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**School of Graduate Studies Marketing Management**

**Factors affecting Healthcare Service Quality and Performance at  
Yanet Surgical and Internal Medicine Centre**

**A THESIS SUBMITTED TO DEPARTMENT OF MARKETING  
MANAGEMENT IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN  
MANAGEMENT**

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Addis Ababa Ethiopia**

## **DEDICATION**

This thesis is dedicated to my sister.

## **DECLARATION**

The thesis titled “Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre.” is entirely my own creation, I, Fikru Ababu Woldeamanuel, therefore declare. With the help and direction of my advisor, I completed the research for my thesis on my own. This research has not been submitted for any degree or diploma at this school or any other. It was completed in order to fulfill a prerequisite for the Master of Science in Marketing Management.

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This is to confirm that Fikru Ababu worked under my direction and supervision to complete his research project on the subject of **“Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre”** By signing this document, I vouch for the suitability of his work to be submitted for the Degree of Master of Science in Marketing.

**Advisor: Yibeltal Aschalew (PHD)**

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\_\_\_\_\_  
Signature

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Date

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## **List of abbreviations and acronyms**

**SERVQUAL** -service quality

**SPSS**- statistical package for social science

**YSIMC**- Yanet Surgical and Internal Medicine Centre

**WHO**- World Health Organization

**LMIC**- low- and middle-income countries

**FMOH**- Federal Ministry of Health

**HSTP**-Health Sector Transformation Plan.

## ***Abstract***

*Quality in health care service delivery is key in ensuring patient satisfaction since delivering quality service has a direct influence on the customer satisfaction. To gather and analyze primary data, the researcher utilized both descriptive and explanatory study design together with quantitative research approaches. The general objective was to assess factors affecting service quality in Yanet Surgical and Internal Medicine Centre. Specifically, the study analyzed how employee professional competency, application of modern technology and service price affect the quality of the service. The research was quantitative adopting a cross sectional descriptive research design. The target population included 400 consumers who seek medical care at YSIMC. The research was based on primary data acquired through questionnaire. For quantitative data, descriptive and inferential statistics were generated. Under inferential statistics correlation analysis were undertaken. Data analysis done mainly by quantitative analysis namely descriptive and inferential statistics using SPSS 23.0. The study found out that Employees professionals competency, application of modern technology and service price has great impact on service quality that is measured by using three dimensions namely: reliability, responsiveness and empathy. The study recommends that Yanet Surgical and Internal Medicine Centre should keep on providing its quality health service and more over should invest more on application of modern technology and improving professional capacity of its employees.*

***Keywords: capacity, empathy, reliability, responsiveness, modern technology.***

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# **CHAPTER ONE**

## **1. INTRODUCTION**

### **1.1. Background of the study**

A crucial component of the health care delivery system that is prioritized is quality of care. The idea of quality in healthcare is multifaceted, intricate, and highly subjective. Al-Dula, 2017. Even well-known authors have different perspectives and an understanding of what quality is, suggesting that quality is a concept with multiple interpretations. Several notable authors and thought leaders provided the following definitions of quality: While Deming, Feigenbaum, and Ishikawa defined quality as products and services that need to satisfy customers in accordance with their needs and expectations, Crosby's definition concentrated solely on conformance to specifications. However, Juran's definition simultaneously included customer satisfaction and specification. The definition of quality hasn't consistently produced the same outcomes. Quality emphasized that quality has multiple definitions, regardless of the context or time in which it is examined. Due to the constantly shifting needs and expectations of customers, the definition of service quality can be difficult to define. In order to stay up with the changes, quality needs to be continuously managed and improved.

Compared to other industries, the quality of healthcare is more difficult to define and quantify. It is challenging to define and quantify quality in the healthcare industry due to unique characteristics like simultaneity, heterogeneity, and intangibility. Unlike manufactured goods, healthcare carriers are intangible products that cannot be physically touched, felt, seen, counted, or measured. Since tangible goods can be sampled and checked for quality both during the production process and afterward, producing them allows for quantitative measures of satisfaction. Good healthcare services, however, are dependent on the provider's approach and the interactions between the patient and the provider. Some healthcare high-quality attributes such as timeliness, consistency, and accuracy are challenging to measure beyond a subjective assessment by means of the consumer (Olijera L., 2001 and Newman D, Gloyd S, Nyangez MJ, Machoro F, 1998).

Patients are adversely impacted by healthcare systems and procedures on a daily basis, but the frequency and severity of these effects have not decreased significantly. The literature demonstrates that, despite efforts to raise service quality, there is still disagreement over the nature, scope, and standards of quality. In general, the issue of identifying the dimensions of service quality is contentious and significant; however, there is currently a lack of agreement on several of these dimensions. The factors (also known as determinants) and indicators (also

known as criteria) of service quality remain an unresolved critical issue, despite the fact that all researchers concur that the structure of service quality is multidimensional and complex in nature.

According to Mohammad (2013), providing high-quality healthcare involves satisfying providers and continuously enticing patients with effective and efficient healthcare services that adhere to the most recent standards and guidelines while also meeting the needs of the patients. Donabedian (2016) conducted a pluralistic evaluation with 700 healthcare stakeholders, including patients, policymakers, providers, and managers, with the goal of identifying the attributes of high-quality healthcare. He categorized the 182 traits of a high-quality healthcare system into five groups: environment, efficacy, efficiency, effectiveness, and empathy. Timeliness, availability, affordability, confidentiality, accessibility, and responsiveness are just a few characteristics that define the provision of high-quality healthcare (Mohammad, 2013).

Among the most intricate systems that support human needs is the healthcare system. Coordination between numerous organizations and providers is necessary to provide high-quality healthcare services (Irurita-Ballesteros et al., 2019). Some of the obstacles to the improvement of quality in healthcare systems are their complexity, bureaucracy, and excessive number of departments. Furthermore, complex problems in the healthcare industry require highly customized solutions (Shahidzadeh-Mahani et al., 2018).

The World Health Organization (WHO 2016) states that most of the sub-Saharan African countries are unable to provide adequate, high-quality healthcare due to dwindling resources and economic factors. Because of this, the majority of nations have advocated for devolution as a primary means of advancing health sector reforms, believing that this will allow them to better utilize the resources at their disposal to enhance both the quality and accessibility of the healthcare services they provide (Hurley et al., 2018). For instance, the government offers basic primary care in South Africa, but there are also specialized and high-tech healthcare options available in both public and private hospitals. Even though the government pays for about 40% of all medical costs, the public health system is overfunded in some areas despite the expectation that 80% of the population will use its services. The unequal distribution of resources has led to inadequate funding, bad management, and deteriorating infrastructure, all of which have decreased the quality of healthcare (Watts, 2017).

## **1.2. Statement of the problem**

Everybody has the universal right to access health care services. Because patient perceptions have a major impact on customer satisfaction and, in turn, the financial performance of an organization, patient perceptions of the quality of care are crucial to the long-term viability of health care service providers (Boudreaux & O'Hea, 2004). The lack of trained medical personnel, shoddy infrastructure and equipment, and unavailability of pharmaceutical supplies and drugs—all primarily related to inadequate financing resulting from inadequate budget allocation and utilization—have all negatively impacted Ethiopia's health service quality.

Ethiopia has extremely poor health conditions compared to other low-income countries. According to studies done there; health services are scarce and of poor quality (Zewdie Berhanu, Tyson Asefa, Mirkuze Woldie, 2010). According to a 2012 study done in Addis Ababa at both public and private hospitals, approximately 18.0% of patients at the public hospitals and 26.5% of patients at the private hospitals—a somewhat higher percentage—were found to be very satisfied (Tayler Tateke, Mirkuzie Woldie, 2012). Among other various studies carried out throughout Ethiopia, the Jimma University Hospital had a 46.9% customer satisfaction rate (based on respondents' time spent seeing a doctor), Yekatit 12 Hospital Medical College had a 47% rating, certain Addis Ababa hospitals had a 53% rating, Gondar had a 22.0% rating, Jigjiga town had a 41.7% rating, and Debre birhan Referral Hospital had a 57.7% rating (Fekadu Asefa, Andualem Mosse, 2011; Fikirte Woldeselassie, 2019; Gebreyesus, 2019; Getabalew E. Bekel, Yimer S. Yimer, 2018; Rahel Mezemir, Darye Getchew, 2014). According to all of the aforementioned studies, there are more unhappy customers in Ethiopia than satisfied ones. This is a significant finding that needs further investigation. By empirically examining the variables influencing the quality of healthcare services in Ethiopian healthcare facilities, specifically private facilities like Yanet Surgical and Internal Medicine Specialty Center, this study seeks to close this research gap. Therefore, by empirically examining patient perspectives on variables influencing the quality of healthcare services at Yanet Surgical and Internal Medicine Specialty Center, this study seeks to close this research gap.

### **1.3. Research questions**

- i. How does 1. Employee capacity of employees affect the standard of medical care provided in YSIMC?
- ii. How does application of modern technology on service delivery affect the standard of medical care provided in YSIMC?
- iii. How does the price of medical services at YSIMC impact the standard of care provided?

### **1.4. Objectives of the Study**

#### **1.4.1. General Objectives**

To assess the factors affecting service quality provided in Yanet Surgical and Internal Medicine Center.

#### **1.4.2. Specific objectives**

- To evaluate how professional competency of employees affects health care services in YSIMC.
- To evaluate the impact of application of modern technology on service delivery in YSIMC.
- To determine the impact of price of medical service at YSIMC on quality of medical services provided.

#### **1.4.3 Research hypothesis**

1. Employee capacity had positive and statistically significant effect on service quality.
2. Application of modern technology has positive and statistically significant effect on service quality.
3. Service price has positive and statistically significant effect on service quality.

### **1.5. Significance of study**

Three main entities stand to gain from and find the study to be significant. These comprise relevant policy makers, medical professionals, and academics. It is anticipated that the study's conclusions and suggestions will help policymakers create plans and policies that will direct the efficient delivery of high-quality healthcare and guarantee that the main objective of bringing services closer to the general public is achieved. Furthermore, the study's conclusions provide additional insight into the best strategies that senior medical staff members, such as medical superintendents, hospital managers, and county government representatives, can use to address the sporadic problems that public healthcare faces at the national level and enhance the provision of high-quality healthcare services in the area.

Furthermore, it is anticipated that the study will advance scientific understanding, particularly with regard to the ways in which medical equipment, professional skill, and cost affect the provision of high-quality healthcare. Scholars can use the study as a good source of reference in this regard.



### **1.6. Scope of the Study**

Yanet Surgical and Internal Medicine Center is a private healthcare facility where this study will be carried out. The study will be carried out in surgical and internal medicine wards, as well as inpatient and outpatient departments. Clients receiving treatment as inpatients as well as outpatients will be the target group for this research study. The study comprised a set of dependent and predictor variables. Professional competence, medical equipment, and cost were predictor variables, and service quality was the dependent/outcome variable. This study did not examine all potential influences on the provision of high-quality healthcare. To further facilitate data handling, the researcher used a five-point Likert-type scale. The results may not be sufficient to generalize to other medical facilities in Addis Ababa or the nation at large because they were limited to the health services provided by YSIMC.

### **1.7. Organization of the Study**

There are five chapters in the study: The first chapter includes an introduction section and concentrates on the following topics: study background, problem statement, research questions, aims, research hypotheses, importance, and study organization. The second chapter incorporates assessment of the relevant literature and focuses on relevant theoretical and empirical reviews for this investigation. The third chapter includes a methodological section that concentrates on the following topics: the research design, data type and source, the study's target population, sample size and sampling methods, methods of data collection, methods of data analysis, reliability and validity analysis, and ethical considerations. The demonstration, investigation, and explanation of data are all included in chapter four. Finally, last and the fifth chapter incorporated the research's results deductions and suggestions.



## **CHAPTER TWO**

### **2. LITERATURES REVIEW**

#### **2.1. Introduction**

This chapter reviews research on professional competency, medical equipment, and cost factors that impact healthcare quality. The chapter also includes a conceptual framework that illustrates the proposed relationship between the study variables and a review of various studies that clarify the idea of quality health care.

#### **2.2 Theoretical Reviews**

##### **2.2.1. SERVPERF**

The developers of SERVPERF were Cronin and Taylor. This SERVQUAL modification proposes 22 performance-related statements rather than 44 expectations and performance-related statements, and it makes use of comparable categories to evaluate the quality of the service. Quality will be evaluated by SERVPERF as an attitude rather than as satisfaction. As a result, it employs the notion that satisfaction stems from perceived service quality. However, it goes further and connects happiness to more transactions (J.J. Cronin and S.A. Taylor, 1992).

(Adil M, Ghaswyneh O. F. M. and Albkour A.M. 2013) claims that SERVPERF measurement is superior because it reduces the number of items to be measured in half and accurately captures the truly perceived quality of service. Additionally, the performance measurement received a higher psychometric level of service quality assessment, according to (Martinez J. A. and Martinez L. 2010), in terms of structural validity and operational efficiency through performance data, and more accurately interpreted the overall measurement of the quality of services provided as measured by SERVQUAL. Brady's research is also included in this context, supporting the superiority of the Cronin and Taylor quality measurement performance approach, which is appropriately modeled as a previous consumer satisfaction.

##### **2.2.2. SERVQUAL Model**

This study's theoretical framework was based on the definition of services. Accordingly, services are defined as "activities, benefits, and satisfactions, which are offered for sale or are provided in connection with the sale of goods" in the note that the Athens University of

Economics and Business (2016) prepared for its introduction to services marketing course and posted online.

Because of its inclusivity and applicability, the service quality model known as "SERVQUAL" is regarded as the most significant of provider great fashions and one of the models that is most frequently used to measure excellent in service areas (Lee and Kim, 2017).

The Gronroos model (1984) states that perceived and expected service quality affect service quality. Word-of-mouth, brand perception, advertising, cost, and individual factors are the elements that combine to create the expected level of service quality. The technical and functional service dimensions as perceived by the customer determine the perceived quality. While functional quality describes how customers perceive the interactions that occur during service delivery, technical quality refers to the result of the service performance. Additionally, according to Gronroos, corporate image can function as a further service quality dimension in some situations. However, in actuality, it is a variable that modifies the relationships between perceived quality and technical and functional quality dimensions (Martinez and Martinez, 2010).

While the functional quality dimension is determined by customer-oriented physical and technical resources, accessibility of the firm's services, consumer-oriented self-service systems, and the firm's ability to maintain continuous contact with its customers, the Gronroos model assumes that technical solutions or technical abilities of the employees influence the technical quality dimension (Martinez and Martinez, 2010). Three components make up Rust and Oliver's (1994) proposed model: the service environment, the service product, and the service delivery.

The SERVQUAL model, which defines service quality as the difference between a customer's expectations for a service offering and their perception of the service they received, was developed by Parasuraman et al. (1985) as a result of exploratory research. The authors argued that consumers evaluate service quality based on universally applicable generic standards, which can be grouped into five dimensions: tangibles (physical facilities, equipment, and personnel appearance); reliability (ability to perform the promised service accurately and dependably); responsiveness (willingness to assist customers and provide prompt service); assurance (empathy, or the firm's ability to inspire confidence and trust in its employees) and responsiveness (responsiveness to customers' needs and promptness).

Dimensions of service quality are correlated, and they form the overall service quality perception.

SERVQUAL tools appropriate for assessing the perception gap in health care stakeholders' comprehension of patient expectations (Pakdil, F., and Harwood, T. 2005), It is crucial to have a significant and trustworthy model for assessing the discrepancies between patients' preferences and their actual experiences, as well as the five SERVQUAL service quality dimensions in a healthcare setting (Chakraborty R and Majumdar A, 2011). It is evaluated using 22 items and covers five service quality dimensions: responsiveness, tangibles, empathy, assurance, and reliability. It is predicated on the idea that discrepancies (gaps) between customers' expectations and perceptions in the five quality dimensions—reliability, responsiveness, tangibles, assurance, and empathy—are what determine the quality of services provided; Separate variable reliant variables Dimensions of health service quality fulfillment of patients.

Gronroos (1984) states that there are two ways to measure the quality of a service: technically and functionally. Technical quality in the health care sector is primarily defined by the technical accuracy of medical diagnoses and procedures, or by conforming to professional specifications; on the other hand, functional quality is related to the way in which patients receive health care services (Lam, 1997). Ware and Snyder (1975) stated that technical quality has high priority but most patients lack the knowledge to evaluate the quality of the diagnostic and therapeutic intervention process effectively or do not have the necessary information for such an evaluation, despite claims that technical qualities are not a truly useful measure for describing how patients evaluate the quality of a medical service encounter.

Medical professionals have always considered interpersonal and environmental factors to be less significant, but patients base their assessments of quality on these factors (Yeşilada et al., 2010). Researchers Parasuraman, Zeithaml, and Berry (1985, 1994) discovered a strong and positive correlation between people's willingness to recommend a company and how satisfied they are with the services they receive. Since the primary indicator of quality in health care services is the consumer's perception, they conclude that service quality is the difference between the customer's expectation and perception as it is being received.

Customer loyalty and purchase intentions are positively correlated with patient satisfaction, which is heavily influenced by service quality (Cronin and Taylor, 1992, O'Connor 1994).559

Procedia - Social and Behavioral Sciences 235 (2016) 557–565 Rezarta Kalaja et al. Eight criteria were used by Garvin (1988) to determine quality: serviceability, durability, conformability, performance, features, perceived quality, and aesthetics. Lastly, the gap model was developed by Parasuraman, Zeithaml, and Berry (1985) to describe service quality using a disconfirmation model that compared customer expectations and perception. Numerous studies have employed this model to evaluate the customer's expectations for service as well as their assessments of the provider's performance (Ladhari 2009; Zarei, Arab et al., 2012).

The gap concept and service quality dimensions were both taken into consideration when designing the SERVQUAL instrument. 22 pairs of statements on a seven-point Likert scale covering five service quality dimensions are included in the original SERVQUAL.

This scale defines quality as the difference between perceived expectations and actual performance; if performance meets or exceeds expectations, the customer will be more satisfied (Kopalle and Lehmann, 2001). The questionnaire consists of two sets of related statements: one measures customer expectations, and the other gauges how customers feel about the actual services they received. Many researchers have extensively used it in a variety of service settings, including hospitals (Andaleeb, 2000). Various researchers have argued that SERVQUAL is still a useful tool for measuring service quality and that it is valid and reliable in the hospital setting, despite some criticism regarding its validity and reliability (Buttle 1996, Babakus and Mangold, 1992).

In this research the researcher considers three of service quality measuring dimensions;

- 1. Reliability:** - The ability to perform the promised service dependably and accurately.
- 2. Responsiveness:** - The willingness to help customers and provide prompt service.
- 3. Empathy:** - The caring, individualized attention the hospital provides to its patients.

## **2.3. Review of Empirical Data**

This section summarizes previous research addressing variables influencing health care service quality. The studies specifically address professional competency, application of modern technology, and cost in relation to providing high-quality healthcare.

### **2.3.1. Quality of Health Care Services**

The most important evaluator who contributes significantly to determining the caliber of a product or service is the customer. Patients are the clients in the health care industry, and their opinions are the primary determinant of the quality of the services provided (Cronin and

Taylor, 1994). Additionally, it is possible to define service quality in terms of —conformance to customer specification. Gronroos (1984) states that there are two ways to measure the quality of a service: technically and functionally. Technical quality in the health care sector is primarily defined by the technical accuracy of medical diagnoses and procedures, or by conforming to professional specifications; on the other hand, functional quality is related to the way in which patients receive health care services (Lam, 1997). Even Since the primary indicator of quality in health care services is the consumer's perception, they conclude that service quality is the difference between the customer's expectation and perception as it is being received. According to a study done at public hospitals in Lahore, Pakistan, physical structures, supply availability, staff friendliness, timeliness of service, and reliability of service are all crucial elements that greatly enhance the quality of service (Syombua, C., &FN, K. 2018). Various studies regarding the effects of high-quality healthcare on patient satisfaction in public hospitals were presented by various individuals.

A quantitative study carried out at the Addis Ababa outpatient private wing service revealed that, on average, 78.2 percent of clients expressed greater satisfaction with the professionals' listening skills, courtesy and respect for their needs, advice, and information sharing. However, there was a noticeable lackluster performance in the service attributes. Just 22.8% of the clients had the prescribed medication, 73.1% had received the requested laboratory service, and only 59% were satisfied with the overall cleanliness of the physical environment.

### **2.3.2 Professional competency**

A major part of providing relevant healthcare services is performed by the staff of public health facilities. The purpose of Bibi (2018)'s study was to determine how talent management initiatives affected workers' performance in Pakistani healthcare institutions. The techniques used in this analysis are a quantitative approach and a cross-sectional design. The population convenience sample was used to collect the sample. 364 employees from healthcare facilities made up the research sample, which was used to evaluate the success of the staff members based on skill management. Questionnaires for gathering data have been employed. The study's findings demonstrated the highly beneficial effects of talent management—that is, finding and developing talent, mentoring and assisting in learning and talent development, and paying for talent retention—on workers' job performance. Sewe (2018) conducted a study in an attempt to determine how performance management techniques, hiring, training, and compensation affected the standard of healthcare. The work was grounded in the value model for services, human resources, energy and resources, and environmentally appropriate

theories. During the third quarter of the 2017–2018 fiscal year, patient complaints about the responsiveness and dependability of clinicians and nurses, as well as permanent clinical and caregivers, were the two demographic groups of concern. Using a systematic random sample, research 16 focused on the opinions of 97 individuals among the 130 physicians and nurses who are employed full-time. Using a multiple regression analysis, the significance of the relationship between the variables was determined. Tests of hypotheses showed that, in contrast to performance management and training, the relationship between hiring and pay and health care quality was statistically significant.

Researchers have also discovered that three factors—output quality being the most significant impact, followed by assurance and reliability—have a significant impact on customer satisfaction in Croatian, and that the perceived service quality dimensions were statistically significant with the overall customer satisfaction (Suzana Marković, Dina Lončarić, Damir Lončarić2014).

### **2.3.3. Health Care Equipment**

The need for medical care exceeds the capacity of health organizations; inadequate infrastructure and a shortage of skilled labor prevent the delivery of high-quality healthcare. For example, an efficient patient information system is necessary for proper patient diagnosis and treatment. Health care delivery is significantly impacted by the availability of essential medications and related equipment (Mohammad, 2013). According to Mwancha (2018), the objective is to investigate various elements that influence the delivery of these medical services, specifically in relation to the health centers in Nyamira County. In order to gather data, the study used a descriptive survey approach (17). A projected 1680 people were expected to be in the study, including patients, county health officials, political leaders, and medical professionals (physicians, nurses, doctors, lab technicians, and pharmacists).

The researchers came to the conclusion that the 27 government hospitals in the county now provided better healthcare; these facilities were networked to facilitate information sharing and minimize paperwork. Nonetheless, the county of Nyamira has lacked accountability and improperly managed its finances in other healthcare sectors. The impact of the organizational environment on the provision of health care services under the devolved system was investigated by Kinyajui and Awour (2019). It took place in Kenya's Kiambu County. The study design used for the analysis was a cross-sectional study, which is a descriptive research method in which 100 managers at the county and three level 5 hospitals in Kiambu County provided data once. Quantitative primary data was gathered and examined. The devolved



system's ability to provide health care services was adversely affected by political influence, conflict of interest, a lack of human resource capacity, and inadequate monitoring and evaluation, according to the results.

The availability of diagnostic and treatment machines as well as increased revenue were two benefits of national government policies that affected service delivery. The availability of drugs is essential because their scarcity could lead to patient deaths. Regarding this, a study conducted by (Tumwine et al., 2011). In a rural hospital in Uganda, the accessibility and expiration dates of essential supplies and medications have been examined using "pull" and "push" drug acquisition schemes. The study's objective was to determine the effects of "pull and push" medication purchase strategies on Kilembe Hospital's availability and reduction of vital medications and expired medical supplies, as well as the factors that affect supply.

The study discovered that the lack of necessary supplies was caused by inadequate funding, inadequate training, and a lack of transportation. Based on the findings, it was determined that the "pull" strategy decreased the amount of medical supply expirations and increased the affordability of essential medications.

A recent intervention study called Leadership Saves Lives focused on leadership behaviors meant to encourage favorable organizational culture changes in ten US hospitals. The results showed that during a two-year period, hospital culture changes varied greatly (Curry et al., 2018). Change was found to be more common in some areas, such as management support, perceptions of safety, and opinions about the learning environment, in hospitals that saw 18 significant and positive cultural shifts. Additionally, it was observed that in the current context of acute myocardial infarction treatment, hospitals experiencing 13 positive cultural changes also had a notable decline in risk standardized mortality rates (Curry et al., 2018).

#### **2.3.4. Cost**

Prior to the decentralized health sector, financial factors were the subjects of earlier studies. Few studies have been conducted on the financial aspects of the current devolved government, and none have examined the effect that county governments' financial distribution has on the provision of health care services under the devolved system. In an analysis of the restructuring of health services in the Philippines, (Grundy et al., 2014) noted that the decentralization of health services in some areas—mostly remote and rural areas—led to a decline in the availability and caliber of healthcare. Additionally, the analysis noted that the application of devolved powers resulted in a negative attitude, that various healthcare facilities did not utilize their resources. The impact of decentralization of health-care

financing on maternity care in Indonesia was examined by Hartwig et al. (2019). This study examines the variations in sub-national health-care financing strategies across various Indonesian districts and assesses the effect of the listed local schemes on the availability of maternal-care services from 2004 to 2010. There was use of pseudo panel data. Prenatal care visits increased as a result of district plans being adopted, according to the research study's findings. Furthermore, the availability of recommended and basic prenatal care services increased significantly for households without access to a national health insurance financing plan. Finally, the local healthcare finance schemes in the research area were positively impacted by programs such as the Antenatal Care (ANC) package.

Due to budgetary constraints and a lack of focus on the part of the county administration, the majority of counties lack adequate health facilities. This results in inadequate infrastructure and limited supplies, which has an impact on the provision of healthcare services under the devolved system. Furthermore, the availability of financial resources guarantees high-quality inputs and high-quality services. Given that good jobs seem to be completed with full pockets, the distribution of financial resources frequently ensures that employees receive their compensation on time (Mosadeghrad & Ferdosi, 2014).

Counties must look into alternate funding sources in order to pay for the provision of healthcare services. The amount of financial capital to be mobilized, performance, healthcare costs, and equity trends are all impacted by the combination of trustworthy sources (World Health Organization, 2002). Adoption of insurances and Private-Public Health Partnerships, in which private organizations, including private companies and funders, finance various public health initiatives, are among the options to be taken into consideration. 30 Akacho (2014) aimed to determine the factors influencing Kenyan health services delivery, with a primary focus on the country's public health system and the Usain Gishu District Hospital case. The census research concept, which focused solely on hospital employees in the Uasin Gishu District, served as the foundation for the analysis.

All employees from various hospital divisions were taken into consideration, and 96 employees from the same hospital were combined. Data collection methods included the use of questionnaires and analytical tools such as correlation analyses, averages, and medians. According to a study, the hospital's everyday operations are not supported by enough money, as evidenced by the inability to pay for the necessary pharmaceuticals.

Budget allocation in many low- and middle-income countries does not take into account the current changes in health care needs, such as the size of the population and the diversity of

disease patterns, which limits the ability of health care services to respond to these changes and has a negative impact on the provision of healthcare.

### **2.3.5. Patient or customer satisfaction**

Patient outcomes and patient satisfaction are the two metrics used to assess the quality of care in hospitals. When a person compares the perceived output (or outcome) of a good or service to what they had anticipated, they experience satisfaction or disappointment (Kotler P, 2000). According to Jenkinson, C. A., Coulter, A., Bruster, S., Richards, N., & Chandolaet, T. (2002), attitudes regarding treatment or treatment-related aspects tend to be the primary drivers of patient satisfaction.

According to various studies carried out throughout Ethiopia, the percentage of patients who were satisfied with the time they spent seeing a doctor was 46.9% at Jimma University Hospital, 47% at Yekatit 12 Hospital Medical College, 53% in Selected Addis Ababa Hospitals, 22.0% in Gondar, 41.7% at Jigjiga town, and 57.7% at Debrebirhan Referral Hospital (Fekadu Assefa, Andualem Mosse, 2011; Fikirte Woldeselassie, 2019; Gebreyesus, 2019; Getabalew E. Bekel, Yimer S. Yimer, 2018; Rahel Mezemir, Darye Getchew, 2014). Conversely, research conducted in various nations revealed that 75% of Bangladeshis (Aldana, J. M., Piechulek, H., & Al-sabir, A.) and 41.3% of Pakistanis (Kauzer Aftab, Shahs Ali, Zubia Qureshi, M. A. 2017) reported satisfaction with their service.

Conversely, research conducted at a public hospital in Ho Chi Minh City revealed through Structural Equation Model analysis that patient satisfaction is significantly impacted by the perceived quality of the hospital's services (CHAM, L. B. 2016).

## **2.4. Conceptual framework**

The relationship between the independent and dependent variables is shown in form of a diagram. The influence of hospital employee capacities, allocation of financial resources and the role of modern technology and extraneous variables such as age, gender, health conditions, cultural values, environmental factors and economic state of the public on provision of quality health services among the public is illustrated. This study was guided by the following conceptual framework.

## Independent Variables

### Employee capacity

- ✓ Staff qualifications
- ✓ Staff recruitment and Retention

### Application of Modern technology

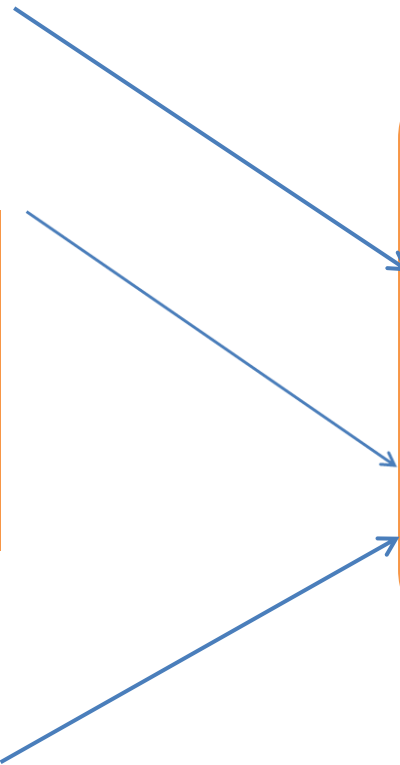
- ✓ Electronic Health Records
- ✓ Advanced Medical Equipment.

### Service Price

## Dependent Variable

### Healthcare Service Quality and Performance

- ✓ Reliability
- ✓ Responsiveness
- ✓ Empathy



## **CHAPTER THREE**

### **3. RESEARCH METHODOLOGY**

The methodologies that were employed for the study are presented in this chapter. It clarifies the research strategy. Information was provided regarding the demographic, sample, sampling methodology, research tools used in the study, data collection procedures, and a strategy for data analysis

#### **3.1. Research Approach and Design**

##### **3.1.1 Research Approach**

This study employs a mixed-methods research approach, integrating both quantitative and qualitative data to comprehensively investigate the factors affecting healthcare service quality and performance at Yanet Surgical and Internal Medicine Centre. The quantitative aspect involves the use of structured questionnaires administered to a representative sample of patients and healthcare providers, aiming to quantify perceptions and experiences related to service quality. Descriptive and inferential statistical analyses will be performed using SPSS to identify significant trends and correlations.

##### **3.2.1 Research Design**

Both descriptive and explanatory study design were used in this investigation. Descriptive research was used to analyze Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre. To determine how employee capacity, application of modern technology and service price impact service quality, quantitative research methods were chosen. Cross-sectional research was used in this study. According to Saunders et al. (2009), a cross sectional design concentrates on a certain phenomenon at a given moment. In this scenario, a single cross sectional study was conducted using one sample of the population, or numerous cross sectional studies could be conducted using two or more samples of the target population (Easterby Smith et al., 2008).

#### **3.2. Description of the study area**

Yanet Surgical and Internal Medicine Specialty Center provides healthcare services mainly with respect to internal medicine and surgery. It currently runs in one branch located at Hayat, Derartu Tulu square.

#### **3.3. Data Type and Source**

To accomplish the goals of the study, both primary and secondary data sources were utilized. Yanet Surgical and Internal Medicine Centre were surveyed using a standardized

questionnaire to obtain primary data. Books, academic publications, bank reporting guides, research papers, data collected from pertinent agencies, and unpublished documents were used as secondary data sources.

### **3.4. Sources of Data**

In order to analyze and describe the problem rose in the problem statement, this study uses both primary and secondary data. Malhotra (2005) asserts that primary data are created by the researcher specifically to address the issue at hand. Structured questionnaires and semi-structured Interview will be used to collect primary data, which is the most important.

Secondary data is information gathered for reasons other than the problem at hand (Malhotra & Birks, 2007). Books, periodicals, newspapers, journals, articles, and research papers will be used to acquire secondary data for this study. These forms of secondary data will aid in the development of a deeper understanding of the title study.

According to (Malhotra & Birks, 2007), "The Examination of existing secondary data is a precursor to the acquisition of primary data," Start with secondary data and only go on to primary data if secondary data sources have been exhausted or managerial returns have been realized." As a result, this study will collect and analyze primary data in conjunction with secondary data.

### **3.5. Population of the Study**

The study looks at the factors affecting health service quality and performance at Yanet Internal Medicine and Surgical Center. The study population of this study will be the patients who came to Yanet Internal Medicine and Surgical Center to seek service.

### **3.6. Sample Design and Sampling Techniques**

#### **3.6.1. Sample Design**

The study took into account the necessity to draw conclusions from the sample of the population in order to address the research questions and achieve the study's goals when designing the sample. The study's focus was on Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre .Therefore, the customers of the health center were included in the sample of this study using purposive sampling.

Yanet Surgical and Internal Medicine Centre customers were chosen as a representative sample for the study using finite population sample formula from Yamane (1967) as follows:

$$n = \frac{N}{1 + N(e)^2}$$

**n** = the required sample size: (?)

**N** = the target population (total number of employees)

**e** = value for selected alpha level of 0.05 = 1.96 (the alpha level of 0.05 indicates the level of risk the researcher is willing to take that true margin of error may exceed the acceptable margin of error.)

$$n = \frac{400}{1 + 400(0.05)^2} = \frac{400}{2} \approx 200$$

As a result, 200 customers of Yanet Surgical and Internal Medicine Centre were used as the sample size.

### **3.7. Data gathering instruments**

Data can be collected in two ways, according to Catherine (2007): primary or secondary. Primary data is information that is gathered and assembled expressly for a research effort. It can be gathered from a variety of methods, including questionnaires, interviews, and focus group discussions, among others.

Secondary data is information gathered from studies undertaken by other researchers on a certain subject or event (Catherine, 2007). As a result, both primary and secondary data sources will be obtained to meet the study's objectives.

Questionnaires are incredibly versatile, and they can be used to collect data on practically any issue involving large or small groups of individuals (Catherine, 2007). The primary data for this study will be collected using a structured questioner with simple questions that anyone may answer and a semi structured interview for the employee of Yanet Internal Medicine and Surgical Center.

### **3.8. Description of Variables**

#### **3.8.1 Dependent variables**

The dependent variable in this study is Reliability, Empathy and Responsiveness.

#### **3.8.2. Independent Variables**

The independent variables are categorized Employee Professionals Competency, Application of Modern Technology and Service Price.

### **3.9. Data analysis method**

Once the usable responses from the questionnaires were collected, the data was recorded and Coded into SPSS version 23 software. The collected data was analyzed and interpreted by using by quantitative techniques namely descriptive and inferential analysis techniques.

### **3.10. Reliability**

The consistency of a test, survey, observation, or other measuring equipment is referred to as reliability. The consistency of the variables is determined by the instrument or study's level of reliability. Cronbach's alpha will be used to assess the questioner's reliability. Cronbach's alpha is a measure of dependability that takes into account the fluctuation in the true score of the underlying construct.

Accordingly, a Cronbach's Alpha advantage of  $>0.7$  displays a significantly extreme reliability. Therefore; Cronbach's Alpha principles  $>0.7$  used to display the larger grade of internal constancy in this place study. According to Kothari, dependability is a measure of by what method constant, dependable, reliable and regular a test is in weighing the unchanging thing each occasion. Most basically, the dossier, the analyst analysed should picture to the research questions the analyst has reliable to answer (Kothari, C.R. 2008).

### **3.11. Descriptive Statistics Analysis**

The demographic data of the respondents, such as gender, age, marital status, and education level are reduced using descriptive analysis and also, a summary of the impact of employee capacity, application of modern technology and service price by using tabulations, frequency, percentages, and measures of central tendency (mean and standard deviation).

### **3.12. Inferential Statistics Analysis**

Hair et al. (2010) suggested that prior to performing any data analysis, it is important to verify any assumptions made regarding the sample size, scales of the variables, multivariate normal distribution, outliers, and their multicollinearity.

#### **3.12.1. Pearson Correlation Analysis**

Using Pearson's correlation coefficient or measure of relationships, this study looked at the relationship between the independent variable parts of training needs assessment, training design, training delivery, and training evaluation and organisational performance. The coefficient of correlation, a statistical indicator of the link between two variables, ranges from  $r = +1.0$  for a perfect positive correlation to  $r = -1.0$  for a perfect negative correlation. No connection is suggested for  $r = 0$ . The degree and direction of the link between two variables are revealed by the correlation coefficient. When "r" approaches 0 on either side, there is a weak link between the dependent variable and independent variable (Hair et al., 2010).



### **3.12.2. Multiple Regression Analysis**

In multiple linear regression, it is believed that a variable Y (the dependent variable) and K independent variables  $X_j$  ( $j = 1, 2, \dots, K$ ) have a linear relationship. When determining the effect of two or more independent variables on a dependent variable is sought, this technique of analysis is appropriate (Hair et al., 2010). The following multiple linear regression model was taken into consideration in order to examine the impacts of employee capacity, application of modern technology and service quality Yanet Surgical and Internal Medicine Centre. The specified model looked like this:

$$SQ = \beta_0 + \beta_1(EC) + \beta_2(AMT) + \beta_3(SP) + \varepsilon$$

Where:

SQ = Service Quality

$\beta_0$  = Constant

$\beta_1, \beta_2 \dots \beta_5$  = Slope (Regression Coefficients)

EC = Employee Capacity

AMT = Application of Modern Technology

SP= Service Price

$\varepsilon$  = is the total error of prediction (residual)

### **3.13. Validity**

The degree to which the outcome produced by an instrument accurately depicts the phenomenon being studied is known as the instrument's validity (Mugenda & Mugenda, 2003). As a result, this has an impact on the precision and significance of conclusions drawn from the study. To determine the instruments' content validity, a pilot study has been carried out. To ensure a logical flow of information and respondents' thought processes, the questionnaire items have been constructed with valid wordings and logical sequencing.

### **3.14. Ethical Consideration**

Throughout the research process, each participant's personal integrity shall be respected. Before any information is requested, each research participant will properly and easily be informed about the purpose of the study and asked for their oral consent. Participants will not be asked for any information without first obtaining their consent; all responses will be kept private and will only be utilized for study.

## CHAPTER FOUR

### 4. DATA ANALYSIS AND INTERPRETATIONS

This chapter presents the results of the researcher's investigation, which was carried out with the techniques described in chapter three. The general histories of the respondents, a full explanation of the three specific objectives, a study of descriptive statistics, and correlation and regression calculations using IBM SPSS version 23 are all covered in this article. Tests were conducted before any analysis to determine whether the results were reliable. Using content validity analysis, the internal consistency of the overall training and development dimensions, organizational performance, and validity were all investigated. The study's findings were also examined in reference to earlier research on the topic.

#### 4.1. Questionnaire Response Rate

The study circulated 200 questionnaires in total, and 194 of them were successfully completed, returned, and used as reliable samples.

**Table 4. 1: Questionnaire Response Rate**

Questionnaires Issued	Returned	Percentage of Return Rate
200	194	97.0%

Source: Survey Data (2024)

According to Mugenda & Mugenda (2003), a response rate of 50% was considered satisfactory, a rate of 60% good, and a rate of more than 70% extremely good. This assertion suggests that the 97.0% response rate in this case, as shown in Table 4.1 above, was excellent.

## **4.2. Demographic Characteristics of the Respondents**

The respondents' gender, age, marital status, degree of education, and service year are among their demographic features. The frequency and proportion of responders from a sample of Yanet Surgical and Internal Medicine Centre were shown below.

According to Table 4.2 below, there were 134(69.1%) male respondents and 60(30.9%) female respondents among the respondents to the Yanet Surgical and Internal Medicine Centre survey. This demonstrated that male respondents made up the majority of those who participated in the study to determine factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre.

**Table 4. 2: Demographic Characteristics of the Respondents**

No	Indicators	Category	Frequency	Percent
1	Gender	Male	134	69.1%
		Female	60	30.9%
Total			194	100.0%
2.	Age	Between 20 and 30 years	19	9.8%
		Between 31 and 40 years	30	15.5%
		Between 41 and 50 years	68	35%
		51 years and above	77	39.7%
Total			194	100.0%
3.	Marital Status	Single	55	28.4%
		Married	106	54.6%
		Divorced	20	10.3%
		Widowed	13	6.7%
Total			194	100.0%
4.	Level of Education	Diploma	13	6.7%
		First degree	140	72.2%
		Second degree and above	41	21.1%
Total			194	100.0%

Source: Survey Results (2024)

According to Table 4.2 above, participants between the ages of 20 and 30 made up 19(9.8%) of the participants, those between the ages of 31 and 40 made up 30(15.5%), those between the ages of 41 and 50 made up 68(35%), and those aged 51 and over made up just 77(39.7%) of the people who participated. As a result, most of the customers that are getting service at health facilities or they are keeping their health more than the others were aged more than 51 years, followed by those who were between the ages of 41 and 50, those who were between the ages of 31 and 40, and those who were between 20 and 30. It was clear from this those participants who were aged above of 51 years old made up the bulk of those who participated in the study, this implies that most of the customers that are getting service at health facilities or they are keeping their health more than the others.

55 of the participants (28.4%) were single, 106 individuals who participated (54.6%) were married, twenty participants (10.3%) were divorced, and the final thirteen participants (6.7%) were widowed, according to Table 4.2 above. When it came to marital status, married respondents that use medical service at Yanet Surgical and Internal Medicine Centre were the largest groupings, followed by singles, divorcees, and widows. This showed that the majority of participants to the study to ascertain quality of health service at Yanet Surgical and Internal Medicine Centre were married.

### 4.3. Reliability and Validity Assessment Results

Validity and reliability were evaluated in order to guarantee the accuracy and generalizability of the research findings. In order to evaluate reliability and validity, Cronbach's alpha was computed and the content validity was investigated. The researcher modified Cooper and Schindler's (2011) methods for obtaining content validity by locating existing scales in the pertinent literature. Table 4.3 below shows the Cronbach's alpha results, which were found to be higher than the minimum of 0.7 (Hair et al., 2010) for all relevant variables.

**Table 4. 3: Reliability Analysis Results**

Variables	No. of Items	Cronbach Alpha
<b>Employee Capacity</b>		
➤ Staff qualification	4	0.906
➤ Staff recruitment and retention	4	0.864
<b>Application of Modern Technology</b>		
➤ Use of E-Recording	4	0.864
➤ Use of Advanced Equipment	4	0.911
<b>Service price</b>	1	0.913
<b>Health service Quality</b>		
➤ Reliability	5	0.932
➤ Responsiveness	4	0.927
➤ Empathy	4	0.913

Source: Survey Results (2024)

### 4.4. Descriptive Analysis of the Study Variables

This section of the study was created using survey data from 194 health service customers of Yanet Surgical and Internal Medicine Centre who responded to closed-ended and 5-point Likert scale questions. Employee capacity (represented by staff qualification and quality staff recruitment and retention), Application of modern technology (represented by the use of IT and the use E- System) and Service price are the study's three independent variables. The results of the scales mean and standard deviation were reassigned as follows to facilitate in

keeping understanding of the descriptive analysis (Al-Sayaad et al., 2006); if the mean values lie in the range between 1 and 1.8 represents Strongly Disagree, between 1.81 and 2.6 represents Disagree, between 2.61 and 3.4 corresponds to Neutral, between 3.41 and 4.20 represents Agree, and between 4.21 and 5 indicates Strongly Agree.

#### **4.4.1. Summary of Descriptive Results**

Service quality in health care has been defined as the provision of appropriate and technically sound care that produces the desired effect. Consumer's Satisfaction is the main indicator of Quality in health care service. The quality of service, both technical and functional, is a key Ingredient in the success of service organizations. Technical quality in health care is defined primarily based on the technical accuracy of the diagnosis and procedures. Functional quality, in Contrast, relates to the manner of delivery of health care services. Measuring quality in healthcare has a number of benefits. To this respect, in this research service quality is analyzed based on Reliability, Responsiveness, and Empathy as determining variables.

#### **4.4.2. Reliability dimension**

Reliability was the variable that deals with the ability to perform the promised service dependably and accurately by the organization.

The average mean score for the training needs assessment questions ranged from 3.87 to 3.95, while the standard deviation value ranged from 0.70 to 0.77, as shown in Table 4.5 below. The chosen customers of Yanet Surgical and Internal Medicine Centre clearly agreed on among the key determining factors of quality health service is reliability of the health service center staff and its service because the mean values range between 3.40 and 4.20 (Al-Sayaad et al., 2006). Additionally, it was shown that respondents' opinions on the subjects were similar for the five questions with mean responses greater than 3.40 and standard deviations under 1. It is evident from the table 4.4 below that the reliability practices perceived by the respondents as medium category. Results further showed a mean (3.91) and standard deviation dimension of reliability (0.73). For which the item "I have been shown special attention by the hospital staff" has the highest score (3.95) and the item "The diagnosis results given by the medical staff are dependable" has the lowest score (3.87) and the other three (RD-1, RD-3 and RD-4) have medium value that ranges from 3.88 to 3.94.

**Table 4. 4: Descriptive Analysis on Reliability**

<b>Respondents' responses on Reliability</b>				
<b>Code</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>RD 1</b>	I feel confident when receiving medical service.	194	3.93	0.72
<b>RD 2</b>	The diagnosis results given by the medical staff are dependable.	194	3.87	0.74
<b>RD 3</b>	The hospital stuffs follow the correct medical service	194	3.94	0.77

	procedures in addressing health service.			
<b>RD 4</b>	The hospital staff shows due care and interest to address my health problems.	194	3.88	0.70
<b>RD 5</b>	I have been shown special attention by the hospital staff.	194	3.95	0.72
	<b>The Overall Mean and SD</b>		<b>3.91</b>	<b>0.73</b>

**Source: Researcher's Own Survey Findings (2024)**

In general the respondents concurred that the medical service they receive is reliable, but they also argue that there is still the need for continues improvement of the service quality in the given hospital in the area of providing services at the time, problem solving capability, on error-free records and to get things right the first time . Yousapronpaiboon et al., (2013) revealed that SERVQUAL‘five latent dimensions had a significant influence on overall service quality and that reliability had the most influence; followed by empathy and responsiveness.

#### **4.4.3. Responsiveness Dimension**

Responsiveness was the other dimension and that focuses on the willingness to help customers and provide prompt service. Respondents were requested to rate their perception based on hospital has effective (functional) equipment to put on service, personal in the hospital tell exactly when services will be performed.

**Table 4. 5: Descriptive Analysis on Responsiveness**

	<b>Respondents' responses on responsiveness</b>			
<b>Code</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>RPD 1</b>	I feel my concerns are addressed in timely manner.	194	3.90	0.75
<b>RPD 2</b>	The hospital employees are quick to assist me when I need help.	194	3.92	0.78
<b>RPD 3</b>	The hospital employees provide timely response to my request.	194	3.90	0.72
<b>RPD 4</b>	Service provider explains the service to me very clearly.	194	3.91	0.76
	<b>The Overall Mean and SD</b>		<b>3.9</b>	<b>0.75</b>

**Source: Researcher's Own Survey Findings (2024)**

The evaluation on Table 4.5 above focused on the interviewee reflection on their perspective on to what extent the dimension of responsiveness is implemented at Yanet Surgical and Internal Medicine Centre. ‘The hospital employees are quick to assist me when I need help’ has the highest mean value of 3.92 and S.D of 0.78 and the questions ‘I feel my concerns are addressed in timely manner and The hospital employees provide timely response to my request the least mean value with 3.90 each. From the result obtained, it is apparent that the

customers have good level of satisfaction on the responsiveness of the hospital employees to address their questions and problems.

#### 4.4.4. Empathy dimension

Empathy was the next and other important dimension and that defines how much of an Individualized attention the firm provides to its customers.

**Table 4. 6: Descriptive Analysis on Empathy**

<b>Respondents' responses on Empathy</b>				
<b>Code</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>EPD 1</b>	I feel employees listen to my concern carefully.	194	3.91	0.70
<b>EPD 2</b>	I feel employees of the health center genuinely care about my well-being.	194	3.88	0.71
<b>EPD 3</b>	Employees show understanding and compassion when I am distressed.	194	3.90	0.72
<b>EPD 4</b>	Employees make me feel valued as a patient.	194	3.89	0.71
<b>The Overall Mean and SD</b>			<b>3.89</b>	<b>0.71</b>

**Source: Researcher's Own Survey Findings (2024)**

Table 4.6 it was measured by 4 items. The assessment focused on reflecting the consumer perspective to what extent empathy dimension is implemented at Yanet Surgical and Internal Medicine Centre. From table 4.6 that respondent' have perceived empathy practices as good category. Statistical analysis revealed that empathy dimension with mean (3.89) and S.D (0.71). Where the item — I feel employees listen to my concern carefully' has the highest mean which is (3.91), and the item — I feel employees of the health center genuinely care about my well-being ", has the lowest value which is (3.88). The study attributed the causes of good level of perceived empathy practices at YSIMC positively affected the provision of caring and individualized attention to consumers. Thus, the hospital needs to keep up informing and training its personnel as they need to provide or give personal attention, especially on individual attention to customers.

#### 4.4.5. Employee Professional Capacity

Professional capacity is the duties, roles and responsibilities that an individual performs as a part of their profession. It encompasses the skills, knowledge and competencies required to effectively fulfill the requirements of the professional role. In this research this factor is represented by Staff qualifications and staff recruitment and retention.



## A. Staff qualification

**Table 4. 7: Descriptive Analysis on Staff qualification**

Respondents' responses on Staff qualification				
Code		N	Mean	Std. Deviation
STQ 1	The staffs possess the necessary skills to address my health needs.	194	3.84	0.75
STQ 2	I trust the professional qualification and skills of the health center staff.	194	3.83	0.75
STQ 3	The staff's knowledge about medical procedures and treatment is excellent.	194	3.81	0.72
STQ 4	The staff qualification positively affects the quality of care I receive at the health center.	194	3.88	0.71
The Overall Mean and SD			<b>3.84</b>	<b>0.73</b>

**Source: Researcher's Own Survey Findings (2024)**

Respondents were requested on professional competency of the Hospital health care providers, improving health status and the overall service quality of the hospital is remarkable. It was related to Patient satisfaction related to professional competency. Statistical analysis revealed Staff qualification has average mean value of (3.84) and standard deviation (0.73).

## B. Staff recruitment and Retention

This is the process and strategies organizations organizations use to attract, hire and keep skilled and capable employees.

**Table 4. 8: Descriptive Analysis on Staff recruitment and Retention**

Respondents' responses on Staff recruitment and Retention				
Code		N	Mean	Std. Deviation
SRR 1	The health center hires highly qualified and competent staff.	194	3.84	0.75
SRR 2	I don't notice frequent change of staff in the health center.	194	3.82	0.78
SRR 3	The staff appears satisfied with their job.	194	3.78	0.79
SRR 4	The health center effectively communicates any change in staff that may affect my care.	194	3.88	0.72
The Overall Mean and SD			<b>3.83</b>	<b>0.76</b>

**Source: Researcher's Own Survey Findings (2024)**

Respondents were requested on professional competency of the Hospital health care providers with respect to the organizations staff recruitment and retention and their response showed a mean value of 3.83 and S.D of 0.76. To this respect the customers response to the research question ‘The health center effectively communicates any change in staff that may affect my care’ had the highest value with a mean value of 3.88 and SD of 0.72 and ‘The staff appears satisfied with their job’ had the lowest value with mean 3.78 and SD 0.79 This implies that customers may appreciate consistent care from familiar and competent staff, leading to better relationships and trust and the customers also believe that well-recruited and trained staff are often more skilled and knowledgeable, resulting in higher quality care and accurate diagnosis.

#### 4.4.6. Application of Modern technology

Modern technology has significantly transformed the health centers improving patient care, operational efficiency and overall health outcomes. In this research application of modern technology in YSIMC assessed in terms of use of Electronic Health Records and Modern Medical Equipment.

#### A. Use of Electronic Health Records

**Table 4. 9: Descriptive Analysis on Use of Electronic Health Records**

<b>Respondents’ responses on Use of Electronic Health Records</b>				
<b>Code</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>EHR 1</b>	The electronic health record makes scheduling and managing appointments more convenient.	194	3.90	0.74
<b>EHR 2</b>	I feel more confident in my healthcare providers decisions because of my historical medical record is available through the electronic health record system.	194	3.87	0.70
<b>EHR 3</b>	I trust that my personal health information is secure with the electronic health record system.	194	3.88	0.72
<b>EHR 4</b>	I am satisfied with the overall electronic health record system provided by the health center.	194	3.85	0.71
	<b>The Overall Mean and SD</b>		<b>3.87</b>	<b>0.71</b>

**Source: Researcher’s Own Survey Findings (2024)**

Regarding the question asked about impact of electronic health record on service quality of the health center it is found to have an average mean value 3.87 and SD 0.71. This implies that the fact that the health center applied electronic health record system ensured accurate and up-to-date information to be accessed easily, facilitated seamless sharing of patient information among different departments of the health center to improve coordination and continuity of care, enhanced communication with health providers and manage appointments

leading to greater patient satisfaction and alert for potential medication interactions and allergies, which help prevent adverse events and enhance patient safety.

## B. Use of Advanced Medical Equipment

The impacts of using advanced medical equipment on service quality of health centers can be multifaceted. In this research it has been addressed using the four questions in table 4.10.

**Table 4. 10: Descriptive Analysis on Use of Advanced Medical Equipment**

Respondents' responses on Use of Advanced Medical Equipment				
Code		N	Mean	Std. Deviation
ME 1	The presence of advanced equipment reduces the waiting time for many medical tests and results.	194	3.90	0.75
ME 2	I feel more confident in the treatment I receive at this health center because of advanced equipment available.	194	3.92	0.78
ME 3	The advanced medical equipment at this health center makes me feel that the facility is up-to-date with the latest healthcare technology.	194	3.90	0.72
ME4	The use of advanced medical equipment in this health center improves the overall efficiency of the healthcare service.	194	3.93	0.68
The Overall Mean and SD			<b>3.91</b>	<b>0.73</b>

**Source: Researcher's Own Survey Findings (2024)**

Regarding the question asked about impact of use of Advanced Medical Equipment on service quality of the health center it is found to have an average mean value 3.91 and SD 0.73. From the four questions asked 'The use of advanced medical equipment in this health center improves the overall efficiency of the healthcare service' scored highest value with mean of 3.93 and SD of 0.68. From this, it can be concluded that advanced medical equipment can provide more accurate and detailed information, better diagnosis and treatment plan, effective and less invasive treatment options, and increase the overall efficiency of the health care center through streamlining work flows and reducing the time required for various procedures.

### 4.4.7. Service Price

Service price refers to the amount of money charged by a provider for the delivery of service. In context of health center, service price encompasses the fees patients pay for various medical services, treatments, consultations and procedures. The service price can be influenced by factors such as the complexity of the service, the expertise of the healthcare

professionals, the quality of facility, market demand and operational cost. In this research the service price of the health center is valued to service quality of the center and customer satisfaction of the service quality in relation to the price required.

**Table 4. 11: Descriptive Analysis on Service price**

	<b>Respondents' responses on Service price</b>			
<b>Code</b>		<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>SP</b>	The quality of service at this health center justifies the price.	194	2.51	0.87

**Source: Researcher's Own Survey Findings (2024)**

Respondents were requested on price of the health care system with respect to the service quality of the health center and their response had a mean value of 2.51 (which is the least of the other variables) and SD of 0.87. This implies that the overall service quality of the hospital is remarkable but the service price required by the center is a bit expensive.

#### **4.5. Results of Inferential Statistics**

In this part, the inferential statistics findings were displayed. Pearson's Correlation Coefficient and Multiple Regression Analyses were conducted in order to achieve the study's goals. Conclusions and decisions about the research hypothesis were generated with the use of these statistical approaches.

##### **4.5.1. Pearson Correlation Analysis**

The strength of a linear relationship between two variables can be assessed statistically using correlation analysis. According to Table 4.12's correlation results, there is a strong positive association between the independent and dependent variables. Following is a detailed discussion of the correlation analysis's findings:

The coefficient of correlation between Employee Capacity (EC) and Service Quality (SQ), which is displayed in Table 4.12 below, was 0.808, indicating a significant association at the 0.01 or 1% level of significance. This strong positive relationship between the two variables implies that as the employee capacity increases (e.g. through training, skill development or increased staffing), the service quality tends to improve correspondingly. The findings of this study were consistent with research by Garavan et al. (2020).

**Table 4. 12: Correlation Coefficient Matrix**

<b>Correlations</b>				
	<b>SQ</b>	<b>EC</b>	<b>AMT</b>	<b>SP</b>
<b>SQ</b>	1			
<b>EC</b>	.808**	1		
<b>AMT</b>	.911**	.791**	1	
<b>SP</b>	.838**	.699**	.825**	1
**. Correlation is significant at the 0.01 level (2-tailed).				
SQ = Service Quality, EC = Employee Capacity, AMA = Application of Modern Technology, SP = Service Price				

**Source: Results of Own Survey Data (2024)**

Another variable employed in the study was Application of Modern Technology (AMT). The coefficient of correlation between Application of Modern Technology (AMT) and Service Quality (SQ) is 0.911, which specifies that there is a very strong and positive association between Application of Modern Technology and Service Quality and the relationship is significant at 0.01 or 1% level of significance as shown in Table 4.12 above. This implies that use of modern technology in Yanet Surgical and Internal Medicine Centre increases (through the implementation of electronic health records, advanced diagnostic tools telemedicine etc.), the quality of services provided also tends to improve significantly. This finding is consistent with that of Kashif et al. (2020).

According to Table 4.12 above, the Service Price (SP) and Service Quality (SQ) was 0.838. According to this graph, there is a substantial (1% level of significance) association between Service Quality at Yanet Surgical and Internal Medicine Centre and Service Price. This might suggests that as higher-priced service are associated with better resources, more skilled staff, advanced technology or better overall patient care. However, while this strong correlation suggests a relation, it does not confirm causation. Other factors could influence both service price and quality. This result is not consistent with that of Kimanzi (2014), which shows price has weak associations with service quality with a value of 0.04.

#### **4.5.2. Multiple Linear Regression Analysis**

In this study, multiple linear regression analysis was used to assess the predictive power of the variables under investigation in order to ascertain the influence of the relationship between the independent variables of training and development dimensions (i.e. Employee capacity, Application of modern technology, and Service price) on the dependent variable, which is service quality of Yanet Surgical and Internal Medicine Centre. SPSS version 23 was used to code, enter, and compute the multiple regression measurements. Through the use of independent and dependent variables, multiple regression analysis can explain or forecast variance in a dependent variable. The degree of this effect on the dependent variable is determined by the coefficient of determination, also known as R square (Hair et al., 2010). The higher the coefficient, the stronger the effect of the independent variable on the dependent variable. Using the coefficients or beta weights for each independent variable, the researcher can compare the relative significance of each independent variable. This study presents the unstandardized and standardized coefficients for various regression equations. However, remarks are based on unstandardized coefficients for each variable.

##### **4.5.2.1. Tests of Multiple Regressions Assumptions**

**Before applying the regression model, the aforementioned presumptions were verified:**

##### **Sufficient Sample Size and Separate Observations**

The minimal sample size for multiple regression was established as  $50 + 8 * 3 = 50 + 32 = 74$ , with  $m = 3$  because there were 3 independent variables, according to Tabachnick and Fidell (2007),  $N > 50 + 8 * m$  (where  $m$  is the number of independent variables). As a result, it was concluded that 194 respondents would be a suitable sample size for regression analysis to examine the study's assumptions. The researcher demonstrated that the observations were independent by having a large number of respondents complete the questionnaires in order to obtain tolerable variations in responses.

##### **Detecting Outliers**

Given that it uses statistics, multiple regressions are particularly susceptible to outliers (very high or low scores). When screening the raw data, the researcher used Skewness and Kurtosis to look for extreme results. The five structures' Kurtosis and Skewness exhibited normal behavior. The values of Skewness and Kurtosis in Table 4.13 below are between -1 and +1, indicating that there were no outliers or risky values that would have jeopardized the validity of the analysis.

**Table 4. 13: The Study Variables Skewness and Kurtosis Values**

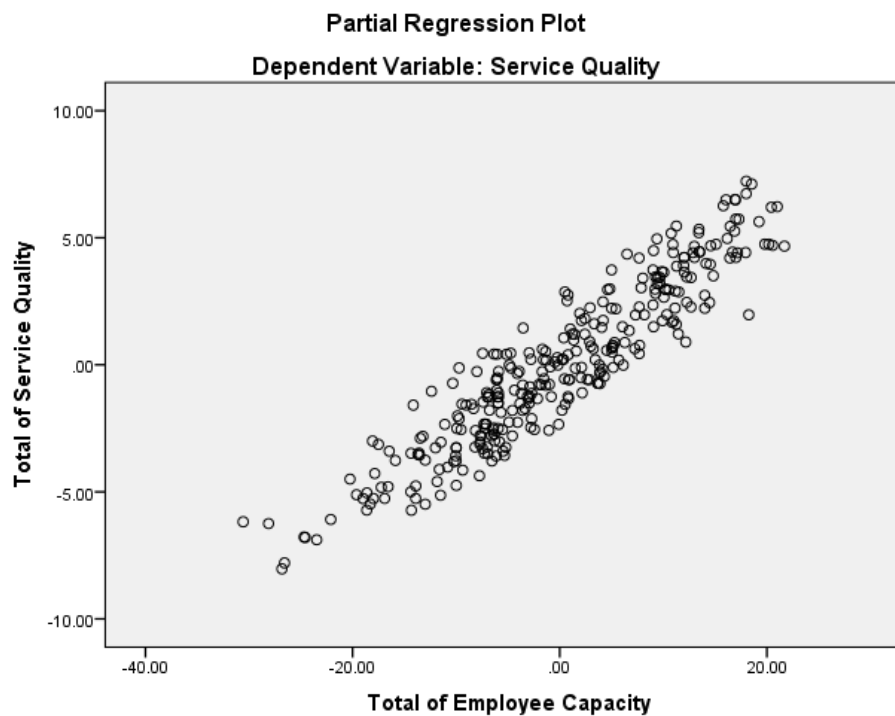
Study Variables	Skewness	Kurtosis
Employee Capacity	-0.110	-0.979
Application of Modern Technology	-0.136	-0.647
Service Price	-0.116	-0.785
Service Quality	0.060	-0.579

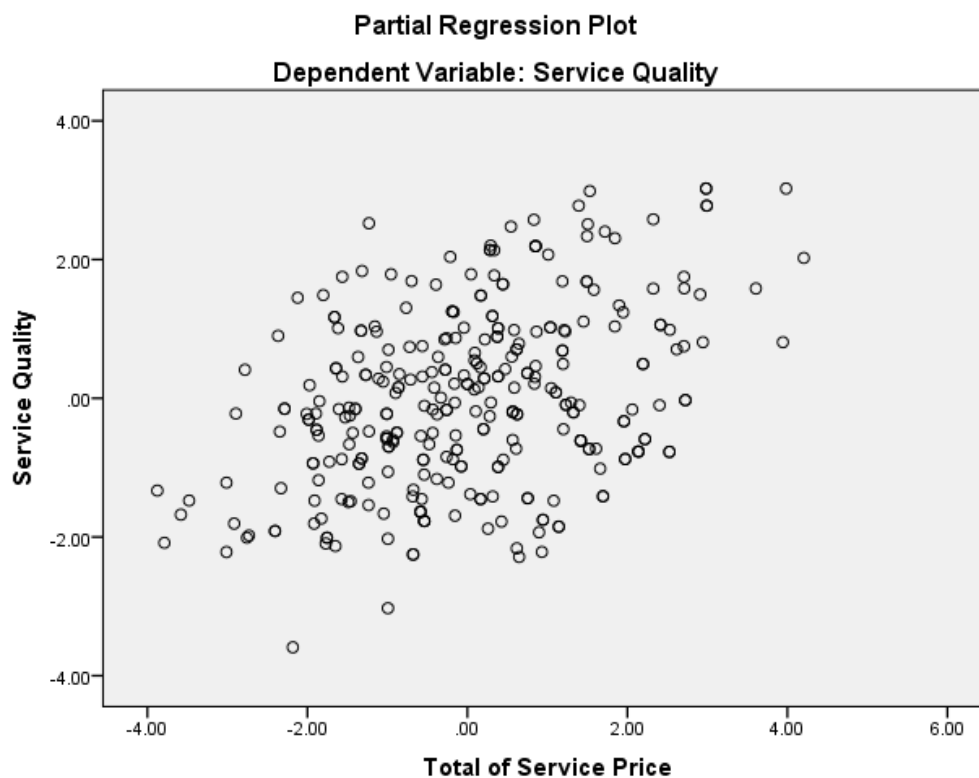
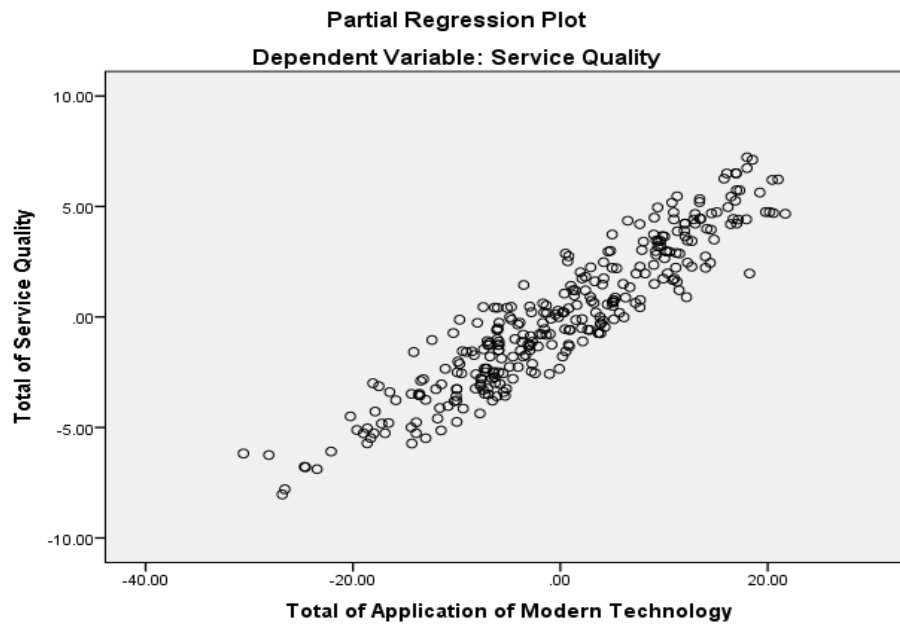
**Source: Results of Own Survey Data (2024)**

### **Homoscedasticity test**

The researchers concluded that the residuals have equal variances since the scatterplot's little circles in Figure 4.1 below showed no discernible pattern and were distributed randomly.

**Figure 4. 1: Scatterplot Plot of the Regression Model**





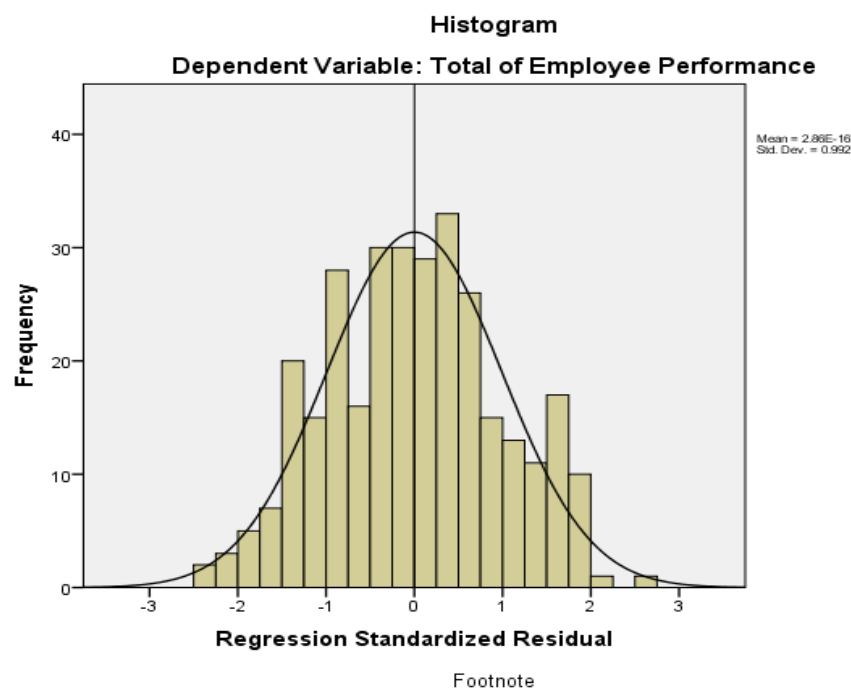
**Source: Results of Own Survey Data (2024)**

### **The Normality Test**



Since the mean value was about close to zero (0) or (mean =  $-1.84\text{E-}15$ ) and the standard deviation value was roughly close to one (1) or (Std. Dev. = 0.990), the histogram in Figure 4.2 below suggested that the data were acceptable for normalcy.

**Figure 4. 2: Histogram of the Regression Model**



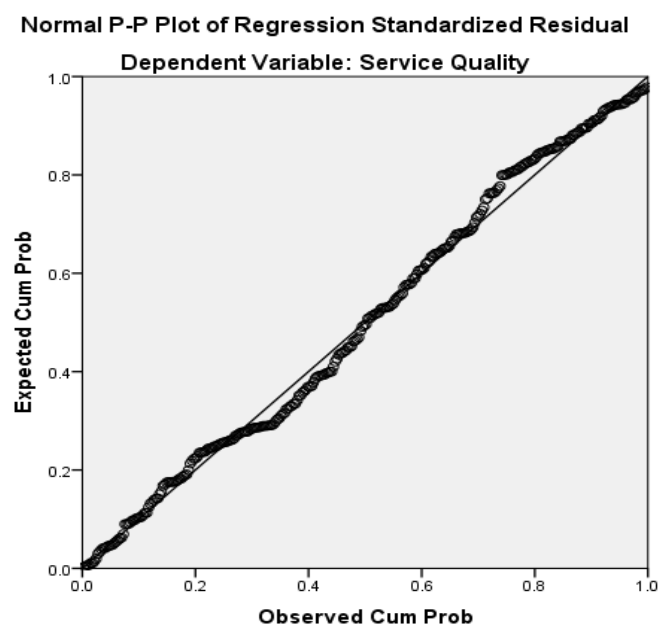
**Source: Results of Own Survey Data (2024)**

### **Tests for Linearity**

The little circles in the normal Predicted Probability (P-P) plot in Figure 4.3 showed that they were close to or followed the normality or the diagonal line, indicating the linearity of the

data. Linearity is defined as the relationship between the predictor variables and the outcome variable in the regression having a straight line, or when the little circles in the P-P plot are close to the diagonal line.

**Figure 4. 3: The Normal P-P Plot of the Regression Model**



**Source: Results of Own Survey Data (2024)**

### **A Multicollinearity Test**

Multicollinearity happens when the research predictor variables are strongly correlated with one another. Association coefficients must be less than 0.90 to qualify as multicollinear, while tolerance and Variance Inflation Factor (VIF) values must be greater than 0.1 and less than 10 to qualify as multicollinear, respectively (Hair et al., 2010). According to Tables 4.12

above, the correlation coefficients for each predictor variable were less than 0.90. Additionally, as shown in Tables 4.14 below, all of the model's results had a tolerance value greater than 0.1 and a VIF lower than 10, indicating that the survey data did not exhibit any discernible multicollinearity and that the study's predictor variables did not exhibit strong correlations with one another.

**Table 4. 14: Multicollinearity Test**

Variables	Tolerance	VIF
Employee Capacity	0.347	2.879
Application of Modern Technology	0.220	4.550
Service Price	0.289	3.463

**Source: Results of Own Survey Data (2024)**

Three predictors of multiple linear regression models were put forth in an effort to determine the most effective collection of predictors of Service Quality (SQ). Employee Capacity (X1), Application of Modern Technology (X2), and Service Price (X3), were the three predictor variables. The proposed multiple linear regression models' equation was as follows:

$$Y(SQ) = \beta_0 + \beta_1(X1) + \beta_2(X2) + \beta_3(X3) + \varepsilon$$

**Where:  $\beta_0$  = Constant,  $\varepsilon$  = Error**

As shown in the regression model summary of Table 4.15 below, the R-squared and Adjusted R-squared statistic of the model were 0.899 or (89.9%) and 0.897 or (89.7%) respectively. The explanatory power of the independent variables such as Employee Capacity, Application of Modern Technology, and Service Price on the changes in dependent variable (Service quality) was 89.9%. The result of Adjusted R-squared shows that changes on dependent variable (SQ) was explained 89.7% by the independent variables employed in this study. As a result, other factors beyond the scope of this model or study were responsible for the remaining 10.3% of the changes in the dependent variable (SQ).

**Table 4. 15: Model Summary of the Regression Analysis**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.948 <sup>a</sup>	.899	.897	1.47765
a. Predictors: (Constant), Employee capacity, application of modern technology, service				

price
b. Dependent Variable: Service quality

**Source: Results of Own Survey Data (2024)**

The ANOVA result in Table 4.14 below shows the F-statistics and probability (F-statistics) for the regression. At a 1% level of significance, the F-statistic's null hypothesis which states that the Adjusted R-squared is equal to zero was rejected. F-value of 0.000 shows strong statistical significance which enhanced the reliability and validity of the model. This shows that the calculated linear regression model line's slope is greater than zero, demonstrating that there is a linear relationship between all four predictor variables (i.e. Employee capacity, application of modern technology, and service price) and Service Quality (SQ). This indicates that the three predictor variables significantly predict Service Quality (SQ).

**Table 4. 16: Results of the Analysis of Variance (ANOVA)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
<b>1</b>	Regression	3672.586	3	918.146	420.503	.000 <sup>b</sup>
	Residual	412.672	189	2.183		
	Total	4085.258	193			
a. Dependent Variable: Service Quality (SQ)						
b. Predictors: (Constant), EC, AMT, SP						

**Source: Results of Own Survey Data (2024)**

Based on the commonly used multiple regression method (Table 4.17 below), it was determined that all three independent or predictor factors were significant in explaining Service Quality (SQ). Or the variation in the dependent variable Service Quality (SQ) was strongly influenced by all the independent variables.

**Table 4. 17: Analysis of the Regression Model Coefficients**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
<b>1</b>	(Constant)	-4.303	.878		-4.900	.000

	EC	.172	.050	.135	3.438	.001
	AMT	.203	.021	.473	9.587	.000
	SP	.153	.044	.151	3.516	.001
a. Dependent Variable: Service Quality (SQ)						
EC = Employee Capacity, ATM = Application of Modern Technology, SP = Service Price						

**Source: Results of Own Survey Data (2024)**

The regression coefficients in Table 4.17 above were considered significant at the 95% level, yielding an alpha value of 5%. As a consequence, the unstandardized beta coefficients for employee capacity, application of modern technology and service price were 0.172, 0.203, and 0.153, accordingly from the regression result.

According to Table 4.17 above, the predicted model looked like this:

$$Y(SQ) = -4.303 + 0.172X_1 + 0.203X_2 + 0.153X_3$$

The unstandardized beta coefficients of the regression model in Table 4.17 above indicated that Application of Modern Technology have the largest positive and significant effect on Service Quality ( $\beta_2 = 0.203$ ,  $t = 9.587$ ,  $p < 0.05$ ). This means that when application of modern technology amplified by one point, service quality will increase by 0.509. This suggests that Yanet Surgical and Internal Medicine Centre managers need to work on investing on and application of modern technology more so as to increase the quality of their service. Secondly, followed by the unstandardized beta coefficients of Employee Capacity with ( $\beta_1 = 0.172$ ,  $t = 3.438$ ,  $p < 0.05$ ), which suggested that Employee Capacity has a positive and significant effect on Service Quality. This suggests that a unit rise in employee capacity will result a 0.172 growth in service quality. In the third place was Service Price with ( $\beta_3 = 0.153$ ,  $t = 3.516$ ,  $p < 0.05$ ) was the third highest positive and significant value to have an effect on Service Quality. It means that one unit rise in service price was followed by 0.153 unit growths in service quality. This is due to the fact that as the health center generate more revenue it will recruit and retain quality employees fulfilling their financial requirements and also invest on more modern service giving technologies.

#### 4.6. Hypothesis Test Results

The Pearson correlation model and multiple linear regression models tested the three hypotheses of this research paper concerning Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre, according to the regression tables above, the p-value was used to determine if the hypothesis is true or false and was based on the beta and correlation coefficient with a 95 percent confidence level.

### **Hypothesis - 1**

H1: Employee Capacity has a positive and significant effect on Service Quality.

The unstandardized beta coefficient with ( $\beta_1 = 0.172$ ,  $t = 3.438$ ,  $p < 0.05$ ) indicated that Employee Capacity had a positive and significant effect on Service Quality. The regression analysis as presented in Table 4.17 above supports this finding. It shows that one unit rise in Employee Capacity is followed by a 0.172 unit growth in Service Quality. As a result, the findings do not support the null hypothesis, forcing the researcher to accept alternative hypothesis number one, which postulates that Employee Capacity has a favorable and significant impact on Service Quality at Yanet Surgical and Internal Medicine Centre. The findings of this study are consistent with those of Garavan et al. (2020) and Said et al. (2022) studies.

### **Hypothesis – 2**

H2: Application of Modern Technology has a positive and significant effect on Service Quality.

The unstandardized beta coefficient with ( $\beta_2 = 0.203$ ,  $t = 9.587$ ,  $p < 0.05$ ) indicated that Application of Modern Technology has a positive and significant effect on Service Quality, and the regression analysis as presented in Table 4.17 above supports this finding. This implies that for every unit rise in Application of Modern Technology, Service Quality increases by 0.203 units. Because of this, the researcher is compelled to accept alternative hypothesis number two, which postulates that Application of Modern Technology has a favorable and significant impact on Service Quality at Yanet Surgical and Internal Medicine Centre. The results do not support the null hypothesis. This result is also in line with research conducted in the past by Raza (2014) and Kashif et al. (2020).

### **Hypothesis – 3**

H3: Training Delivery has a positive and significant effect on Organizational Performance.

The unstandardized beta coefficient with ( $\beta_3 = 0.153$ ,  $t = 3.516$ ,  $p < 0.05$ ) indicated that Service price has a positive and significant effect on Service Quality. The regression analysis as presented in Table 4.17 above supports this finding. It implies that for every unit increase in Service price, Service Quality increases by 0.153 units. As a result, the findings do not support the null hypothesis, forcing the researcher to embrace alternative hypothesis number

three, which postulates that Training Delivery has a favorable and significant impact on Service Quality at Yanet Surgical and Internal Medicine Centre. This result is also in line with research conducted in the past by Firehiwot (2017) and Rasheed and Awan (2021), among others.

**Table 4. 18: Summary of Hypothesis Testing**

<b>Hypothesis</b>	<b>B-Value</b>	<b>P-value</b>	<b>Expected Effect</b>	<b>Result</b>	<b>Decision Accepted/Rejected</b>
<b>H1:</b> Employee Capacity has a positive and significant effect on Service Quality.	0.172	0.001	Positive	Positive	Accepted
<b>H2:</b> Application of Modern Technology has a positive and significant effect on Service Quality.	0.203	0.000	Positive	Positive	Accepted
<b>H3:</b> Service Price has a positive and significant effect on Service Quality.	0.153	0.001	Positive	Positive	Accepted

**Source: Results of Own Survey Data (2024)**

## **CHAPTER FIVE**

### **5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This chapter contains of the deductions drawn from the analysis part and the suggestions forwarded by the investigator so as to advance the Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre.

#### **5.1. Summary of Major Findings**

In examining the factors affecting healthcare service quality and performance at Yanet Surgical and Internal Medicine Centre, this study focused on three critical independent variables: employees' capacity, application of modern technology, and service price. The major findings of the research are summarized as follows: The study found that higher qualifications and continuous professional development among staff significantly enhance healthcare service quality. Patients reported higher satisfaction and trust in the care provided by well-qualified healthcare professionals. Effective recruitment strategies were identified as essential for maintaining a high standard of care. The ability to attract skilled and competent healthcare professionals positively impacts service quality and performance. Retention of experienced staff was found to be critical. High turnover rates lead to disruptions in service delivery and increased workload on remaining staff, negatively affecting patient care and satisfaction. Implementing policies that enhance job satisfaction and professional growth opportunities are crucial for retaining skilled employees. As for Application of Modern Technology; the adoption of electronic health record (EHR) systems significantly improves the accuracy and efficiency of patient data management. The study found that EHR systems enhance communication among healthcare providers, reduce errors, and improve overall patient care quality and the use of advanced medical equipment was linked to improved diagnostic accuracy and treatment outcomes. Patients reported higher confidence in the healthcare services provided when modern medical technologies were utilized, contributing to increased satisfaction and perceived quality of care. With respect to price of healthcare services is a significant determinant of patient satisfaction. The study revealed that while higher prices are often associated with better quality care, there is a limit beyond which services are perceived as too expensive, leading to dissatisfaction.

These findings underscore the importance of investing in the qualification, recruitment, and retention of healthcare staff, effectively implementing modern technology, and maintaining



transparent and fair pricing strategies to improve healthcare service quality and performance at Yanet Surgical and Internal Medicine Centre.

## **5.2. Conclusions**

The SERVQUAL model is suitable for service quality dimensions in creating quality health care. This is because one cannot use a generic SERVQUAL model in this context since it may not be adequate to assess service quality in health sector and will not provide a good measure of customers satisfaction and factors. A good service quality is considered as one which meets or exceeds consumer's expectation of the service.

Assessing the Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal medicine Centre, was the goal of this study. The researcher came to the conclusion that the employee capacity, application of modern technology, and service price had an impact on service quality in the studied region.

The correlation investigation result shows a strong positive and significant relationship between the independent variables (i.e., employee capacity, application of modern technology, and service price) and the dependent variable (i.e., service quality) in Yanet Surgical and Internal medicine Centre. Application of modern technology and Service Quality had the strongest and most significant association coefficient ( $r = 0.911$ ). Following Application of modern technology and Service Quality ( $r = 0.834$ ) and relationship between service price and service quality assessment was the weakest and most positive. Therefore, the study concluded that at a 1 percent level of significance it was found that employee capacity, application of modern technology, and service price have a positive and significant association with service quality in the study area.

The regression analysis between the independent variables (i.e. employee capacity, application of modern technology, and service price) and dependent variable (i.e. service price) in Yanet Surgical and Internal medicine Centre, showed that the strongest contribution to explaining the dependent variable (i.e. service quality) was made from application of modern technology, followed by employee capacity, service price respectively. This shows that the service price have a least effect on the service quality. The value of adjusted  $R^2$  is 0.897, shows that 89.7% of the deviation of service price in Yanet Surgical and Internal medicine Centre was explained by the three factors that can affect the service quality. The remaining 10.3% was caused by other variables, which are outside the purview of this investigation. The study concludes that the three health care service quality determining factors— employee capacity, application of modern technology, and service price —have a

positive and significant impact on the service quality in Yanet Surgical and Internal medicine Centre, the alternative hypothesis was accepted and the null hypothesis was rejected.

### **5.3. Recommendations**

Based on the findings of the study, the following recommendations are indicated. The Tangible component of service quality suggests that the hospital is in a better position in furnishing modern health care machines and creating a clean hygienic environment conducive to patients. To sustain this quality services the hospital has to keep on promoting technology-driven practices in order to maintain its image and get the returns. In addition, the hospital managements should exert even more of their efforts on improving the tangibility, improve physical facilities, equipment, and appearance of health care providers of an organization by improving the hospital service facilities to be visually net appealing of the hospital, employees should get time management skills and work scheduling practices, procuring standard and modern looking equipment. Hospitals have to follow the standards of hospital implementation guide lines of Ethiopia in order to give 24 hour pharmacy service, convenient service hour, optimal amount of waiting time and other service related issues should be strengthened and continued in the future.

### **5.3. Suggestions for Further Research**

The research suggested themes that could be studied in different health institution in Ethiopia. We recommend that a similar research ought to be done in a different sub country where there have been health care providers strikes and in other health institution which gives service free (e.g. Abebach gobena maternity hospital) in order to dig out other factors that affect service quality beside from price .Further, future studies should consider other factors that can affect delivery of service quality in health care and which were not considered in this study. A comparative study on private and public health facilities may be conducted to ascertain the delivery of quality health care in Ethiopia.

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## APPENDICES

### Appendix I: Research Questionnaires

St. Merry University

College of Business and Economics

Department of Management

Greetings, responder

Fikru Ababu, a St. Merry University student, is conducting this research to help meet some of the criteria for an MBA master's degree. "Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre." is the title of the study I'm working on right now.

I cordially want to inform you that you were one of the most excellent and trustworthy responders chosen for this survey.

To offer a fair assessment of the current state of Factors affecting Healthcare Service Quality and Performance at Yanet Surgical and Internal Medicine Centre, kindly helps me by providing accurate and thorough information.

The survey is fully anonymous, and your participation is completely voluntary.

Last but not least, I hereby assure you that the data you submit with me will be kept private and used for academic purposes. The identities of those who responded will not be published or disclosed to anyone, and no individual's responses will be identified as such. All data will only be utilized for academic reasons.

Sincere Thanks,

Fikru Ababu

Instructions

1. No need to write your name down
2. For statements that use a Likert scale, mark your selection in the corresponding block with a tick mark (✓), and for multiple-choice questions, circle the letter of your choice.

Keep in mind that you can reach the researcher at the following addresses if you have any further questions, commentaries, or recommendations:

Name: Fikru Ababu

Mobile: 09

E-mail: @gmail.com

I really appreciate for giving me your time and valuable assistance in advance.

## **Appendix II: Questionnaire for Medical Doctors.**

### **SECTION A: Demographic information**

#### **1. a) Please indicate your gender**

Male ( )

Female ( )

#### **b) Age bracket**

26 – 30 years ( )

31 – 35 years ( )

36 – 40 years ( )

41 – 45 years ( )

46 – 50 years ( )

51-55 years ( )

55-60 years ( )

Above 60 ( )

#### **b) How long have you served as a medical doctor in your current position?**

i) Less than one year ( )

ii) 1-5 years ( )

iii) 6-10 years ( )

iv) 11-15 years ( )

v) 16-20 years ( )

vi) 21-25 years ( )

vii) 26-30 years ( )

viii) Over 30 years ( )

#### **2. What are your professional qualifications?**

Diploma Medicine ( )

Bachelors Medicine ( )

Masters Medicine ( )

Any other (specify)\_\_\_\_\_

.....

## SECTION B: Health services Quality

### 1. Reliability

S.N	Question	1	2	3	4	5
1	I feel confident when receiving medical service.					
2						
3	The diagnosis results given by the medical staff are dependable.					
4	The hospital staffs follow the correct medical service procedures					
5	in addressing health service.					
	The hospital staff shows due care and interest to address my health problems.					
	I have been shown special attention by the hospital staff.					

### 2. Responsiveness Dimension

S.N	Question	1	2	3	4	5
1	I feel my concerns are addressed in timely manner.					
2						
3	The hospital employees are quick to assist me when I need help.					
4	The hospital employees provide timely response to my request.					
	Service provider explains the service to me very clearly.					

.....

### 3. Empathy dimension

S.N	Question	1	2	3	4	5
1	I feel employees listen to my concern carefully.					
2	I feel employees of the health center genuinely care about my well-being.					
3	Employees show understanding and compassion when I am distressed.					
4	Employees make me feel valued as a patient.					

### SECTION C: Employee Professional Capacity

#### 1. Staff qualification

S.N	Question	1	2	3	4	5
1	The staffs possess the necessary skills to address my health needs.					
2	I trust the professional qualification and skills of the health center staff.					
3	The staff's knowledge about medical procedures and treatment is excellent.					
4	The staff qualification positively affects the quality of care I receive at the health center.					



## 2. Staff Recruitment and retention

S.N	Question	1	2	3	4	5
1	The health center hires highly qualified and competent staff.					
2						
	I don't notice frequent change of staff in the health center.					
3						
4	The staff appears satisfied with their job.					
	The health center effectively communicates any change in staff that may affect my care.					

## Section D: Application of Modern Technology

### 1. Use of Electronic Health Records

S.N	Question	1	2	3	4	5
1	The electronic health record makes scheduling and managing appointments more convenient.					
2						
	I feel more confident in my healthcare providers decisions because of my historical medical record is available through the electronic health record system.					
3						
4	I trust that my personal health information is secure with the electronic health record system.					
	I am satisfied with the overall electronic health record system provided by the health center.					

## 2. Use of Advanced Medical Equipment

S.N	Question	1	2	3	4	5
1	The presence of advanced equipment reduces the waiting time for many medical tests and results.					
2						
3	I feel more confident in the treatment I receive at this health center because of advanced equipment available.					
4	The advanced medical equipment at this health center makes me feel that the facility is up-to-date with the latest healthcare technology.					
	The use of advanced medical equipment in this health center improves the overall efficiency of the healthcare service.					

## Section D: Service Price

S.N	Question	1	2	3	4	5
1	The quality of service at this health center justifies the price.					