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A Study of inpatient service quality at Ladnan hospital

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DECLARATION

This dissertation is my original work and has not been presented for an award of a degree in any other university.

Name: Hiram Muriuki

Signed…………………………
Date ……………………………

Approval

The dissertation has been submitted for examination with my approval as the University Supervisor.

Supervisor: Dr. Nancy Njiraini

Signed…………………………
Date ……………………………
ABSTRACT

The quality of health services in many countries, especially developing and Third World countries has become a pressing issue, leading to patients always looking for a hospital with better quality of health care services. The objectives of the study were to assess patients’ service quality expectations of healthcare and their perceptions towards the quality of healthcare that they received were investigated. The objectives were addressed through undertaking a case study at Ladnan hospital, whereby SERVQUAL framework was used as a tool for measuring service quality. To achieve this aim, descriptive research design was adopted while the target population was 60 in-patients. The study applied convenience sampling in selecting the sample. Data was collected using questionnaires and analyzed using descriptive statistics and inferential statistics. SERVQUAL framework was used as a tool for analysis. The study found that Ladnan Hospital had adopted healthcare services quality dimensions: tangibility, reliability, responsiveness, assurance and empathy. It emerged that, the patients’ expectations exceeded their perceptions regarding the quality factors, and gap between patients’ expectations and perceptions was statistically significant with tangibility having the highest gap score while responsiveness and assurance had the lowest gap scores. The study recommends that Ladnan Hospital should invest massively in facilities and equipment including increasing its capacity to accommodate more patients and enhance accessibility of their services. Further, it is recommended that Ladnan Hospital management should conduct regular training and development programs for its healthcare service providers to enhance their skills and knowledge in their profession. In turn, this will improve their level of competence and effectiveness in provision of quality healthcare services. Having established that there is a statistically significant gap between customer expectation and perception of healthcare service quality, the study recommends for further studies to establish the cause of this gap.
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<tr>
<td>ENT</td>
<td>Ear Nose Throat</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<td>HDU</td>
<td>High Dependency Unit</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>ICU</td>
<td>Intensive Care Unit</td>
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<tr>
<td>KMDPB</td>
<td>Kenya Medical and Dentist Practitioners Board</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>NAM</td>
<td>National Association of Medicine</td>
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<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>NHA</td>
<td>National Health Accounts</td>
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<td>PLWHAs</td>
<td>People Living With HIV/AIDS</td>
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<td>RATER</td>
<td>Reliability, Assurance, Tangibles, Empathy and Responsiveness</td>
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<tr>
<td>SAPs</td>
<td>Structural Adjustment Programs</td>
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<td>SPSS</td>
<td>Statistical Package for Social Science</td>
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<td>SWOT</td>
<td>Strength, Weakness, Opportunities and Threats Analysis</td>
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<td>WHO</td>
<td>World Health Organization</td>
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CHAPTER ONE
INTRODUCTION

1.1 Introduction
This chapter presents the background to the study, problem definition, research objectives and questions. Additionally, the scope and significance of the study are presented in this chapter.

1.2 Background to the Study
Globally, delivery of quality services has been a major challenge facing many organizations in all industrial sectors since delivery of poor services leads to loss of competitive advantage in the target market (Jepkemboi, 2011). Thus, the need for strategic shift in senior management philosophy which encourages and promotes cultures of total employee involvement towards delivery of quality services is one of the major competitive challenges facing the banking industry (Katre, 2012). Excellent services are a profit strategy because they result in more new customers, fewer loss of customers, more insulation from price competition, and fewer mistakes requiring the reperformance of services.

Additionally, quality services sustain customers’ confidence and are essential for competitive advantage (Mäntymaa, 2013). Yet many companies are struggling to improve service, wasting money on ill-conceived service programs and undermining credibility with management rhetoric not backed up with action. Consequently, many services organizations rarely achieve this goal (Khadka & Maharjan, 2017). This thus requires the building of an organizational culture in which people are challenged to perform to their potential and are recognized and rewarded when they do since delivering excellent service is a winning strategy for all organizations.

This study was important in shedding light and contributing knowledge about patient expectations and perceptions of quality of healthcare received. Additionally, the health sector has attracted concerns in the past over access to quality healthcare services in the public sector which is a major challenge because of poor quality services, lack of modern equipment and facilities; and access to health facilities among other factors (Balimba,
Empirical evidence support that a lot of efforts needs to be done to increase access to private health facilities and realize patient’s satisfaction. It’s on this background that the study sought to assess patients’ expectations and perceptions of quality of healthcare received.

1.2.1. Status of Health Care in Kenya
Access to quality healthcare is one of the rights guaranteed in the Kenyan constitution’s Bill of Rights article 43(1) (f). The World Health Organization (WHO) definition of health is “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2003). Kenya’s population has increased from 8 million in 1960 to 46 million in 2015 (Worldbank, 2016). At the same time, there are increased efforts by employers to increase the health status of its employees by way of health insurance, health checks and medical screening of new hires. These factors coupled with increased awareness of benefits of being in good health have led to an increase in demand for quality and affordable health products. To cope with this increase, there has been a concomitant increase in investments in health care sector. Kenya National Health Accounts (NHA) of 2012-2013 show an increase in total health expenditure which includes public and private spending from 5.4% of the GDP in 2009/2010 to 6.8 % in 2012/2013.

Provision of healthcare in Kenya is through either private funding, government funding or development partners, that is, funding from foreign governments (NHA 2012-2013). The arm of the Government that runs the health infrastructure is the Executive through the Ministry of Health (MOH). MOH acts as an implementer. Apart from the MOH, the Kenya Medical and Dentist Practitioners Board (KMDPB) has been established under Cap 253 of the laws of Kenya. It licenses health facilities, medical practitioners and investigates cases of medical malpractice and consequently acts as a regulator.

1.2.2 Status of Public Health Infrastructure in Kenya
Prior to the promulgation of a new constitution in 2010, health care was centralized. MOH was mandated with hiring medical workers, building new facilities, running the existing ones, purchasing medical supplies and ensuring quality through various regulatory agencies. The various health facilities were operating, and still do operate in a
tier system from level one to level six (MOH, 2015). Level one facilities are community centers with level six being the two main referral centers namely Moi Referral and Kenyatta National Hospital (MOH, 2015). As one goes up the tier system from level one to level six, there is an increase in number of health personnel and sophistication of equipment meaning that level six facilities can handle the most serious illnesses (MOH, 2015).

Since 2010, health care has been devolved to the County Governments except for two referral hospitals. The two level six facilities are run by the National Government. MOH is still expected to provide policy guidelines and technical support to the devolved structure. The public-sector charges minimal fees through a fee sharing program reintroduced in 1990 under The Structural Adjustment Programs (SAPs) (Obare & Heidhues, 2011). Hence, they are tailored to cater for the low social economic status segment of the society. With the poverty index rate in Kenya as per the World Bank in 2005 being 45.9% of the total population, these Government hospitals serve 78% portion of the population (World Bank, 2016).

1.2.3 Status of Private Health Infrastructure in Kenya

The private sector together with mission hospitals caters for 22% of Kenya’s population health care needs (Ministry of Medical Services, 2010). Private healthcare facilities are facilities that are not managed by the government. They include for profit organizations and not for profit organizations. For profit health organizations are those that are formed with the main purpose of making a surplus which may then be distributed to their shareholders e.g. Nairobi Hospital, Meridian Medical Center. Not for profit organizations are those formed primarily to serve a social good. Their prices tend to be lower than those found in the for-profit facilities but slightly higher than those in the public sector. They include faith-based hospitals like Consolata Mission Hospital or NGOs like Marie Stopes.

The private sector is an important player in health care delivery in Kenya. Private health care financing forms the bulk of health financing at 40% of total financing, while the remaining 60% is split between developmental partners and GOK funding (Ministry of Health, 2015). In 2012, Kenya had 8,946 health facilities with 49% being in the private sector which is further split between for profit (33%) and not for profit (16%), (Ministry
of Health, 2015). Private health expenditure is expected to continue dominating total health expenditure in Kenya. The private health care structure is lopsided with most facilities concentrated in major urban centers like Nairobi, Kisumu, Eldoret and Mombasa with fewer centers in the other areas. Nairobi being the capital city has the highest number of private facilities.

These statistics show us that 22% of the population is served by 49% of the private health care facilities in Kenya. The same 22% of the population attracts the bulk of healthcare financing. This means that newer health providers are entering a market segment that is slowly getting saturated. Therefore, the newer market players must be innovative on how to attract and retain clientele. This translates to fierce competition between the players in the private sector as they try to attract clientele. As such, private hospitals need to acquire information on factors that drive customer satisfaction to allow them to be more competitive. This study is limited to private hospitals that are profit driven.

The private health care sector comprises of hospitals like Aga Khan University Hospital, Nairobi Hospital, Karen Hospital, and MP Shah. Their main facilities are in Nairobi but with satellite clinics in other urban centers and towns (Gikonyo, 2016). Of the for profit private facilities in Kenya, only Gertrude’s Hospital focuses on one market niche, which is pediatrics (Gertrudes Childrens Hospital, 2016). The rest target all genres of medicine. In the absence of a market regulator, there is limited data showing the market leader or even market share held by the different private hospitals.

It is necessary for hospital administrators to understand quality aspects of healthcare from the patient’s point of view for them to know where and how to focus their efforts of attracting patients (Gupta & Rokade, 2016). This is because patients will always compare costs to perceived quality of healthcare and they are willing to actively invest effort in acquiring information to make a cost-conscious decision on where to seek healthcare based on that information (Allen, 2013). This, in turn, should force hospitals to invest in areas that increase perceived quality. The author’s research is aimed at understanding what the patient values and is willing to pay for. This should help for profit private investors understand their customers and know which areas to invest in, so that they can get better value for their money.
1.2.4 Ladnan Hospital

Ladnan is a new general hospital situated in the Pangani area of Nairobi that has a vision to revolutionize the healthcare sector in the area and in Kenya at large. In late 2011, Ladnan Hospital was the first multi-disciplinary hospital in Pangani. As a healthcare facility, it has continued to dominate Eastland’s healthcare landscape in terms of the quality of its medical staff, the breadth of services it offers and the standard of equipment it operates. It was opened to serve the medical needs of family households in Nairobi and beyond by providing 24 hours in and outpatient facilities, maternity, theater, laboratory, pharmacy, radiology (x-ray & ultrasound), Dialysis, ICU/HDU Unit and dental services. The hospital has a competitive advantage due to its average size which gives room for personalized attention to patients. The hospital has adopted a departmentalized hospital management information system and hence is paperless which makes recording, storage and retrieval of patient data better and efficient.

With a 50-bed capacity, Ladnan Hospital can accommodate patients with a wide range of individual health requirements. It offers specialist-focused treatment in the areas reproductive health (gynaecology, obstetric) neonatal care, trauma, critical care and nephrology and many others. The hospital offers advanced levels of diagnosis and treatment, ensuring every patient receives the highest levels of international-standard healthcare. Ladnan Hospital offers specialist-based treatment in a wide variety of fields including: anaesthesiology, breast surgery, critical care, dentistry, ENT, gastroenterology, general practice, general surgery, nephrology, neurology and neurosurgery, obstetrics and gynaecology, orthopaedics, paediatrics and neonatology, physiotherapy and urology (Ladnan, 2017)

1.3 Problem Definition

The main mission of hospitals is to provide quality care services for patients and to meet their needs and expectations and therefore, fulfilling this important mission requires the quality institutionalization in hospitals. According to Nadi, Shojaee, Ghassem, Hasan, Ehsan and Farideh (2016), Hospital’s success depends on patients’ expectations, perceptions, and judgment on the quality of services provided by hospitals. Despite the increased number of hospitals and hospital activities, the improved quality of health care
services has become a priority concern for patients (Njeri, 2015). The quality of health services in many countries, especially developing and Third World countries has become a pressing issue, leading to patients always looking for a hospital with better quality of health care services. Providing sufficient information on the grounds of the customer’s perception of the service quality can help hospitals to identify the dimensions that affect the quality of health care services.

In Kenya, despite the health care reforms initiated by the government through a broad health policy National Health Sector Strategic plan (HSSP I: 1999-2004, HSSP II: 2009-2010), access to quality healthcare services in the public sector is a major challenge because of poor quality services, lack of modern equipment and facilities; and access to health facilities among other factors. This has made Kenyans seek healthcare services from the private facilities (Wamai, 2009). Even though private healthcare services are emerging as a viable solution towards quality healthcare services, studies have shown that a lot still needs to be done to increase access to private health facilities and realize patient’s satisfaction. Ndinda (2012) point out that majority of the clients visiting hospitals are satisfied with the services offered. Balimba (2015) point out that when expectation of quality of service exceeds perception of quality of service received, customers aren’t satisfied.

Limited research has been done in Kenya to assess expectations and perceptions of quality of service more so in the health sector (Njeri, 2015). These researches include Ndinda (2012) who investigated clients’ satisfaction with HIV/AIDS care services offered at the comprehensive care centre Machakos district hospital. Thyaka, Ochieng and Muoki (2016) investigated factors affecting provision of quality service in the public health sector using a case of Nyahururu District Hospital. This study sought to investigate patient expectations when seeking healthcare and how they perceive the quality of healthcare being given at Ladnan Hospital. Ladnan Hospital has struggled to attract patients beyond its Pangani neighborhood. This is, despite the infrastructural investments done in terms of machines and services. It has struggled to effectively utilize its bed capacity. Through this study, administrators at Ladnan and other hospitals, both private
and public, would understand the perceptions towards quality of healthcare being given in the hospital and thus aligned these perceptions to the expectation of the patients.

1.4 Research Objectives

1.4.1 Main Objective
The general objective of the study was to assess inpatient service quality at Ladnan Hospital.

1.4.2 Specific Objective
The objectives of the study are to:

i. To assess patients’ expectations of the quality of inpatient healthcare at Ladnan Hospital.

ii. To assess patients’ perceptions of the quality of inpatient healthcare received at Ladnan Hospital.

1.5 Research Questions
The research questions below were used to achieve the research objectives:

i. What are patient expectations of the quality of inpatient healthcare at Ladnan Hospital?

ii. What are the perceptions of patients of the quality of inpatient healthcare received at Ladnan Hospital?

1.6 Scope of the Study
The study was conducted at Ladnan Hospital in Nairobi County located in Nairobi County, Pangani area, with inpatient facility offering primary and tertiary healthcare services. The primary focus of the study was to establish the patient expectations and perceptions of inpatient health care service at the hospital and their effect on patient satisfaction. The service quality deviances were examined through assessing patients’ expectations and perceptions of the quality of healthcare at the Hospital. The gaps were then established through determining the deviances between patients’ expectation and perception of healthcare service quality. Recommendations were then derived from the
study, featuring strategies for improvement of service quality. The time scope of the study was one year.

1.7 Significance of the Study

The findings of the research are useful to:

The Ladnan management team as it offers a better understanding of their patients’ expectations, perceptions about the quality of healthcare received, and the existing deviances. Once they have understood these expectations, they would be able to better align their services to match up to what their patients demand for. This might lead to higher patient satisfaction, higher patient retention and loyalty with concomitant increase in market share and revenue. Additionally, the proposed strategies for improvement of service quality inform administrators of Ladnan Hospital approaches to use in improving the quality of services.

Policy formulators in the Ministry of Health have got data driven findings on patients’ expectations and the perceptions they have about the quality of healthcare. They would use this information to advise players in the healthcare sector with the aim of enhancing health care quality. Further, they would use the findings on proposed strategies for improvement of service quality, to develop policies and frameworks that support implementation of such strategies.

The academic community understands patient expectations and perceptions of inpatient health care service in the health sector in Kenya. This research increases the body of knowledge regarding how patients are developing world view quality and if there are any differences that distort perceptions.

Capital investments are always limited. The results of this study advise investors and financiers on how to use their limited resources to increase quality of healthcare. This would lead to greater patient loyalty, increased patient retention and increase in revenues.

The study contributes to the Kaizen theory of continuous improvement through showing the link between continuous improvement theory and service quality healthcare.
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CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

In this case, the chapter reviews existing theories, models on the topic, and relates it to empirical evidence in either support or dispute of the theories. Moreover, the chapter focuses on the existing literature gaps that the proposed study seeks to fill. Additionally, the chapter outlines the proposed study conceptual framework and the proposed independent variables in the study. To enhance clarity, the chapter is divided into empirical review, conceptual framework and theoretical review.

2.1 Theoretical Review

The service delivery concept falls within the parameters of quality management. In organizations, this falls under the quality management concepts. Therefore, theories under this concept equally affect the quality service delivery concept across the industries, health sector inclusive. Among the common theories and models that influence on service delivery quality in the health sector includes the continuous improvement and SERVQUAL Service Quality Model. In this concept, scholars such as Juran and Deming come into play. These two are recognized as the fathers of total quality management concepts, theories and models (Brown & Duguid, 2007).

2.1.1 Kaizen Theory

Philosophy of continuous improvement entails creating constancy of purpose toward improvement of product and service, with the aim to become competitive; eliminating the need for inspection on a mass basis by building quality into the product/services in the first place; improving constantly the system of service to improve quality and productivity (Choudhury, 2013). One approach to continuous, incremental improvement is called kaizen. Kaizen is a long-term approach to work that systematically seeks to achieve small, incremental changes in processes to improve efficiency and quality. Kaizen is based on the philosophical belief that everything can be improved: Some
organizations look at a process and see that it's running fine; Organizations that follow the principle of Kaizen see a process that can be improved. These incremental changes add up to substantial changes over the longer term, without having to go through any radical innovation. Continuous Improvement links with Kaizen theory in providing approaches for identifying the gaps and inefficiencies and everyone, at every level in the organization, suggests where improvement can take place (Choudhury, 2013).

The Kaizen Theory applies for organizational change in dynamically changing operating and marketing environment. In this case, for an organization to remain competitive enough in the market and immediate environment, it should continuously re-evaluate its systems and subsequently develop appropriate strategies to mitigate the changes. The continuous improvement process is hedged on the principle of organizational efficiency. In this case, the concept holds that for an enterprise to remain competitive, it must continuously enhance its efficiency (Sahai & Graupner, 2005). Through efficiency, organizations reduce on costs of production and service provision that in turn translates into increased profit margins. Therefore, organizations that invest in the continuous improvement process often achieve efficiency and thus increased quality delivery. In this regard, the health sector, ought to adopt the continuous improvement process in its service delivery system in this case, system reorganization and employee training should be implemented to enhance quality service delivery. However, appropriate appraisal methods remain a challenge in this concept.

Appraisal involves the evaluation of the current organizational resources through strength, weakness, opportunities and threats (SWOT) analysis. Upon this evaluation, the organizational resources are profiles based on their strengths and contribution towards the achievement of the organizational goals in providing quality services to the, market. Consequently, those established to contribute towards organizations success in service delivery are retained. However, the weak systems are reorganized with the inappropriate and uneconomical ones chucked off. With respect to the human resource, the appraisal process presents recommendations on alternatives to effect changes in the process. An
application of this in the health sector would enhance the delivery of quality services. In this case, the health sector would improve their systems continuously.

The continuous improvement faces challenges in its execution. In this case, the concept relies heavily on accurate and comprehensive appraisal processes. Unfortunately, much theory has not been developed to outline models to emulate while conducting appraisal processes. Therefore, this necessitates the need for a study to remodel this concept and subsequently introduce new literature into the theory on methods of appraising the health sector to ensure quality service delivery (Kazmi & Kazmi, 2008). The current study used the Kaizen theory in enhancing quality service delivery in the health sector. Additionally, continuous improvement theory is linked to SERVQUAL Service Quality Model as it advocates for the improvement of service quality, depending on how well the gaps are identified by SERVQUAL Service Quality Model. The continuous cycle of Kaizen activity has seven phases which include identifying an opportunity, analyzing the process, developing an optimal solution, implement the solution, studying the results, standardizing the solution and planning for the future (Choudhury, 2013). Adoption of Kaizen theory link to the objectives as they cover improvement in number of areas including quality, that is making the service, work environment, practice and processes better; Delivery, that is cutting delivery time, movement and non-value-added activities.

2.1.2 Glied Service Quality Model
There are two main models of service quality, which include: Service Quality Model of Glied, (2000) which indicates that the expectations of the customer depend on the five determinants market communication, image, word of mouth, customer needs and customer learning. Experiences depend on the technical quality (what/outcome) and the functional quality (how/process), which is filtered through the image (who). Both expectations and experiences can create a perception gap (Glied, 2000). In view of this, the Service Quality Model of Glied related to the study purpose of the study by identifying a perception gap which is established through establishing the difference between patients’ expectations and experiences. The Glied Service Quality Model further presents determinants on which the expectations of the customer depend on. Such
determinants are incorporated and the SERVQUAL Service Quality Model which anchors this study.

2.1.3 SERVQUAL Service Quality Model

The SERVQUAL service quality model was developed by a group of American authors, Parasuraman, Zeithaml and Berry, in 1988. Since then, SERVQUAL model has been widely used in assessing functional aspects of service quality. The purpose of SERVQUAL model is to assess quality of services based on client perception. It highlights the main components of high quality service. The SERVQUAL authors originally identified ten elements of service quality, but in later work, these were collapsed into five factors - reliability, assurance, tangibles, empathy and responsiveness that create the acronym RATER. RATER scale assesses; Reliability- consistency, accurate and on time delivery of the service; Assurance- developed from knowledge, skills and credibility of staff; Tangibles- physical facilities, appearance of personnel, equipment; Empathy- degree of caring offered to customers; and Responsiveness- willingness to help customers and provide prompt service.

The SERVQUAL model was adopted in this study as a tool for measuring service quality. Its adoption was important as it helped in exploring study questions for measuring customers’ perceptions and expectations regarding service quality. The original SERVQUAL scale was applied to the banking sector, telecommunications. It has then been modified and used to assess multiple service sectors including health care. SERVQUAL Model to the study objectives as it provides the dimensions for measuring service quality. Such dimensions were used is assessment of the patients’ perception and expectations on quality of factors. The dimensions of include reliability, assurance, tangibles, empathy and responsiveness.

This model relates to the study because the study aimed at investigating services quality, adopting the SERVQUAL model as a tool for measuring service quality. Since patients are often unable to accurately assess the technical quality of a health care service, functional quality is usually the primary determinant of patients' quality perceptions (Kovner and Smits 1978; Donabedian 1980, 1982) as quoted by (Babakus & Mangold, 1992). There is a growing evidence to suggest that this perceived quality (functional
quality) is the single most important variable influencing consumers' value perceptions which in turn, affect consumers' intentions to purchase products or services, Bolton and Drew 1988; Zeithaml 1988, as quoted by (Babakus & Mangold, 1992). The original scale was measured on 7-point Likert scale ranging from strongly agree to strongly disagree. Service scoring is then done by subtracting expectation score from perception score. Peter Drucker, widely regarded as the father of modern management, has defined quality as "Quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for" (Drucker, 2009). In following with this thinking, the author has opted to use the SERVQUAL as a tool to assess service quality at healthcare centers. Additionally, given that the study aimed to establish the service quality, this is the difference between customer expectation and perception as it is being received by the customer, then SERVQUAL model was very relevant as it provided the dimensions for measuring these aspects, hence leading to achievement of the study objective.

2.2 Empirical Review

2.2.1 The Nature of Services

A service is an act or performance one party can offer to another that is essentially intangible and does not result in ownership of anything (Kotler & Keller, 2016). The service component can be a minor or a major part of the offering by a company. As such, there are categories of service mix. In the first group are pure tangible goods. This group has almost no service component attached to the good. The second group has tangible goods with the accompanying service, example, a car. In this group, there are some services that might be expected with the good in the form of after sale services. The third group is hybrid offerings where the service and good are weighted by consumers in equal measure for example coffee at Java Coffee House where if either the coffee or the service is terrible, then consumer dissatisfaction arises. The fourth group has major service items, like flying, where the accompanying good might be deemed to be a small component. The good in this scenario, is in-flight meals or in-flight entertainment. Lastly, there are pure services e.g. physiotherapy or massage by a masseuse (Kotler & Keller, 2016).

Consumers find it hard to judge the quality of service offerings, especially if the service has many technical components. As such, there exists a continuum in ability to judge
services with most goods being on one side of the spectrum, with high search and easy to evaluate characteristics and services being on the other extreme, being high in credence and hard to evaluate characteristics e.g. auto repair or medical diagnosis (Zeithaml, 1981). As consumers move from the spectrum of easy to evaluate to the spectrum of difficult to evaluate, they realize that on the extreme of hard to evaluate, one cannot adequately judge on technical aspects of how good a service is even after receiving it. As such, consumers form mental cues to judge that service e.g. medical services, by what they see or by how they feel. These characteristics’ might not be exactly what the service providers have in mind when developing their service models (Kotler & Keller, 2016). Wanjau, Muiruri and Ayodo (2012), while studying factors affecting provision of service quality in the public health sector using a case of Kenyatta hospital, established that in healthcare industry, patients’ encounters played a crucial role in the assessment of the type of health services provided by a facility. They further revealed that patients rated services as improved or better given the circumstances or conditions in which it has been provided. The purpose of the study was to shed more light to the hospitals management on their customers judgement of their service.

2.2.2 Distinctive Characteristics of Services

Metrics used to measure quality of goods sector are difficult to replicate in the service sector and not all apply suitably. This is because services are intangible, heterogeneous and inseparable (Parasuraman, Zeithaml & Berry, 1985). Their intangibility means that a service, unlike a good, cannot be tested before sale to the public. Due to this intangibility, it is a challenge for a firm to objectively assess how consumers perceive their services and evaluate service quality (Zeithaml, 1981; Babakus & Mangold, 1992).

Services are also heterogeneous meaning that no service is exactly like another. Goods can be homogenous in the sense that dimensions can be applied e.g. weight, height or length to ensure uniformity. However, in the service sector, each experience is unique with different intervening factors to ensure that each service is different. No matter how similar the experience is intended to be, what the consumer ultimately encounters might be different from the intentions of the firm. (Zeithaml, Parasuraman, & Leonard, 1985).
Third, production and consumption of the service occurs simultaneously, and the two processes are not inseparable. Service production does not occur in a factory for it to be tested before consumption by the consumer (Parasuraman, Zeithaml & Berry, 1985). The consumer, especially in labour intensive processes, also plays a role in the service production and delivery e.g. getting a haircut where the consumer defines his expectations (Parasuraman, Zeithaml & Berry, 1985). As a result, the consumer plays a role on service quality in this last scenario.

2.2.3 Service Quality in the Healthcare Sector

Quality can be technical or functional (Kang & James, 2004). Technical quality refers to the scientific application of the service while functional quality refers to the patient perception on degree of quality (Kang & James, 2004). These two aspects can differ depending on patient perceptions. One client may not enjoy having to produce a stool sample necessary for his diagnostics ultimately lowering his customer experience. But medical standards demand of the same. Hence for this client, functional quality has been lowered while technical quality remains high. Technical quality has been defined by The National Association of Medicine (NAM) formerly known as Institute of Medicine as: “The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (National Academy of Science, 2013).

2.2.3.1 Analysis of Technical Quality in the Healthcare Sector

Avedis Donabedian in 1996 came up with a framework of analyzing technical quality in his paper “Evaluating the quality of medical care.” As a preface to his analysis of methodologies used in health services research, Donabedian identified the three dimensions that can be used to assess quality of care. These are structure, processes and outcome (Donabedian, 1966). They would later become the core divisions of the Donabedian model. Structure basically relates to all the factors that encompass the healthcare delivery system.

It includes but not limited to physical facility, equipment, buildings, human resources, organizational characteristics, staff training and attitude, amenities (Donabedian, 1966). Process mainly includes the technical aspects of healthcare delivery system and includes
diagnosis, treatment, preventive care and patient education carried out, follow up, counseling quality (Donabedian, 1966). Outcome relates to the effect of the healthcare process to individuals, and populations regarding degree of satisfaction, change in health status, behavior and knowledge, client perception of quality (Donabedian, 1966).

Other qualities of care frameworks that can have been used include the quality of care initiative developed by the World Health Organization that uses the following parameters; Efficient- delivering healthcare while maximizing resources and minimizing waste (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006); Effectiveness- offer health services that take care of the largest healthcare problem affecting the most vulnerable part of the population (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006); Equity- health care that doesn’t differ in quality because of race, tribe, gender or political affiliations (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006); Accessible- health care that is timely, geographically reasonable and where use of skills and resources are appropriate to the need (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006); Acceptable- delivering health care that takes into account individual needs and adapting it to the culture and society expectations (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006); Safe- delivering health care which minimizes risk to the user while maximizing benefits (Bengoa, Key, Leatherman, Massoud, & Saturno, 2006). Donabedian model however, continues to be the dominant model for assessing technical aspects of health care.

Other service quality dimensions include tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, Zeithaml & Berry, 1988). The responsiveness dimension reflects a service firm’s commitment to provide its services in a timely manner. It concerns the willingness and/or readiness of employees to provide a service. The reliability dimension reflects the consistency and dependability of a firm’s performance. The tangibles dimension compares consumer expectations and the firm’s performance regarding the firm’s ability to manage its tangibles. A firm’s tangibles consist of a wide variety of objects such as carpeting, desks, lighting, wall colors, brochures, daily correspondence, and the appearance of the firm’s personnel. The assurance dimension addresses the competence of the firm, the courtesy it extends its customers, and the
security of its operations. Competence pertains to the firm’s knowledge and skill in performing its service. Empathy is the ability to experience another’s feelings as one’s own. Empathetic firms have not lost touch with what it is like to be a customer of their own firm (Parasuraman, Zeithaml & Berry, 1988).

2.2.3.2 Patient Expectations’ and Perceptions’ of Inpatient Health Care Service
A study by Nadi, Shojaae, Ghassem, Hasan, Ehsan and Farideh (2016) sought to assess the patients’ perceptions and expectations from the quality of inpatient health care in Vali-Asr hospital, Ghaemshahr, and Imam Khomeini and Shafa Hospitals, Sari. A descriptive – analytical methodology was used. The data was gathered using standard SERVQUAL questionnaire and analyzed using SPSS software. The findings of the study were that patients’ expectations had not been met in any of the examined dimensions and their consent has not been achieved.

Hekmatpour, Sorani, Farazi, Fallahi and Lashgarara (2012) did a study on quality of health care in Arak hospitals and showed there are significant differences among all dimensions of patients’ expectations and perceptions from service quality and patients’ perception of quality in none of the dimensions was consistent with their expectations. It means that all hospitals failed to meet patients’ expectations in any of the quality dimensions. Moreover, the overall rate of perceived service quality does not correspond to patients’ average expectations. However, the study findings established that the greatest quality gap was related to access to health care dimension and the lowest gap was relevant to service assurance.

Berhane and Enquasellassie (2016) sought to establish patient expectations and their satisfaction in the context of public hospitals. Data was collected regarding pre-consultation expectations and post consultation experiences of adult patients attending nine public hospitals. A systematic random sampling method was used where every fifth patient attending an outpatient department was selected. The study findings established that there is a significant difference between pre-consultation expectation and post-consultation experience. The conclusion of the study was that post-consultation experience impacts patient satisfaction. Health care service providers should emphasize the actual experience of consultation.
Ndinda (2012) sought to establish clients’ satisfaction with HIV/AIDS care services offered at the comprehensive care center Machakos District Hospital, Kenya. The study adopted descriptive cross-sectional approach that mainly targeted PLWHAs in Machakos District. Data was collected through an interview schedule, key informant interviews and an observation guide. SPSS version 15 was used for analysis and inferential statistics used to test hypothesis and explain relationships. The results revealed that majority of the clients in the sample reported lack of satisfaction with the services offered at the center.

Faris (2014) argue that the existing interpersonal relationship between doctors and patient was poor leading to high deviations between the expected and perceived empathy in hospitals. This argument is advanced by Mohebifar, Hasani, Barikani and Rafiei (2016) who argue that there exists negative gap in all dimensions of quality in many hospitals implying that quality improvement is necessary in all dimensions. Further, they argue that in all hospitals the minimum gap between patients’ perceptions and expectations is mostly observed in the responsiveness dimension. This is contrary to Lim and Tang (2000) who achieved completely different results. Hekmatpour, Sorani, Farazi, Fallahi and Lashgarara (2012) reported that the lowest gap belonged to assurance. Gole (2015) states that responsiveness is important since customers feel providers are responsive to their requests not just emergencies, but everyday responses to dimensions. Additionally, Tanomsakyut (2011) argue that tangibility implies that a consumer’s expectations of quality are often based on physical evidence. Kang and James (2004), also add that customers have high expectations of receiving personalized, flexible and adjustable services to suit their needs. Zarei et al. (2012) studied service quality in the private hospitals of Iran from the patients’ perspective and established that tangibility has the highest expectations. Devi and Muthuswamy (2016) investigated service quality perception in multispecialty hospitals in India. The results established that reliability and responsiveness were the three most important dimensions of hospital service quality perceived by patients.

2.3 Conceptual Framework

Conceptual framework is a systematic presentation which identifies the variables that when put together explain the issue of concern. The conceptual framework is therefore
the set of broad ideas used to explain the relationship between the independent variables (factors) and the dependent variables (outcome). The conceptual model is derived SERVQUAL model which was used as a tool/framework for analyzing the objectives at hand. Five RATER elements namely reliability, assurance, tangibles, empathy and responsiveness were adopted in this study. The use of these variables was informed by the scope of the study which focused on measuring service quality. Having been supported by the past researches as reliable in measuring service quality, these RATER elements derived from SERVQUAL model were considered for use in this study. SERVQUAL model was relevant to this study as it forms basis for evaluation of service quality using RATER elements. The dependent variable of the study was customer satisfaction.

Figure 2.1: Conceptual Framework
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction
Research methodology is the process used to collect information and data for making informed decisions. The methodology may include publication research, interviews research, interviews, surveys and other research techniques, and could include both present and historical information (Saunders, 2011). The chapter covers the research design that was used to answer the research questions. The subheadings discussed in this chapter include the target population, sample size, sampling procedures, research instrument, data collection procedures and analysis.

3.1 Research Design
Research design is a framework of how data will be gathered and analyzed to answer research questions and meet the research objectives (Saunders, Lewis, & Thornhill, 2012). The two main functions of research design are: first, it involves the development of logistical requirements and procedures required to undertake a study. Secondly, it focuses on the importance of quality in the procedures used to ensure objectivity, validity and accuracy. Thus, the research design enables the researcher to conceptualize plans of operation, to undertake the various procedures and tasks required for the completion of the research study.

Descriptive research design was utilized to establish the link between quality factors and patients’ satisfaction at Ladnan Hospital. Descriptive statistics was applied in establishing the extent of adoption of quality factors. The research design was applied to assist in addressing the research questions which were anchored by the conceptual framework as depicted in Figure 2.1. A quantitative approach was adopted with the help of structured questionnaires. This technique was helpful in deductive reasoning.

3.2 Population and Sampling
3.2.1 Target Population
Bryman and Bell (2007) defines population as the universe or units from which the sample will be selected. Mugenda and Mugenda (2003) describe population as an entire
group of individuals, objects or events that have common characteristic that are observable. A population is “full set of cases from which a sample is taken” (Saunders, Lewis, & Thornhill, 2012). The target population for this study involved patients at Ladnan Hospital. The hospital attended an average of 720 in-patients annually. In-patients were chosen because they accessed services for a longer duration of time and thus were in a better position to give a more detailed and consistent view concerning the healthcare services based on the SERVQUAL parameters. The study population was a set of patients served in one month. This translated to an average of 60 in-patients per month. This group of respondents was perceived to be appropriate in providing reliable and accurate information about the quality of healthcare services provided by health facility.

3.3.1.1 Inclusion Criteria
The respondents were patients above 18 years old that sought health care services and who were able and willing to give informed consent. For patients who had less than 18 years old, the respondents were the guardian who had made the decision to go to Ladnan. This was important in capturing expectations and perceptions that will inform the pediatrics department where the patient was not necessarily the decision maker or the one that held the power to pay.

3.3.1.2 Exclusion Criteria
Excluded were patients who were unable to give informed consent either due to their nature of illness or who were unwilling to participate in the study.

3.2.2 Sample Size
Sampling refers to selecting individuals from a population whose characteristics were a representative of the characteristics of the population (Saunders, Lewis, & Thornhill, 2012). A sample refers to a subset of a population. It can also be referred to as the technique or procedure adopted in selecting a sample. To determine the sample size, Slovin’s formula was used where;

\[ n = \frac{N}{1 + Ne^2} \]

Where n= sample size, N is the population size, e is the margin of error. The author used a 95% confidence level this gave a margin of error of 0.05. Hence N= 60, e= 0.05.
\[
\frac{60}{1 + 60 \times 0.05^2} = 52
\]

Consequently, a sample size of 52 was obtained.

### 3.3.2.1 Sampling Procedure

As it was difficult to trace all the patients attended to in the previous year, the researcher opted to create a sample from those who sought health care. As such, convenience sampling was deemed to be the most appropriate (Saunders, Lewis, & Thornhill, 2012). This was applied by identifying and interviewing daily, patients who were due for discharge on that day. The questionnaire was then administered to them.

### 3.3 Data Collection Methods

#### 3.3.1 Data Collection Instrument

The study used a questionnaire to collect primary data. A questionnaire refers to data collection method where everyone responds to the same question in a predetermined order (Saunders, Lewis & Thornhill, 2012). A questionnaire was useful since it allowed the researcher to collect huge amounts of information in a sample. It was cheaper and easy to administer. An adopted SERVQUAL scale was used as a tool for measuring service quality. The SERVQUAL scale has been used to assess service quality in various service sectors including banking, telecommunications (Johnson & Sirikit, 2002), education (Oliveira & Ferreira, 2009) and health (Balimba, 2015).

It was modified from the original SERVQUAL scale used by Parasuraman et al. (1985) to fit the health care context (Balimba, 2015). It had two sections. The first section captured the expectations of an excellent facility and the second section captured the perceptions the patients having been attended to in Ladnan Hospital. The questionnaire contained 22 questions based on the SERVQUAL attributes derived from the RATER scale. The format to respond was a five-point Likert scale.
3.3.2 Data Collection Processes

Data collection procedures are the formative steps in which the data collection method will take place (Pawar, 2004). The questionnaire items were made up of structured questions. The researcher used research assistants who distributed the questionnaires. They underwent training before research commenced. Data collection was carried out at the ward level. The patients were approached, and study objectives were carefully explained to them. If they agreed, consent was signed then research assistants carefully and confidentially administered the questionnaires.

3.3.3 Piloting of the Instruments

To guarantee effectiveness of the questions, pretesting is vital for the development of good questionnaires. Questionnaire pre-testing refers to the assessment of questions and instruments before beginning any study to improve the quality of questions before commencing the study (Cooper & Schindler, 2008). Pre-tests assist in finding ways to increase the interest of participants, discover question content and sequencing problems, and improve the overall quality of the questionnaire. Before carrying out the main study, a pilot study was conducted. In accordance to Cooper and Schindler (2008), the use of pilot studies is specifically for establishing the validity and reliability of the research instruments. The researcher carried out a pilot study with ten patients. The result obtained from the pilot study are presented in Table 3.1.

Table 3.1: Reliability Statistics

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach's Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer expectation of quality healthcare</td>
<td>.768</td>
<td>22</td>
</tr>
<tr>
<td>Customers perception of healthcare quality</td>
<td>.786</td>
<td>22</td>
</tr>
</tbody>
</table>

The results above showed that both items on customer expectation of quality healthcare and customers perception of healthcare quality had Cronbach alpha which exceeded 0.7, that is 0.768 and 0.786.
3.4 Data Analysis
Data analysis can be defined as the process of computing various summaries and values from a collection of data (Berthold & Hand, 2003). Prior to data analysis, the successfully returned questionnaires were checked for consistency and completeness. The data collected was then cleaned, sorted and coded to ensure that the responses were grouped as per the research questions. Data analysis methods employed involved quantitative procedures. Quantitative data was analyzed using descriptive statistical methods such as means and frequencies.

Descriptive statistics was utilized for research questions giving quantitative data. Statistical Package for Social Science (SPSS) version 23 was used to generate summarized reports in the form of percentages, standard deviation and mean which was presented in tables and charts.

3.5 Research Quality
The researcher ensured research quality by establishing the validity and reliability of the research instrument used in this study.

3.5.1 Validity of the Research Instruments
Cooper & Schindler (2008) validity is the degree to which the instrument measures the constructs under investigation. There are three kinds of validity tests; construct validity test, content validity tests and criterion validity tests. The study used content validity because it measured the degree to which the sample of the items represented the content that the test was designed to measure. Validity was ensured by scrutiny of the research questions in the questionnaire by the research supervisor.

3.5.2 Reliability of the Research Instruments
Kothari (2004) defines instrument reliability as the ability of measuring instrument to provide consistent results. It is the measure to which a research instrument gives consistent results after repeated trials. After administering the questionnaires, Cronbach’s test was used to assess the reliability of the use of the questionnaires. Cronbach’s alpha ranges from \( r = 0 \) to 1, when \( r = 0.7 \) or greater the data collection tool is sufficiently reliable. The results of reliability analysis are presented in Table 3.1.
3.6 Ethical Issues in Research

Kothari (2007) defines ethics as norms governing human conducts, which have significant impact on human welfare. Research must be designed in ways that participants do not suffer physical harm, discomfort, pain, harassment or loss of privacy. They further add that, to safeguard these, the researcher should explain to the respondents about the benefits of the research study, explain to the participant their rights and protections, and finally the researcher should obtain respondent’s consent.

The researcher conformed to the ethical guidelines and procedures. The researcher was transparent in reporting data, results, methods and procedures. Confidentiality of the patients and any other personal information was assured. The researcher sought informed consent from the participants before conducting the interviews and data collection. Objectivity of the researcher was observed during the interview, data analysis and interpretation to eliminate any form of bias or self-deception. Respect for intellectual property was guaranteed by giving proper acknowledgement or credit for all contributions to this study and would not engage in plagiarism.
CHAPTER FOUR
PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction
This chapter contains details of presentation of data analysis, results and findings. Results presentation is organized based on the specific objectives of the study. Descriptive analysis conducted includes; mean frequencies and percentages. The analyzed data are presented in frequency and percentage tables; this enhances easier interpretation and understanding of the research findings.

4.2 Return Rate
The total numbers of questionnaires issued were 52. Out of the questionnaires issued only 46 questionnaires were properly filled and returned which represented a response rate of 88.5%. According to Mugenda and Mugenda (2003) a response rate of over 50% is adequate. Nachmias (2009) indicates that a response rate of more than 70% of a sample is enough to make generalization. Based on this assertion, the response rate was deemed adequate for making inferences.

![Response rate graph]

Figure 4.1: Response rate

4.3 General Information
This section discusses demographic information of the respondents and the hospital facility. It covers the department, the number of times that the patient has been admitted to Ladnan Hospital and the time that the last admission was done.
4.3.1 Department

The respondents were asked to indicate the department which they had been admitted at the health facility. The findings are presented in Figure 4.2

![Bar chart showing distribution of departments]

**Figure 4.2: Department**

The results in Table 4.1 show that 45% of the respondents had been admitted in paediatrics departments, 40% were admitted in surgical departments and only, 15% were admitted in gynecology department. This is an implication that the respondents were drawn from all the three departments which led to gathering of a more inclusive and reliable information regarding patient expectations and perceptions of inpatient health care service at Ladnan Hospital and their effect on patient satisfaction.

4.3.2 Frequency of Admission of Respondents at Ladnan Hospital

The findings on the frequency at which patients had been admitted at Ladnan Hospital over the last one year are presented in the figure below.
The findings showed that majority of the respondents (87%) were admitted at the hospital for the first time over the last one year. The remaining proportion had frequency of admission at the hospital exceeding once. Such variations in patient’s admission frequency were valuable in achieving the study objective. This is because repeat customers imply satisfaction, as urged by Guiltinan, Paul and Madden (1997) that satisfied customers are more likely to be repeat and even become loyal.

4.4 Customer expectation of Quality Healthcare

For this section, the study applied descriptive statistics on expectation of the customers concerning quality healthcare services as per the SERVQUAL dimensions of quality. A five-point Likert scale was used whereby 1=Strongly Disagree, 2 = Disagree, 3=Neutral, 4 = Agree, 5=Strongly Agree. The findings are presented in Table 4.1.

Figure 4.3: Frequency of Patients' Admission

The findings showed that majority of the respondents (87%) were admitted at the hospital for the first time over the last one year. The remaining proportion had frequency of admission at the hospital exceeding once. Such variations in patient’s admission frequency were valuable in achieving the study objective. This is because repeat customers imply satisfaction, as urged by Guiltinan, Paul and Madden (1997) that satisfied customers are more likely to be repeat and even become loyal.

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Table 4.1: Customer Expectation of Quality Healthcare

<table>
<thead>
<tr>
<th>Expectation of Healthcare Service Tangibility</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent hospitals will have modern looking equipment</td>
<td>4.42</td>
</tr>
<tr>
<td>The physical facilities at modern hospitals will be visually appealing</td>
<td>4.30</td>
</tr>
<tr>
<td>Employees of excellent hospitals will be neat appearing</td>
<td>4.45</td>
</tr>
<tr>
<td>Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent hospital</td>
<td>4.10</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>4.32</strong></td>
</tr>
</tbody>
</table>

**Expectation of Healthcare Service Reliability**

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>When excellent hospitals promise to do something by a certain time, they will do it</td>
<td>4.48</td>
</tr>
<tr>
<td>When customers have a problem, excellent hospitals will show a sincere interest in solving it</td>
<td>4.51</td>
</tr>
<tr>
<td>Excellent hospitals will perform the service right the first time</td>
<td>4.54</td>
</tr>
<tr>
<td>Excellent hospitals will provide their services at the time they promised to do so</td>
<td>4.35</td>
</tr>
<tr>
<td>Excellent hospitals will insist on error free records</td>
<td>4.45</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>4.47</strong></td>
</tr>
</tbody>
</table>

**Expectation of Service Responsiveness**

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees of excellent hospitals will tell customers exactly when service will be performed</td>
<td>4.50</td>
</tr>
<tr>
<td>Employees of excellent hospitals will give prompt service to customers</td>
<td>4.58</td>
</tr>
<tr>
<td>Employees of excellent hospitals will always be willing to help customers</td>
<td>4.59</td>
</tr>
<tr>
<td>Employees of excellent hospitals will never be too busy to respond to customer requests</td>
<td>4.39</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>4.52</strong></td>
</tr>
</tbody>
</table>

**Expectation of Healthcare Service Assurance**

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The behavior of employees of excellent hospitals will instill confidence in customers</td>
<td>4.52</td>
</tr>
<tr>
<td>Customers of excellent hospitals will feel safe in their transactions</td>
<td>4.60</td>
</tr>
<tr>
<td>Description</td>
<td>Score</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Employees of excellent hospitals will be consistently courteous with their customers</td>
<td>4.61</td>
</tr>
<tr>
<td>Employees of excellent hospitals will have the knowledge to answer customer questions</td>
<td>4.38</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>4.53</td>
</tr>
</tbody>
</table>

**Expectation of Healthcare Service Empathy**

<table>
<thead>
<tr>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent hospitals will give customers individual attention</td>
<td>4.47</td>
</tr>
<tr>
<td>Excellent hospitals will have operating hours convenient to all their customers</td>
<td>4.52</td>
</tr>
<tr>
<td>Excellent hospitals will have employees who give you personal attention</td>
<td>4.53</td>
</tr>
<tr>
<td>Excellent hospitals will have employees who have customers’ best interest at heart</td>
<td>4.36</td>
</tr>
<tr>
<td>The employees of excellent hospitals will understand the specific needs of their customers</td>
<td>4.44</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>4.46</td>
</tr>
</tbody>
</table>

Regarding expectation of healthcare service tangibility, a mean score of 4.32 was obtained which implied that respondents had high expectations regarding modernization of hospital equipment, physical facilities appeal, neatness and visually appeal of materials associated with the service (pamphlets or statements). Specifically, neatness of employees attained the highest score of 4.45 while materials being visually appealing in the hospital had the lowest score of 4.10. This implies that the respondents expected high quality healthcare service tangibility.

The results on services reliability yielded a mean score of 4.47, an implication that respondents had high expectations on healthcare service reliability. Customers’ expectations of hospital’s excellent execution of services and in the right way for the first time had the highest mean score of 4.54. The lowest mean of 4.35 was yielded by the inquiry on customers’ expectations of timely delivery of services by hospitals. The findings can be deduced to imply that customers have high expectations on hospitals’ ability to promise and to do something by a certain time, solving customers’ problems with sincere interest, performing services right the first time and having error free records.
Regarding healthcare service responsiveness, it emerged that the respondents expected it to be very high according to obtained weighted mean of 4.52. Notably, the highest score of 4.59 was obtained indicating that customers expected employees of excellent hospitals to always be willing to help them. The lowest score of 4.50 related to customers expecting employees of excellent hospitals to tell customers exactly when service will be performed. The findings can be construed to imply customers expect high health service responsiveness in helping customers and offering services to them promptly and responding to their requests without complaining to be busy.

According to the findings, expectation of healthcare service assurance yielded a mean score of 4.53 which can be construed to imply that customers had very high expectations of healthcare service assurance in excellent hospitals. Interestingly, customers’ expectations of employees being consistent and courteous in serving patients attained the highest mean of 4.61 whereas their expectations on employees of excellent hospitals having the knowledge to answer customer questions had the lowest mean score of 4.38. Finally, the average expectation score for empathy dimension is 4.46. The presence of employees who give customers personal attention in excellent hospitals had a score of 4.53.

4.5 Customers Perception of Healthcare Quality

This section of the study examines customers’ perception about the quality of healthcare services at Ladnan Hospital in harmony with the dimensions of SERVQUAL about quality services. The researcher assessed the perception of healthcare service tangibility; the outcome is captured in Table 4.2.
Table 4.2: Perception of Healthcare Quality

<table>
<thead>
<tr>
<th>Perception of Healthcare Service Tangibility</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladnan hospital has new equipment</td>
<td>2.75</td>
</tr>
<tr>
<td>Physical facilities at Ladnan hospital are appealing visually</td>
<td>2.90</td>
</tr>
<tr>
<td>Employees of Ladnan hospital appear neat</td>
<td>3.20</td>
</tr>
<tr>
<td>Materials associated with the service (such as pamphlets or statements) are visually appealing</td>
<td>3.11</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>2.99</strong></td>
</tr>
</tbody>
</table>

**Perception of Healthcare Service Reliability**

- When Ladnan hospital promises to provide services, they do it within the stipulated time. 3.45
- Ladnan Hospital is ready and willing to solve problems facing their customers. 3.56
- Ladnan Hospital performs its services right the first time 3.49
- The hospital provides their services when they promise to do so 3.35
- The hospital puts more emphasis on error free records 3.40

**Mean** 3.45

**Perception of Healthcare Service Responsiveness**

- Employees at Ladnan hospital advise the patients exactly when services will be delivered 3.47
- Employees at Ladnan provided efficient service to patients 3.56
- Employees at Ladnan are always ready to assist patients 3.65
- Employees at Ladnan are never busy to attend to their patients 3.51

**Mean** 3.55

**Perception of Healthcare Service Assurance**

- Employees behavior at Ladnan instill confidence to patients 3.52
- Patients feel safe in their transactions 3.65
- Employees at Ladnan are consistently courteous to their patients 3.61
- Employees at Ladnan have the knowledge to answer all questions raised by their patients 3.45
### Perception of Healthcare Service Empathy

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladnan hospital provides individual care to their patients</td>
<td>3.05</td>
</tr>
<tr>
<td>Ladnan has operating hours convenient to the patients</td>
<td>3.27</td>
</tr>
<tr>
<td>Ladnan hospital employees have workers that offer their customers personal attention</td>
<td>3.25</td>
</tr>
<tr>
<td>Ladnan consists of employees who offer services selflessly</td>
<td>3.50</td>
</tr>
<tr>
<td>Employees at Ladnan understands specific customer needs</td>
<td>2.95</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>3.20</strong></td>
</tr>
</tbody>
</table>

Of concern, the average lowest mean score of 2.99 was obtained pertaining respondents perception on healthcare service tangibility. Worth noting, the respondents were neutral when asked if Ladnan hospital has new equipment, according to mean score of 2.75. Generally, respondents were neutral when asked whether physical facilities at the Ladnan hospital were appealing visually; if employees of appeared neat, and whether materials associated with the service were visually appealing. It can be deduced that still there is low perception of customers on regarding the healthcare service tangibility at the hospital.

The average mean score for healthcare service reliability was 3.45. The results depicted that the respondents were indifferent with the healthcare service reliability. It was reported that Ladnan hospital was ready and willing to deal with problems that faced its customers according to a mean score of 3.56. However, respondents level of agreement with statements on whether Ladnan hospital promised to provide services they did within the stipulated time, if they performed their services right the first time, if the hospital provided their services when they promise to do so and if the hospitals puts more emphasis on error free records, were neutral.

The outcome on respondent’s perception on the dimension of Healthcare Service Responsiveness yielded an average mean score of 3.55. Worth noting, the respondents agreed that employees working for Ladnan hospital are willing to aid patients. However,
the respondents failed to agree or disagree when asked if employees at Ladnan hospital advised the patients exactly when services will be delivered. This was based on the lowest mean score recorded of 3.47.

Regarding the respondents’ perception concerning healthcare assurance dimension, average mean score of 3.45 was obtained implying mixed ratings on the customers perception on this dimension. This highest mean of 3.65 was attained implying that patients felt safe in their transactions. Regarding whether employees at Ladnan were knowledgeable to answer most of the questions posed by their patients, a mean score of 3.45 was obtained.

The results on healthcare service empathy dimension had average mean score of 3.20, an indication that the respondents were neutral with healthcare service empathy. Specifically, the study findings revealed that Ladnan hospital consisted of employees that provided services selflessly according to an attained a mean of 3.50. Of contrary, respondents were neutral when asked if employees at Ladnan understood specific needs of the clients. This attained the lowest mean of 2.95.

4.6 Effect of Patient Expectations and Perceptions on Patient Satisfaction

The study established how patients’ satisfaction had been affected by Customer Expectation and Perception. Hence, respondents were requested to indicate the extent of their satisfaction with the healthcare services that they received from Ladnan Hospital. The output is captured in Figure 4.4.

![Figure 4.4: Patient’s Satisfaction](image-url)
Output obtained shows that below half (40%) of the respondents agreed that they were satisfied with the healthcare services that they got from Ladnan Hospital, followed by 28% of the respondents who strongly agreed that they were satisfied with the healthcare services. The results imply that despite majority agreeing to be satisfied; still there is a group of patients who are dissatisfied with the quality of services.

Further, patients’ satisfaction level was assessed through examination of the gap that existed between the expectation of customers and their perception regarding the quality of healthcare services at Ladnan Hospital. Dimensions of service quality in accordance to Servqual scale have been applied by calculating the difference between mean expectation and perception scores. The results are provided in Table 4.3.

**Table 4.3: Gap Between Customer Expectation and Perception of Healthcare Service Quality**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Expectation Average</th>
<th>Perception Average</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>4.32</td>
<td>2.99</td>
<td>1.33</td>
</tr>
<tr>
<td>Reliability</td>
<td>4.47</td>
<td>3.45</td>
<td>1.02</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>4.52</td>
<td>3.55</td>
<td>0.97</td>
</tr>
<tr>
<td>Assurance</td>
<td>4.53</td>
<td>3.56</td>
<td>0.97</td>
</tr>
<tr>
<td>Empathy</td>
<td>4.46</td>
<td>3.20</td>
<td>1.26</td>
</tr>
<tr>
<td><strong>Mean gap</strong></td>
<td><strong>4.46</strong></td>
<td><strong>3.35</strong></td>
<td><strong>1.11</strong></td>
</tr>
</tbody>
</table>

The output in Table 4.3 shows that tangibility attained the highest gap score of 1.33 while responsiveness and assurance had the lowest gap scores with a tie of 0.97. Reliability attained a gap score of 1.02 and empathy, 1.26. This implies that tangibility had the greatest difference in terms of healthcare service expectations from an excellent hospital and the actual services delivered at Ladnan hospital. To determine if there was a significant difference between the means of expectations from an excellent hospital and the actual services delivered, a one sample t-test was conducted, and the findings presented below:
Table 4.4: One-Sample Test

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation Average</td>
<td>145.469</td>
<td>5</td>
<td>.000</td>
<td>4.46000</td>
<td>4.3812 - 4.5388</td>
</tr>
<tr>
<td>Perception Average</td>
<td>36.980</td>
<td>5</td>
<td>.000</td>
<td>3.35000</td>
<td>3.1171 - 3.5829</td>
</tr>
</tbody>
</table>

The results imply that there is a statistically significant difference between customer expectation and perception of Healthcare Service Quality, with expectations exceeding the perceptions. The findings concur with Coulthard (2004) who point out that a perception gap can appear between the expected service and the perceived service.
CHAPTER FIVE
DISCUSSION

5.1 Introduction

The key objective for this study was to examine service quality gaps that might be there in Ladnan Hospital, in Nairobi County, Kenya. The SERVQUAL framework that was applied as a tool for measuring service quality. To realize this goal, it was essential for the researcher to assess the impact of patients’ expectations on the quality of healthcare at Ladnan Hospital and assess patients’ perceptions healthcare quality. This chapter presents the discussion of the study.

5.2 Discussion

The Patients’ Expectations of the Quality of Healthcare at Ladnan Hospital

Concerning the respondents’ expectation of an excellent hospital, the findings depicts the patients had high expectation of quality healthcare services in terms of tangibility, reliability, responsiveness, assurance and empathy in excellent hospitals. These findings concur to that of Kang and James (2004) that customers have high expectations of receiving personalized, flexible and adjustable services to suit their needs. The core expectations were on neatness of employees, execution of services in the right way for the first time, employees’ willingness to help, employees being consistent and courteous in serving patients. The findings imply that as patients seek healthcare services, they do have highest expectation of healthcare service quality in aspects of assurance, followed by service responsiveness then service reliability, then service empathy and finally healthcare service tangibility. The findings are contrary to those of Zarei et al. (2012) who studied service quality in the private hospitals of Iran from the patients’ perspective and established that tangibility has the highest expectations. For healthcare service assurance, customers expect highest service quality in their transactions with hospitals and consistent courtesy from hospital staff. Additionally, patients expected hospitals to have employees who are always willing to help them. This is an implication of expectation of high service quality pertaining aspects of healthcare service responsiveness. This finding is in line with Gole (2015) who states that responsiveness is
important since customers feel providers are responsive to their requests not just emergencies, but every day.

High mean scored obtained for services reliability imply that patients had high expectations of healthcare service reliability, with expectations of hospital’s excellent execution of services and in the right way for the first time being key to them. This implies that patients expect the healthcare services they seek, to be delivered to them well. Additionally, there was high customers’ expectations on employees being consistent and courteous in serving patients. Finally, the study revealed that respondents had high expectations regarding modernization of hospital equipment and physical facilities appeal. The findings are supported by Tanomsakyut (2011) who argued that tangibility implies that a consumer’s expectations of quality is often based on physical evidence. The findings are further are similar to the Gap Model by Parasuraman et al (1990) which says that the expected service is influenced by the word-of-mouth, the personal needs, past experience and by the external communication to customers.

**The Patients’ Perceptions of the Quality of Healthcare Received at Ladnan Hospital**

Patients’ perceptions of the quality of healthcare received at Ladnan Hospital was low compared to their expectations. The findings indicate an existence of deviance between patients’ perception on the quality of healthcare services received and the expectations they have. The items on healthcare service responsiveness had the highest score compared to other factors an implication that patients appreciated service responsiveness at the hospital. This was followed by service assurance then service reliability, service empathy and finally, healthcare service tangibility. The findings agree with Devi and Muthuswamy (2016) who investigated service quality perception in multispecialty hospitals in India establishing that reliability and responsiveness were the three most important dimensions of hospital service quality perceived by patients. The findings revealed hospital employees’ willingness to help patients. The findings can be construed to imply that the hospital staff are dedicated in their service to patients. Further revelations were that respondents felt safe in their transactions. The findings agree with Mohebifar, Hasani, Barikani and Rafiei (2016) who argue that in all hospitals the
minimum gap between patients' perceptions and expectations is mostly observed in the responsiveness dimension. The findings however contradict with Lim and Tang (2000) who are of contrary opinion. The findings further agree with Hekmatpo, Sorani and Lashgarara (2012) who reported that the perceptions by patients on assurance dimension in hospitals had high scores. The results on healthcare service reliability depicted that the respondents were indifferent with the healthcare service reliability.

Perceptions of respondents on healthcare services empathy and tangibility were relatively low, an implication that there were mixed levels of contentment by the patients with the healthcare service empathy and tangibility, some perceiving the services as good while others being of contrary opinion. This is an implication that there needed improvement in the existing interpersonal relationship between doctors and patients. The findings are in line with Faris (2014) who argued that existing interpersonal relationship between doctors and patient was poor leading to empathy gap. Worth noting, respondents perceived that not all employees at Ladnan understood specific needs of the clients. This suggest that there were instances of failure by some of employees to understand needs of the clients leading to delivery of poor services. Generally, respondents where neutral when asked whether physical facilities at the Ladnan hospital were appealing visually. From these findings, it can be deduced that still there is low perception of customers on regarding the healthcare service tangibility at the hospital.

The results and outcome on customer expectation and perception of healthcare service quality informed derivation of such strategies. The findings established that gap between customer expectation and perception of healthcare service quality was most pronounced on tangibility. This implies that healthcare service tangibility had the greatest difference in terms of healthcare service expectations from an excellent hospital and the actual services delivered at Ladnan hospital. This was followed by empathy dimension which leads the study to propose on strategies to enhance interpersonal relationship skills that will improve staff-patient relationship. The findings also agree with Faris (2014) who established that the existing interpersonal relationship between doctors and patient was poor leading to empathy gap. The results of one sample t-test implied that there is a difference between customer expectation and perception of Healthcare Service Quality,
with expectations exceeding the perceptions. The findings show that quality improvement is necessary in all dimensions. The findings concur with Mohebifar, Hasani, Barikani and Rafiee (2016) who revealed existence of negative gap in all dimensions of quality in hospital. Further, the findings agree with Nadi, Shojaee, Ghassem, Hasan, Ehsan and Farideh (2016) who argues that patients’ expectations haven’t been met in any of the examined dimensions and their consent has not been achieved. The results imply that service tangibility was wanting, hence leading to suggestion for strategy improving the healthcare service tangibility. Additionally, having established wide gap in reliability and empathy of services, strategies on healthcare service reliability and empathy were needed. The findings are backed up by Kaizen theory which advocate for organizational change in dynamically changing operating and marketing environment. The findings further agree with Hekmatpour, Sorani, Farazi, Fallahi and Lashgarara (2012) who point out that hospitals had failed to meet patients’ expectations in any of the quality dimensions, adding that the overall rate of perceived service quality does not correspond to patients’ average expectations. Majority of the studies carried out in this area examine the deviance between perceptions and expectations of the patients. This study however, focused on inpatients and further analyzed the deviances per each service quality factor from context of private hospital. Hence, the study contributes to the body of knowledge by providing a detailed comparison between perceptions and expectations of the customers and further relating the results to patients’ satisfaction.
CHAPTER SIX
CONCLUSION AND RECOMMENDATIONS

6.1 Introduction
This chapter presents the conclusion of the study and recommendations derived from the study findings.

6.2 Conclusion
The study concludes that patients’ expectations exceed their perceptions regarding the quality factors at Ladnan Hospital. Such gap is statistically significant with tangibility having the highest gap score while responsiveness and assurance have the lowest gap scores.

The study concluded some patients’ expectations are met while for others, their expectations haven’t been met. These include modernized equipment, appeal of physical facilities, neatness of employees and appeal of materials associated with the service. This imply that despite there being a concomitant increase in investments in health care sector, it’s not adequate. Other areas include hospitals promise to provide services they did within the stipulated time and in a right way right and emphasis on error free records.

Also, there is low levels of agreement by patients on whether employees at the hospital understand the specific needs of the clients. It is deduced that the greatest variability between patients’ perception and expectation is more pronounced on tangibility followed by empathy, then reliability, reliability and finally responsiveness and assurance.

6.3 Recommendations
The study revealed that there was discontentment by some patients with the equipment and facilities at the hospital. The findings offer a better understanding to Ladnan management team and healthcare centers on patients’ expectations and perceptions regarding hospital equipment and facilities. Hence the study recommendations are that there is need for hospitals to invest in modern equipment and facilities to enable the hospital facility to carry out their mission and hence increase customer satisfaction.
Additionally, the policymakers should as well formulate policies and supportive frameworks to enable hospitals acquire modern equipment and facilities.

The study revealed that the question on whether employees at Ladnan understood specific customer needs had a score of 2.95, an implication that there were some deviations on employees understanding of customer needs. It is recommended that Ladnan Hospital management should conduct regular training and development programs for its healthcare service providers to enhance their skills and knowledge in their profession. In turn, this will improve their level of competence and effectiveness in provision of quality healthcare services.

The study established that there was a statistically significant difference between customer expectation and perception of healthcare service quality, with expectations exceeding the perceptions. Based on the findings, the study recommends that Ladnan Hospital management should enhance their quality factors, that is, responsiveness, reliability, empathy, tangibles, assurance, to bridge the gap and overall, enhance customer satisfaction.

6.4 Suggestions for Further Research

There is a compelling need to conduct further research on the challenges that healthcare facilities face in trying to provide quality healthcare services. Thus, shed more light on ways to counter these challenges. In so doing, healthcare facilities will be able to deliver quality healthcare services sustainably.

Having established that there is a statistically significance gap between customer expectation and perception of healthcare service quality, the study recommends for further studies to establish the cause of this gap. The findings of such research will enable the hospitals to work towards meeting the expectations of the customers.
REFERENCES


Ndinda, O. M. (2012). *Clients’ Satisfaction With Hiv/AIDS Care Services Offered At The Comprehensive Care Centre Machakos District Hospital, Kenya*. Unpublished
Degree of Masters in Public Health in the School of Health Sciences of Kenyatta University.


APPENDICES

Appendix 1: Letter of Introduction

Hiram Muriuki,

Strathmore University,

School of Business Studies,

Dear Respondent,

RE: Request to interview you about Ladnan Hospital

I hereby request you to participate in a study that is intended to meet my academic requirements of Masters of Business Administration in Strathmore University. The study is titled:

A STUDY OF INPATIENT SERVICE QUALITY AT LADNAN HOSPITAL.

This study is intended for academic purposes only and all information that you provide will be treated as confidential.

Your sincerity in answering the questions provided will be highly appreciated.

Yours Faithfully,

Hiram Muriuki
Appendix 2: Questionnaire

My name is HIRAM KIMARI MURIUKI a postgraduate student at Strathmore University. In partial fulfilment of the course master’s in business administration, I am conducting a research on the A STUDY OF PATIENT EXPECTATIONS’ AND PERCEPTIONS’ OF INPATIENT HEALTH CARE SERVICE AT LADNAN HOSPITAL AND THEIR EFFECT ON PATIENT SATISFACTION. Your participation in this research by responding to this questionnaire will be appreciated. All your responses will be held in confidence and the data collected will only be used for academic purposes. Instructions (tick where appropriate)

<table>
<thead>
<tr>
<th>Department (Obstetrics/gynecology, pediatrics, surgical, medical or other. If other, please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many times have you been admitted to Ladnan Hospital in the last one year;</td>
</tr>
<tr>
<td>When was this last admission done;</td>
</tr>
</tbody>
</table>

EXPECTATIONS QUESTIONNAIRE

Directions: Based on your experience as a customer seeking healthcare services, think about the hospital that would deliver excellent inpatient healthcare quality. Indicate the extent to which the following features describe what you would like to get from such a hospital. Please tick based on the degree of how you feel about each feature. There is no
right or wrong answer. All we want is an indication of what you feel about the services in Ladnan Hospital.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Excellent hospitals will have modern looking equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>E2</td>
<td>The physical facilities at modern hospitals will be visually appealing</td>
<td></td>
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</tr>
<tr>
<td>E3</td>
<td>Employees of excellent hospitals will be neat appearing</td>
<td></td>
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<tr>
<td>E4</td>
<td>Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent hospital</td>
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<tr>
<td>E5</td>
<td>When excellent hospitals promise to do something by a certain time, they will do it</td>
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<tr>
<td>E6</td>
<td>When customers have a problem, excellent hospitals will show a sincere interest in solving it</td>
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<tr>
<td>E7</td>
<td>Excellent hospitals will perform the service right the first time</td>
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<tr>
<td>E8</td>
<td>Excellent hospitals will provide their services at the time they promised to do so</td>
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<td>E9</td>
<td>Excellent hospitals will insist on error free records</td>
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<td>E10</td>
<td>Employees of excellent hospitals will tell customers exactly when service will be performed</td>
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<td>E11</td>
<td>Employees of excellent hospitals will give prompt service to customers</td>
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<td>E12</td>
<td>Employees of excellent hospitals will always be willing to help customers</td>
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<tr>
<td>E13</td>
<td>Employees of excellent hospitals will never be too busy to respond to customer requests</td>
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<td>E14</td>
<td>The behavior of employees of excellent hospitals will instill confidence in customers</td>
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<td>E15</td>
<td>Customers of excellent hospitals will feel safe in their transactions</td>
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<tr>
<td>E16</td>
<td>Employees of excellent hospitals will be consistently courteous with their customers</td>
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<tr>
<td>E17</td>
<td>Employees of excellent hospitals will have the knowledge to answer customer questions</td>
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<tr>
<td>E18</td>
<td>Excellent hospitals will give customers individual attention</td>
<td></td>
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<tr>
<td>E19</td>
<td>Excellent hospitals will have operating hours convenient to all their customers</td>
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<tr>
<td>E20</td>
<td>Excellent hospitals will have employees who give you personal attention</td>
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<tr>
<td>E21</td>
<td>Excellent hospitals will have employees who have customers’ best interest at heart</td>
<td></td>
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<tr>
<td>E22</td>
<td>The employees of excellent hospitals will understand the specific needs of their customers</td>
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</tbody>
</table>

**PERCEPTIONS QUESTIONNAIRE**
Directions: The following statements relate to your feelings about Ladnan Hospital in patient services. For each statement, please show the extent to which you believe Ladnan Hospital has the feature described by the statement. Please tick only one box per row. There is no right or wrong answer. All we are interested in is an indication of your feelings regarding the service.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>P1</td>
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<td>P2</td>
<td>Ladnan’s Hospital facilities are visually appealing</td>
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<td>P3</td>
<td>The employees at Ladnan Hospital are neat appearing</td>
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<tr>
<td>P4</td>
<td>Materials associated with the service (such as pamphlets or statements) are visually appearing at Ladnan Hospital</td>
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<tr>
<td>P5</td>
<td>When Ladnan Hospital promises to do something by certain time, it does it</td>
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<tr>
<td>P6</td>
<td>When you have a problem, Ladnan Hospital shows a sincere interest in solving it</td>
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<td>P7</td>
<td>Ladnan Hospital performs the service right the first time</td>
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<tr>
<td>P8</td>
<td>Ladnan Hospital provides its services at the time it promises to do so</td>
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<td>P9</td>
<td>Ladnan Hospital insists on error free records</td>
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<tr>
<td>P10</td>
<td>Employees of Ladnan Hospital tell you exactly when service will be performed</td>
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<tr>
<td>P11</td>
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<td>P15</td>
<td>You feel safe in your transactions with Ladnan Hospital</td>
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<td>P18</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>P19</td>
<td>Ladnan Hospital has operating hours convenient to all its customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P20</td>
<td>Ladnan Hospital has employees who give you personal attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P21</td>
<td>Ladnan Hospital has our best interest at heart</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P22</td>
<td>Employees of Ladnan Hospital understand your specific needs</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**PART D. PATIENT SATISFACTION**

Directions: indicate the extent to which you are satisfied with the services you got from Ladnan Hospital.
Please circle a number between 1 and 5 indicating the extent of your satisfaction with the services at Ladnan Hospital. By circling 1, means you are extremely dissatisfied and 5 means you are extremely satisfied. Please circle a single digit.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

THANK YOU
## Appendix 3: Patient Statistics at Ladnan Hospital

### Patient Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Days in Month</td>
<td>31.0</td>
<td>29.0</td>
<td>31.0</td>
<td>29.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
<td>31.0</td>
</tr>
<tr>
<td>2</td>
<td>Total No. of Admissions</td>
<td>79.0</td>
<td>76.0</td>
<td>75.0</td>
<td>77.0</td>
<td>74.0</td>
<td>92.0</td>
<td>177.0</td>
<td>278.0</td>
<td>285.0</td>
<td>292.0</td>
<td>359.0</td>
<td>65.0</td>
</tr>
<tr>
<td>3</td>
<td>Avg Admissions per day (2/1)</td>
<td>2.5</td>
<td>2.6</td>
<td>2.4</td>
<td>2.6</td>
<td>2.4</td>
<td>3.1</td>
<td>5.7</td>
<td>9.0</td>
<td>9.5</td>
<td>9.4</td>
<td>11.7</td>
<td>2.0</td>
</tr>
<tr>
<td>4</td>
<td>Total Bed Days Overall</td>
<td>346.0</td>
<td>358.0</td>
<td>311.0</td>
<td>237.0</td>
<td>361.0</td>
<td>397.0</td>
<td>363.0</td>
<td>315.0</td>
<td>346.0</td>
<td>386.0</td>
<td>632.0</td>
<td>392.0</td>
</tr>
<tr>
<td>5</td>
<td>Avg Duration of Stay(2/2)</td>
<td>4.4</td>
<td>5.2</td>
<td>4.1</td>
<td>4.1</td>
<td>4.9</td>
<td>4.3</td>
<td>4.3</td>
<td>2.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.5</td>
<td>1.8</td>
</tr>
<tr>
<td>6</td>
<td>Total No. of Discharges</td>
<td>76.0</td>
<td>78.0</td>
<td>79.0</td>
<td>74.0</td>
<td>77.0</td>
<td>85.0</td>
<td>181.0</td>
<td>278.0</td>
<td>287.0</td>
<td>292.0</td>
<td>316.0</td>
<td>21.0</td>
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<tr>
<td>7</td>
<td>Avg Discharge per day (6/1)</td>
<td>2.5</td>
<td>2.7</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.8</td>
<td>5.8</td>
<td>9.0</td>
<td>9.6</td>
<td>9.4</td>
<td>10.5</td>
<td>0.7</td>
</tr>
<tr>
<td>8</td>
<td>Total No. of Deceased</td>
<td>9.0</td>
<td>9.0</td>
<td>5.0</td>
<td>4.0</td>
<td>6.0</td>
<td>6.0</td>
<td>9.0</td>
<td>14.0</td>
<td>10.0</td>
<td>8.0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>9</td>
<td>Avg Deceased per Day (8/1)</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>10</td>
<td>Total No. of Outpatients</td>
<td>849.0</td>
<td>830.0</td>
<td>894.0</td>
<td>801.0</td>
<td>954.0</td>
<td>885.0</td>
<td>1,056.0</td>
<td>1,114.0</td>
<td>1,097.0</td>
<td>1,371.0</td>
<td>1,319.0</td>
<td>268.0</td>
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<tr>
<td>11</td>
<td>Avg Outpatients per day (10/1)</td>
<td>27.4</td>
<td>28.6</td>
<td>28.8</td>
<td>26.7</td>
<td>30.1</td>
<td>29.4</td>
<td>33.9</td>
<td>35.9</td>
<td>36.6</td>
<td>44.2</td>
<td>44.0</td>
<td>8.6</td>
</tr>
<tr>
<td>12</td>
<td>Total Revenue Outpatients</td>
<td>1,735,885.2</td>
<td>1,640,905.7</td>
<td>1,913,162.3</td>
<td>1,778,389.1</td>
<td>2,011,050.0</td>
<td>1,277,008.1</td>
<td>2,602,439.5</td>
<td>2,463,465.9</td>
<td>2,468,783.0</td>
<td>3,122,881.8</td>
<td>3,255,324.5</td>
<td>689,995.2</td>
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<tr>
<td>13</td>
<td>Avg Outpatients Revenue (12/10)</td>
<td>2,045.0</td>
<td>1,976.0</td>
<td>2,140.0</td>
<td>2,220.0</td>
<td>2,154.0</td>
<td>2,091.0</td>
<td>1,964.0</td>
<td>2,211.0</td>
<td>2,191.0</td>
<td>2,278.0</td>
<td>2,468.0</td>
<td>2,253.0</td>
</tr>
<tr>
<td>14</td>
<td>Total Revenue Inpatient</td>
<td>9,950,244.0</td>
<td>10,229,468.0</td>
<td>14,539,444.0</td>
<td>10,584,255.0</td>
<td>10,079,671.0</td>
<td>11,224,151.0</td>
<td>13,174,046.0</td>
<td>13,299,159.0</td>
<td>11,777,810.0</td>
<td>13,246,752.0</td>
<td>19,467,605.0</td>
<td>11,321,785.0</td>
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<tr>
<td>15</td>
<td>Avg Inpatient Revenue (14/12)</td>
<td>129,028.4</td>
<td>134,587.7</td>
<td>191,192.6</td>
<td>137,387.7</td>
<td>148,319.9</td>
<td>122,691.4</td>
<td>74,429.7</td>
<td>74,840.9</td>
<td>43,325.7</td>
<td>45,375.9</td>
<td>55,621.7</td>
<td>179,710.9</td>
</tr>
<tr>
<td>16</td>
<td>Total Revenue Volume (12+14)</td>
<td>11,185,129.2</td>
<td>11,688,569.7</td>
<td>16,252,668.3</td>
<td>12,571,584.1</td>
<td>12,691,629.8</td>
<td>13,051,149.1</td>
<td>15,256,503.5</td>
<td>15,763,215.9</td>
<td>14,118,590.0</td>
<td>16,372,653.8</td>
<td>22,722,927.5</td>
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<tr>
<td>17</td>
<td>Avg Revenue Per Day (16/14)</td>
<td>377,106.5</td>
<td>409,274.8</td>
<td>524,277.6</td>
<td>412,411.8</td>
<td>409,497.4</td>
<td>435,688.3</td>
<td>401,580.1</td>
<td>508,930.8</td>
<td>472,719.8</td>
<td>526,149.5</td>
<td>757,439.9</td>
<td>384,700.7</td>
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<tr>
<td>18</td>
<td>Unprocessed Cash</td>
<td>69.0</td>
<td>53.0</td>
<td>49.0</td>
<td>50.0</td>
<td>60.0</td>
<td>66.0</td>
<td>53.0</td>
<td>50.0</td>
<td>50.0</td>
<td>70.0</td>
<td>112.0</td>
<td>42.0</td>
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<td>19</td>
<td>Unprocessed Invoices</td>
<td>27.0</td>
<td>26.0</td>
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<td>256.0</td>
<td>312.0</td>
<td>364.0</td>
<td>429.0</td>
<td>472.0</td>
<td>542.0</td>
<td>561.0</td>
<td>606.0</td>
<td>167.0</td>
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