data with the integrated Kano and SERVQUAL model we discuss our findings and outline future research direction.

2. Literature Review

2.1 Servqual Model

One of the most important tools that have been designed to assist in measuring the level of patient's appreciation of services is the SERVQUAL Model (Figure 1 and Figure 2) which was designed by (Zacharias, et al., 2004) (Yen, Wang, & Horng, 2011) (Yen, Wang, & Horng, 2013). Although the SERVQUAL Model was not designed to specifically measure healthcare services satisfaction, its use in understanding the service quality at healthcare centers has been profound as explained in several studies that have used it in both western and eastern countries (Andaleeb, 2001).

In other words the use of the SERVQUAL as a tool for examining patient satisfaction transcends the cultural differences in the management of service centers like hospitals, shops etc and is able to bring out common customer indices for measuring service quality and satisfaction (Weaklim, 2004) (Offei, Bannerman, & Kyeremeh, 2004). (Kennedy, Caselli, & Berry, 2011) explains that the interest in developing the SERVQUAL model became more intense after series of challenges in the application and implementation of the much popular Total Quality Management (TQM) in terms of direct measurement of satisfaction levels which customer gained from the services which organisation were providing. Further, (Kennedy, Caselli, & Berry, 2011) argues that researchers were unanimous at the time about the need to get an alternative to the TQM since customer evaluation of services is the basis for developing the strategies in the growing complexity of customers knowledge, demand and challenges of a dynamic global business environment.

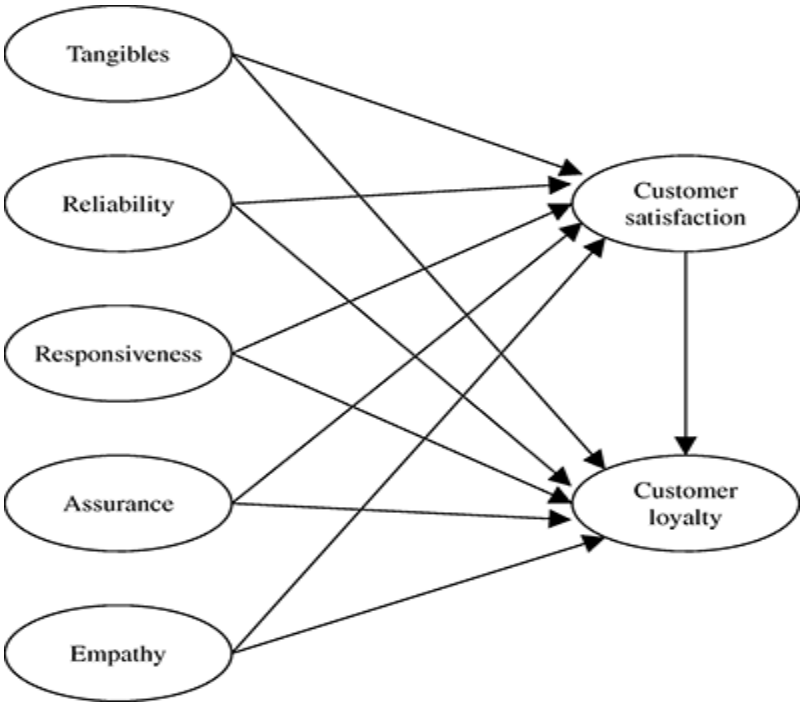


Figure 1: Elements of the SERVQUAL Model of Service Quality Model

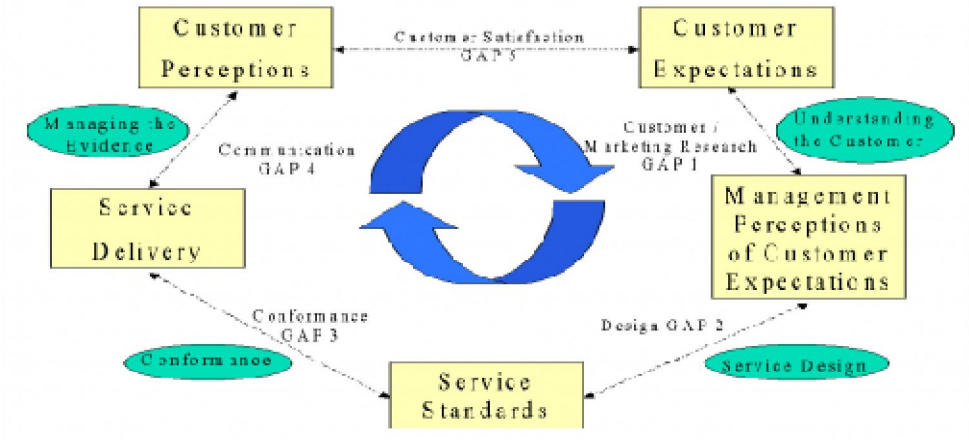


Figure 2: Operationalization of the SERVQUAL Model of Service Quality Model

LeBlanc & Nguyen (1997) indicates that the TQM could not define and prescribe specific processes and elements that needed to be measured and improved in service quality hence the importance of the SERVQUAL model. Despite the fact that (Parasuraman, Berry, & Zeitham, 1991) (Zeithaml, Berry, & Parasuraman, 2012) (Jemmasi, Strong, & Taylor, 2011) (Ahuja, Mahlawat, & Masood, 2011) and (Saleh & Chris, 1991) have substantially clarified this complexity of the TQM model, their SERVQUAL model is not without criticisms from other researchers like (Deming, 2003) who reveals a number of inherent weakness in the SERVQUAL approach to measuring service quality and customer satisfaction which they consider as equally nonspecific.

In support of the efficacy of the SERVQUAL model over the TQM, (Tweneboah & Opoku, 2008) asserts that the efficacy of the Total Quality Management is in its advocacy to train and empower employees (liberate talents), facilitate the deployment of skills within and without the entity, the building of teams to improve the coordination of functions and skills to highlight the cooperative ethics. However the two decades of absolute dependence on the TQM and the experiences derived from these years gives credence to the fact that dependence on these pillars can be very difficult to achieve in its entirety. (Asubonteng, McCleary, & Munchus, 1996) and (Pirsig, 1997) earlier identified with the criticism of the TQM by questioning the TQMs capability in terms of classification of functional attributes of service systems. Equally (Weinberg, 2005) share in the above view when he explains that the Total Quality Management proceeds from the assumption that variation in quality can be explained by features in the organisational systems but (Weinberg, 2005) thinks that this notion of service quality measurement and customer satisfaction prior to the arrival of the SERVQUAL merely moves empowerment from management to employees without giving any way by which the customers views can be solicited to make innovation more visible. The exact nature and approach of the SERVQUAL model of service quality evaluation and customer Satisfaction measurement is explained in detailed by (Parasuraman, Berry, & Zeitham, 1991).

The model first collects the views of customers on their expectation of quality performance from the firm or service provider on five main dimensions and then afterwards collects information on how they think the service provider is performing on the basis of the five main dimensions upon which they have judged the service provider. In other words the SERVQUAL model seeks to identify expectation gaps between what the customer wants of the company or service provider and what they believe the service provider is actually providing then based on the identified discrepancies or gaps, proposals are made as to where the company or service provider can make significant amendment to make service more acceptable to the customer (Parasuraman, Berry, & Zeitham, 1991). The administration of this process is also explained by (Torres & Guo, 2004) as one of the simplest as it requires the customer to fill out basic questionnaire on a five point likert scale to indicate the level of expectation and the level at which they rank the services that are being provided by the service provider.

The SERVQUAL questionnaire has five main areas of specific customer interest and under each of them specific questions are asked to find out the views of the customers. The five areas are the measurement of reliability, assurance, responsiveness, empathy and tangibility of services. (Yoon, 2004) has done detailed examination on how companies apply these five areas to understanding customer satisfaction within the hospital environment.

From studies undertaken in ten hospitals in Japan where the application of SERVQUAL is equally popular in examining customer's appreciation of service (Yoon, 2004) explain that the use of SERVQUAL to know whether patents view health services by hospital as assuring enough. The meaning of this assurance of services is to find out if the services of the hospitals are backed by adequate employees with adequate knowledge in their chosen line of duty and whether the customers think they are courteous enough when they are serving them (Krogstad, Hofoss, & Hjortdahl, 2004). This knowledge is important as it helps to find out if the patients have trust and confidence in the hospital and the services they are providing. In doing that the hospitals uses the questionnaire to solicit the opinion of patients on whether the hospital's staff (both medical and paramedical instil confidence in them to continue coming to the hospital and or whether they feel they are safe when transacting business with the hospital (Nuti, Bonini, Murate, & Vainieri, 2009). The consistency in extending courteous service and having the right knowledge to administer drugs and other prescriptions as well as answer all the questions of the staff are all important for the patents and that helps the hospital to know the service gap in patents assurance of their services.

The second area of services quality which is considered important for the satisfaction of the customer by the SERVQUAL is the empathy of services provided by the service provider.

In the hospital set up in particular, empathy in service delivery is very important for the patients considering the fact that the people need care and affection as well as attention since most sick people makes unusual demand of health professionals because of the pain they may be going through (Saltman & Bankauskaite, 2006). For this reason, SERVQUAL engages hospitals to find out from their patients whether the services which its staff are providing are caring and personalized enough because everyone comes with a different problem or challenge (Saltman & Busse, 2002). By asking question as to whether the hospital is attentive to individual patient's, operate at convenient hours, whether employees are personally interested in helping the patients, and so have their best interest at heart and whether the hospital really understand their needs, the opinion which the patients hold about the hospital becomes evident.

The next most important dimension on patient service evaluation which the SERVQUAL model helps hospital to examine is what is called the level of service reliability of the hospital in the opinion of the patient. This is to allow the patient to give his or view about the extent to which the patient views the hospital and its schedules as honest by answering questions pertaining to whether the hospital fulfils it's promises of rendering particular service and rendering it at a particular time in an accurate and dependable manner (Seghieri, Sandoval, Brown, & Nuti, 2009). Among the things which patients expect of hospitals are punctuality, consistency and honesty. They also expect hospitals to show sincere interest in solving patients' problems and always get sure the services the services they provide right the first time (Veillard, et al., 2005). Finally the extent to which the records of customers are done to be as accurate as possible is also important criteria which patients use to examine the reliability of service providers

The fourth dimension of service quality which measures service responsiveness has been experimented among healthcare service in different parts of the world by (Westaway, Rheeder, Van Zyl, & Seager, 2003). They claim that patients like all other service consumers also want promptness of service. By asking whether customer consider the hospitals employee to be precise in stating when specific services will be provided for them, how prompt these services are provided, the willingness to help the patients and the extent to which they avoid the excuse of not being too busy to respond to customers, the hospitals are able to know the mind of customer in respect of how responsive their services are to the public and then make necessary adjustments as and when they find appropriate

The fifth and the last service quality dimension in the SERVQUAL model is the conviction that the physical evidence of service delivery directly affects the customer's interest or service appreciation and satisfaction. This view is a borrowed concept from the extension of the traditional marketing mix model (4ps) to include issues pertaining to physical evidence. The analysis which (Nuti, Bonini, Murate, & Vainieri, 2009) and (Lobo, et al., 2014) makes of this is that the tangible attributes which are the appearance of hospital facilities, hospital equipment, the personnel and the materials used for communication and any other physical attributes of services used in the hospital (Seghieri, Murante, Marcacci, & Nuti, 2008). These give a psychological impact on the healing process of the individual hence must always be neat and appealing as much as possible (Seghieri, Murante, Marcacci, & Nuti, 2008).

According to (Bannerman, Offei, Acquah, & Tweneboa, 2002) the SERVQUAL model is not only interested in examining service quality from the perspective of customer but it is also helpful in aiding hospital administrator to evaluate service gaps between their or expectation and what is actually persistent. There are five of these service gaps which the SERVQUAL aid in evaluating and these include the existing difference between what hospital managers' thinks patients expects and the importance these patients attach to them, gaps relating to the difference between what hospital administrators think patients want the hospital to provide and those gaps relating to differences that exist between services that healthcare employee in hospital provide and the specifications set by hospital administration and others (Yavas, Karatepe, & Babakus, 2013) (Pai & Chary, 2013) and (Arasli, Ekiz, & Katircioglu, 2008).

2.2 KANO Model

The Kano model of service quality evaluation was designed by Noriaki Kano a University Professor partly to support or alleviate the weaknesses with the existing methods of service quality and customer satisfaction measurement encountered in the 1980s (Figure 3). The significance of the approach of (Kano, 1990) to customer satisfaction measurement that sets it apart from the others is the fact that it adopts a pyramid approach to viewing customers' experiences, needs and service expectations.

With this, (van Iwaarden, Roger Williams, & Moxham, 2009) explain that in a hospital service delivery, patients may expect the hospital to have modern and visually appealing equipments and working space, neat looking employees, neat materials and communication platforms, clean and tidy hospital, located in a convenient place (van Iwaarden, Roger Williams, & Moxham, 2009). The patients also expect to have convenient parking space, performs services within the time promised, show sincerity in solving patient's problems, perform hospital services right the first time (Kang & James, 2004). Further patients also expect hospitals to provide its services without delays, insisting on service without error, making patents feel safe in and secured in the hospital, having employees that behave properly to instills confidence in patients, (Brown, Franco, Rafeh, & Haatzell, 2010) courteous and knowledgeable employees, etc. However these may not be equally valued on the same scale hence the need to rank them hierarchically (Donabedian, 2006).

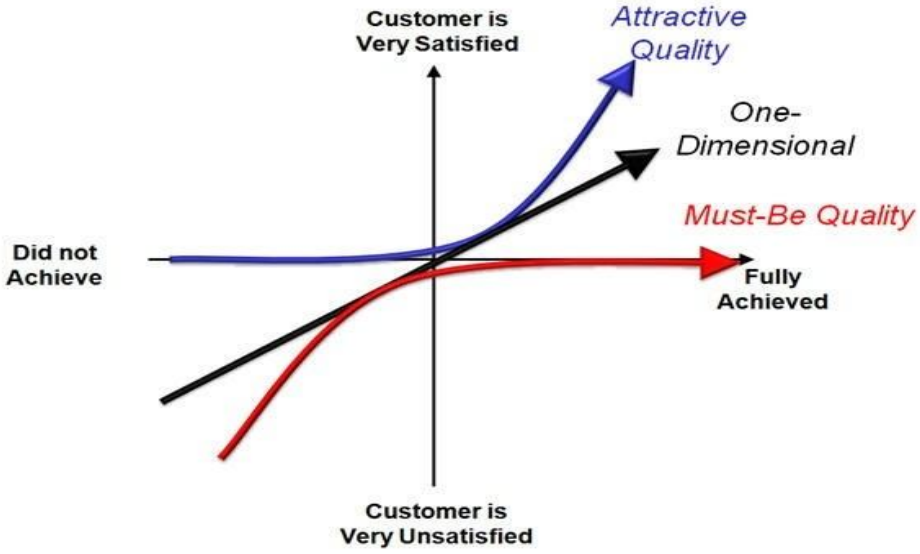


Figure 3: Kano Model

Kano agrees with Maslow (1943) that human preferences are not the same and that there are some of the things which are more important for human beings than others hence business organisation including hospitals have to focus on satisfying the most important needs or demands of customers before they get the level of satisfaction which the customers are looking for. While Maslow (1943) looks at the hierarchy of need in respect of physiological, self-actualization, safety and other needs, the case of consumer appreciation for services is classified under five major categories including the attractive service dimension, one-dimensional service dimension, must-be service dimension, indifferent service dimension and reverse service dimension.

In application, Kano's explanation of the attractive health service quality dimension (Kano, 1990) is explained further by Kano who suggest that these are the services of the hospital which bring enormous satisfaction to the customer when they are provided even though the patient do not expect the hospital to provide them. On the other hand it is the contention of (Gross & Nirel, 2008) that when they are not provided however it does not lead to dissatisfaction because it is not expected to be provided by the hospital.

Outside the health sector, (Bonacorsi, 2010) gives an example of how attractive quality attributes affect customer satisfaction by asserting that in a store situation the store provides an added thermometer to a package of milk when it is bought (Bonacorsi, 2010). In one such attractive attributes in a hospital in India, (Haran, Dovlo, & Offei, 2004) explains that new mothers are given special packages including things useful for babies in the first week of their birth and these packages are provided for the mothers as gifts when they are discharged from delivery. Since these are not expected by the mothers, they do not create any dissatisfaction if they are not given but when they are offered to them it increases their satisfaction for services rendered and can even make up for some of the things which the hospital did not get right in their sight.

On the other hand a one-dimensional quality is the service quality attribute, the performance of which brings patients greater satisfaction however in their absence the patient gets very dissatisfied considering the fact that they expect such services to be provided at all cost.

Outside the health sector (Milosevic & Bayyigit, 2009) gives a very common example of some of such factors that create this level of dissatisfaction when it does not exist. They explain that every customer of an alcoholic beverage expect the percentage content to be displayed on the bottle or container hence if the information they provide is wrong, it directly affect the satisfaction of the customer. The same is with diagnosis of a patient and prescription of an appropriate drug. If it turns out that the prescription and diagnosis were not accurate, it imposes several dissatisfaction on the service quality review of the patient and can even lead to further action to seek compensation for such deceptive services. (Babakus, Boller, Leblanc, & Nguyen, 1997) (Babakus & Mangold, 1992) and (Sureshchandar, Rajendran, & Anantharaman, 2002) has also explained that one dimensional attributes are so important that they constitutes the basis for competition in a particular sector as they bother on the most essential features of customer satisfaction which attracts patients and customers to a particular supplier (Babakus, Boller, Leblanc, & Nguyen, 1997) (Babakus & Mangold, 1992) and (Sureshchandar, Rajendran, & Anantharaman, 2002).

Kano's third dimension of services quality attribute which he considers as important is the must-be quality. These are the attributes of the service which are taken for granted by customers and patients when they are provided but if they are not provided they create dissatisfaction (Andaleeb, 2008) (Andaleeb, 2001). The customer often do not give any special recognition to its presence even though the health service provider may provide it but when it is not available, the customer will become very disappointed and may withdraw their services. Just like the purchase of a milk product in shop, it is the expectation of the customer that it will be contained in a well looking and safe package and if this is the case it add no special value and interest to the customer but if the case leaks, it becomes a problem and leads to the greatest dissatisfaction from the customer. In the health services for example (Strasser & Schweikhart, 2002) explains that patients expect that they will be kept in room that were good looking and tidy and if this is well done it does not give any extra attention to the service provider but if this is not the case the customer becomes dissatisfied with the services offered by the hospital. (Mostafa, 2006) explains that the patient get dissatisfied with the situations because they consider these attributes as basic component of the services hospitals have to provide. The same can be said of a Television without an inbuilt antenna.

The fourth service quality dimension in Kano's model is an indifferent service quality attribute. These are attributes considered neither good nor bad by the patient hence often escapes the acknowledgment (Miranda, Chamorro, Murill, & Vega, 2010). They add nothing to patient satisfaction or dissatisfaction in the event of their provision or not. The customer or patient does not consider these are essential but rather as peripheral to the actual services that are to be provided. For example the customer does not care the extent to which the service provider uses technology get good diagnoses and prescription for their disease and sickness (Myerscough, 2002). In the same way the customer is not also very much concerned about whether the bills are computer generated or are manually written the most important for them is the amount of money they are paying and the fairness of the charges they are playing (Kang & James, 2004).

The last service quality dimension explained in Kano's model is the reverse quality. For example, it refers to a level of service quality that gives negative feedback. In other words it implies the level of quality where the customer or patent considers value to have been over stretch as in the excessive use of technology in service delivery and that create discomfort for the customer or patient. The services which the provider is providing thus exceeds the most reasonably tolerable limit to the extent that it becomes useless to the customer which then creates dissatisfaction for him or her (Karassavidou, Glaveli, & Papadopoulos, 2009).

2.3 Quality of Healthcare in Ghana

According to Yue & Turkson (2009) Turkson & Gunning (2013) Doyle & Haran (2001) Offei, Sagoe, Owusu Acheaw, Doyle, & Haran (2010) and Doyle & Haran (2000) there have been efforts to research into quality of healthcare and institutionalisation of quality assurance in Ghanaian health facilities. These were initiated through a project from 1993–1996 and then 1998–1999 in the Upper West Region and some facilities in Eastern and Volta Regions. More recent studies have been conducted in other parts of the country with the assistance of Non-governmental organisations, and the World Health Organisation (Atinga, Abekah-Nkrumah, & Domfeh, 2011). However in general, Health service quality standard in Ghana is enshrined in both the code of ethics of the Ghana Health service and Patient Charter. The Code of Ethics for the Ghana Health Service (GHS, 2008) defines the general moral principles and rules of behaviour for all service personnel in the Ghana Health Service. The Service shall be manned by persons of integrity, trained to a high standard to deliver a comprehensive equitable service for the benefit of patients/clients and society as a whole.

a) All Service personnel shall be competent, dedicated, honest, and client-focused and operate within the law of the land.
b) All Health Professionals shall be registered and remain registered with their Professional Regulatory Bodies.
c) All Service personnel shall respect the Rights of patients/clients, colleagues and other persons and shall safeguard patients'/client' confidence.
d) All Service personnel shall work together as a team to best serve patients'/clients' interest, recognizing, and respecting the contributions of others within the team.
e) All Service personnel shall co-operate with the patients/clients and their families at all times.
f) No service personnel shall discriminate against patients/clients on the grounds of the nature of illness, political affiliation, occupation, disability, culture, ethnicity, language, race, age, gender religion, etc. in the course of performing their duties.
g) All Service personnel shall respect confidential information obtained in the course of their duties. They shall not disclose such information without the consent of the patient/client, or person(s) entitled to act on their behalf except where such disclosure is under the law or is necessary in the public interest.
h) All Service personnel shall treat official discussions, correspondence, or reports obtained during official duties as confidential. In situation where such disclosure is necessary, it is legally.
i) All information obtain from patients/clients is used for the prime purpose of their management. Any other use of such information is by the consent of the patient or person(s) entitled to act on his/her behalf.
j) All Service personnel shall provide information regarding patient's condition and management to patients or their accredited representatives humanely and in the manner, they can understand.
k) All Service personnel shall protect the properties of the Service including properties entrusted in their care.
l) All Service personnel shall respect the rights and abilities of disabled persons and the aged and work together to serve or safeguard their interest
m) All Service personnel shall keep their professional knowledge and skills up to date.
n) No Service personnel shall demand unauthorized fees from patients/clients.
o) No Service personnel shall accept any gift, favour, or hospitality from the patient/public, meant to exert undue influence to obtain preferential consideration in the course of their duty.
p) All Service personnel shall refrain from all acts of indiscipline including drunkenness, smoking, immorality, abuse of drugs and pilfering in the course of performing their duties.
q) All Service personnel shall avoid the use of their professional qualifications in the promotion of commercial products.
r) All Service personnel shall act in collusion with any other person for financial gain.
s) No Service facilities and resources are used for unauthorized private practice.

On the other hand the Patients Charter in Ghana (2008) states that the Ghana Health Service is for all people living in Ghana irrespective of age, sex, ethnic background, and religion. The service requires collaboration between health workers, patients/clients, and society. Thus, the attainment of optimal health care is dependent on teamwork. Health facilities must therefore provide for and respect the rights and responsibilities of patients/clients, families, health workers and other health care providers. They must be sensitive to patient's socio-cultural and religious backgrounds, age, gender and other differences as well as the needs of patients with disabilities.

The Ghana Health Service expects health care institutions to adopt the patient's charter to ensure that service personnel as well as patients/clients and their families understand their rights and responsibilities (Atinga, Abekah-Nkrumah, & Domfeh, 2011). This Charter is to protect the rights of the patient in the Ghana Health Service. It addresses the Right of the individual to an accessible, equitable, and comprehensive health care of the highest quality within the resources of the country, the respect for the patient as an individual with a right of choice in the decision of his/her health care plans and Right to protection from discrimination based on culture, ethnicity, language, religion, gender, age, and type of illness or disability (Avortri, Beke, & Abekah-Nkrumah, 2011). The rights of patients as contained in the patient's charter in Ghana are

i. The patient has the right to quality basic health care irrespective of his/her geographical location.
ii. The patient is entitled to full information on his/her condition and management and the possible risks involved except in emergencies when the patient is unable to make a decision and the need for treatment is urgent.

iii. The patient is entitled to know of alternative treatment(s) and other health care providers within the Service if these may contribute to improved outcomes.
iv. The patient has the right to know the identity of all his/her caregivers and other persons who may handle him/her including students, trainees, and ancillary workers.
v. The patient has the right to consent or decline to participate in a proposed research study on him or her. The patient may withdraw at any stage of the research project.
vi. A patient who declines to participate in or withdraws from a research project is entitled to the most effective care available.
vii. The patient has the right to privacy during consultation, examination, and treatment. In cases where it is necessary, to use the patient or his/her case notes for teaching and a conference, the consent of the patient is paramount.
viii. The patient is entitled to confidentiality of information obtained about him or her and such information shall not be disclosed to a third party without his/her consent or the person entitled to act on his/her behalf except where such information is by law or is in the public interest.
ix. The patient is entitled to all relevant information regarding policies and regulation of the health facilities that he/she attends.
x. The patients or their accredited representatives know procedures for complaints, disputes, and conflict resolution, in medical situations.
xi. Patients should know of all hospital charges, mode of payments and all forms of anticipated expenditure prior to treatment.
xii. Patients should know of all exemption facilities if any.
xiii. The patient is entitled to personal safety and reasonable security of property within the confines of the institution.
xiv. The patient has the right to a second medical opinion if he/she so desires.

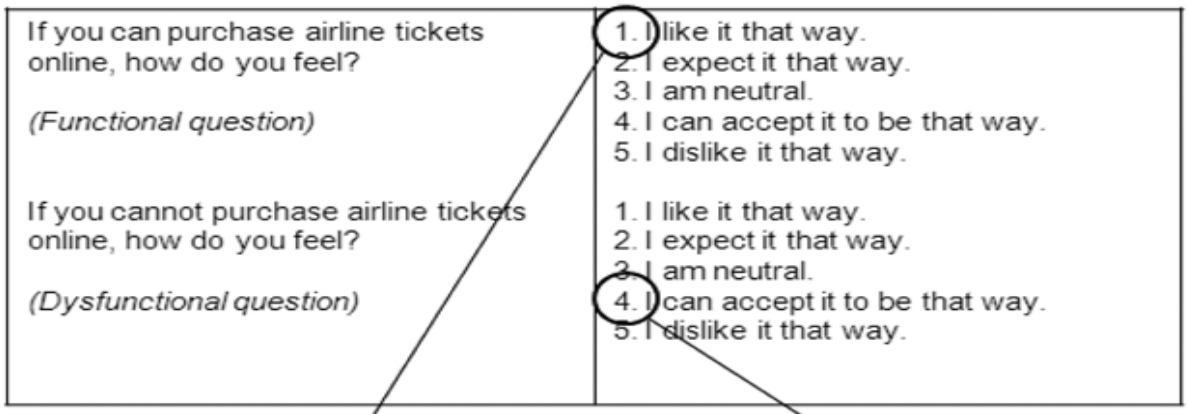
3. Materials and Methods

The research methodology was designed to take into account the main goals of this study which is to define service quality attributes for hospital service based on SERQUAL perspective through literature studie, use the Kano model to categorizing the importance of these attributes and determine how their integration can help in improving service quality of hospital care service. We determined that constructs or variables used in medical service evaluations fit the five service dimensions, and SERVQUAL has been widely used in numerous healthcare studies. The SERVQUAL instrument is reliable (Dwi & Nora, 2012) (Baki, Basfirinci, Ilker, & Cilingir, 2009) and the instrument is said to have concurrent validity (Resnick & Griffiths, 2011). The SERVQUAL approach is both a methodology as well as a method; it underpins theoretical and philosophical concepts around service quality. Its extensive use also suggests it is reliable and valid. It was designed to be adapted to measure service quality in any organization (Resnick & Griffiths, 2011). In order to measure service quality of the hospital service it was necessary to first identify the important dimensions or attribute of service quality. The result of the quality attributes from literature studies is represented by Table 1

Table 1: Dimension of SERVQUAL Model

Reliability	**Quick and appropriate staff response for patient**
	• Efficiency of service procedures and appointment system • Acting with professionalism and accurate in its billing • Medical treatment and doctor visiting as scheduled • Available and adequate visiting for patient family as scheduled • Provide adequate rest time for patient as they promise
Responsiveness	• Quick medical treatment response when patient need it • Employee give clear information and understandable • Provide good communication of the service right the first time • Nurse in the ward are never busy to respond patient request
Assurance	• Feel safe and at home while in the treatment ward • Employees are polite and friendly in serving • Friendly security staff and safe parking area • Doctors have an accurate ability to diagnose patient disease • Good communication among doctors, staff, and patients
Empathy	• Doctors and nurses are careful about treating and examining patient • Employee give patients and their family dedicated attention • No social status discrimination to the patient
Tangibles	• Physical facilities and medical instrument lay out is in place and visually appealing • Suitable temperature at patient rooms • Adequate fresh water supply at the ward • Cleanliness and adequate supplies for each ward • Clean and well maintained toilet • Employee are neat-appearing • Give the specific need of their patients including various food and beverage • Sufficient and convenient parking area

We sampled 152 representative patients from four hospitals in Kumasi namely South Suntresso Hospital, Manhyia Hospital, Kwame Nkrumah University of Science and Technology Hospital, and Kumasi South Hospital. Primary data were collected from the ward patient by using the integrated Kano and SERVQUAL questionnaire. (Kano, Nobuhiku, Fumio, & Shinichi, 1984) have suggested a specific method to collect data that involves a functional-dysfunctional form of asking an attribute-level question. The functional part is stated as: How do you feel if that dimension of that attribute is present in the hospital service; and the dysfunctional part is stated as: How do you feel if that dimension of that attribute is not present in hospital service. Respondents can answer in one of five different ways to each part of the question. The questionnaire covers the Kano scale. In this part, for every service quality attribute, patient responses were measured by two questions – one is functional and the other is dysfunctional. The first question in each pair is intended to capture the respondent‘s feeling if a product or service possesses a certain attribute, whereas the second captures the respondent‘s feeling if the product does not have that attribute. For each part of the questions, the customer selects one of five alternative answers. These five alternatives were described as ‑like; ‑must-be; ‑no feeling give up; and ‑do not like (Kano, Nobuhiku, Fumio, & Shinichi, 1984). But in the many implementations, these statements could be varied. The perceptions were then evaluated into quality dimensions on the basis of how the respondents perceived the functional and dysfunctional form of a quality attribute; shown by Figure 4. As a result, patient requirements were measured by a total of 26 questions with the Kano model.



Customer requirement		Answer to dysfunctional question				
		Like	Expect	Neutral	Accept	Dislike
Answer to functional question	Like	Q	A	A	A	O
	Expect	R	I	I	I	M
	Neutral	R	I	I	I	M
	Accept	R	I	I	I	M
	Dislike	R	R	R	R	R

C.R.	A	M	O	R	Q	I	Total	Category
1.	1						1	A
2.								
3.								
...								

Notes: A = attractive; M = must-be; O = one-dimensional; R = reverse; Q = questionable; I = indifferent

Source: According to Kano *et al*. (1984)

Figure 4: Kano Analytical Processes

4. Result and Discussion

By combining the two responses, both functional and dysfunctional, for every service quality attribute the service attributes were classified into six categories as (Kano, Nobuhiku, Fumio, & Shinichi, 1984) stated: must-be (M), one-dimensional (O), attractive (A), indifferent (I), questionable (Q) or reversal (R). The following evaluation (Table 2) explains how these service attributes have been mainly classified.

Answer to functional and dysfunctional questions were compared for every respondent and so every service attribute was assigned to the one of the six service categories. The more detail procedure is shown by Figure 4. Data processing from the questionnaire were calculated based on Kano model‘s procedure. In this research, the gender, age, and other social status were not considered. The assumption is all patients have the same behaviour for the certain healthcare service, but we realize that basically service satisfaction vary for each patient. We tabulated result of all the attributes calculated using Kano‘s model, Table 2 shows the attribute categories.

Table 2: Results of Integrated Kano-SERVQUAL Model

			O	A	M	I	R	Q	Total
Reliability	1	Quick and appropriate staff response for patient	29	66	24	33	0	0	152
	2	Efficiency of service procedures and appointment system	70*	21	45	16	0	0	152
	3	Acting with professionalism and accurate in its billing	93*	21	30	8	0	0	152
	4	Medical treatment and doctor visiting as scheduled	73*	32	32	15	0	0	152
	5	Available and adequate visiting for patient family as scheduled	18	44	13	65*	7	5	152
	6	Provide adequate rest time for patient as they promise	44*	38	27	43	0	0	152
Responsiveness	7	Quick medical treatment response when patient need it	104	12	28	8	0	0	152
	8	Employee give clear information and understandable	51	24	57	20	0	0	152
	9	Provide good communication of the service right the first time	87*	23	27	15	0	0	152
	10	Nurse on the ward never busy to respond patient request	105	19	25	3	0	0	152
Assurance	11	Feel safe and at home while in the treatment ward	68*	37	34	13	0	0	152
	12	Employees are polite and friendly in serving	17	89	38	8	0	0	152
	13	Friendly security staff and safe parking area	131	5	15	1	0	0	152
	14	Doctors have an accurate ability to diagnose patient disease	130	8	12	2	0	0	152
Empathy	15	Good communication among doctors, staff, and patients	54	22	61	15	0	0	152
	16	Doctors and nurses are careful about treating and examining patient	74*	8	57	13	0	0	152
	17	Employee give patients and their family dedicated attention	61*	26	54	11	0	0	152
	18	No social status discrimination to the patient	50	21	60	21	0	0	152
Tangibles	19	Physical facilities and medical instrument lay out is in place and visually appealing	24	33	41	54*	0	0	152
	20	Suitable temperature at patient rooms	61*	37	26	28	0	0	152
	21	Adequate fresh water supply at the ward	101	18	26	7	0	0	152
	22	Cleanliness and adequate supplies for each ward	106	22	23	1	0	0	152
	23	Clean and well maintained toilet	79*	19	45	9	0	0	152
	24	Employee are neat-appearing	31	32	48	41	0	0	152
	25	Give the specific need of their patients including various food and beverage	12	71	19	50	0	0	152
	26	Sufficient and convenient parking area	3	28	14	107	0	0	152

Each service quality attribute which were assigned by the respondents was analyzed through frequency analysis. As (Matzler & Hinterhuber, 1998) stated, the simplest method is to use frequency of answers for evaluation and interpretation goals. So, in defining the characteristic of every service attributes, the service attribute category which has the highest frequency among four categories is selected as identifier. The results of the analysis are shown in Table 3

Table 3: Summary of Results of Variables in the Dimensions

Categories	Item number	Total
Attractive	1, 12, 26	3
Must be	8, 15, 18, 24	4
One dimensional	2, 3, 4, 6, 7, 9, 10, 11, 13, 14, 16, 17, 20, 21, 22, 23	16
Indifferent	5, 19, 25	3
Reverse	-	-
Questionable	-	-
Total item		26

In Table 3, three of the total 26 service quality attributes have been categorized as –attractive. Four service quality attributes have been categorized as –must be, and sixteen of them as –one-dimensional. However, there is no service quality attribute can be categorized as –reverse and –questionable.

Tan & Pawitra (2001) Pawitra & Kay (2003) study found that none of the nineteen service quality attributes took a place in the –must be. It can be predicted that offering patients –must be or expected quality attributes will not be enough for patient satisfaction in few next day's cause of the contemporary world and the environment changing (Shen, Tan, & Xie, 2000). Hence, companies should focus on attractive quality attributes instead of must be or one-dimensional attributes in order to satisfy patients and to achieve competitive advantage (Su & Chen, 2006).

The results demonstrate areas in which the healthcare especially patient ward is close to meeting patient expectations, and areas in which it falls far short of expectations. As management goes through the service management strategy should pay close attention to quality improvement which mentions in the must be attributes. In this way the healthcare management can improve its level of quality in those areas which impact on patient perceptions of service quality. This case study illustrates also how an existing approach of SERVQUAL and Kano Model can be applied to a hospital management. As a first attempt to applying this integrative approach to a different sector and thus offering practical and applied information, it will be useful for both academicians and practitioners. Through such integration, service quality position of the hospital service management was evaluated. Then, service quality attributes of SERVQUAL were assigned to Kano categories in order to see which attributes of service quality have a strategic significance on patient satisfaction.

From a methodological perspective, it can be concluded that the ability of designing healthcare services upon patient satisfaction makes this approach a powerful tool for hospital business sector like other sectors. There are two main reasons explaining why this integrative approach applied in different sectors can create expected benefits also for the hospital service. First of all, the globalization on the world commerce and fundamental progresses on information, communication and transportation technologies have increased not only patient/ patient standard of quality service but also strategic significance of the healthcare management. This phenomenon has introduced a competency issue which does not exist before. In order to stay competitive, designing their services in according with patients expectations has become an increasingly important necessity.

In this context, this approach provides healthcare business a deep understanding of their service quality levels from patient satisfaction perspective. Also, highlighting the most important service attributes which are highly attractive for their patients, it helps the management to develop innovative ideas in both strategic and tactical levels. Secondly, using two methods in a complementary way creates some methodological and practical benefits. Integrating Kano to SERVQUAL eliminates the linearity assumption which is the main criticism of SERVQUAL and offers researchers to an opportunity of identifying specific patient expectations which can be very profitable.

Although the results of the Kano Model highlight the main patient expectations to be satisfied, it cannot present a solution about how these expectations can be satisfied. The other method should be implemented and integrated such as QFD (quality function deployment) which can overcome this limitation at this point. It successfully identifies and optimizes internal capabilities and addresses specific patient opportunities by improving organization's services design in parallel with the patient needs (Killeen, O'sullivan, Coffey, Kirwan, & Redmond, 2005). Integrating both methods is particularly successful in terms of overcoming limitations of each method. For SERVQUAL, limitations such as measuring the expectations of excellence which might not exist, weak discrimination between the dimensions and the results of gap analysis which cannot be easily generalized to the other areas can be also mentioned here (Baki, Basfirinci, Ilker, & Cilingir, 2009).

Similarly, Kano Model asks patients to state their satisfaction or dissatisfaction for the service with a hypothetical situation (Tontini & Silveira, 2007). The limitations, however, have not affected the use of the integrative model, as its advantages are far greater than its limitations. In summary, since none of the methods separately can achieve total benefits of this integrative approach and also minimal amount of adaptation is required for either method (Tan & Pawitra, 2001), this methodology can be evaluated as sufficient in response to the main goal of this study. Also, ease of applying this methodology to different sectors constitutes the practical benefit aspect and makes it desirable for healthcare business like others. In addition to the benefits above, integrative usage of both methods has also some limitations. It does not provide an optimal solution upon linear programming and forecasting which will maximize patient satisfaction.

5. Conclusion

This paper identifies the main attributes in the healthcare business to especially public hospital as an empirics research subject for the purpose of patient satisfaction improvement. Practitioners on hospital management need to consider that the relationship between performance of attributes and patient satisfaction depends on the classification of attributes. This paper analysed two methods of SERVQUAL perspective and the Kano model for patient satisfaction improvement. This study also made a contribution to our understanding of the complexity of the healthcare service. This research reveals shifts in categories over time and with patient and management experience. As competitive forces continue to pressure imitation and innovation, both in the ways a specific interactive attribute is executed as well as in the adding of new attributes, the hospital management must continuously monitor the their service and patient satisfaction relationship in order to implement changes that will strengthen the relationship and improve the loyalty. The last but not the least, the research limitations is the Kano model of patient satisfaction needs to be extended to other patient behaviour variables and also management strategic response to increase patient loyalty; which not include in this paper. The implication is the methodology employed here can be easily applied by hospital management to evaluate patient behaviours and service quality performance.

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