



Quality Management Practices and Performance: Where are we, and where we are headed? The Perspective of Public Healthcare Institutions in Kenya

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Abstract

The global economy's transformations have prompted public healthcare institutions in Kenya to adopt strategies to expand their markets, improve customer satisfaction, and enhance operational efficiency globally. The county government of Tharaka Nithi and the Kenyan national government have implemented initiatives to enhance public healthcare facilities, but their performance remains below the required standards. According to The World Health Organization reports Kenya's public healthcare institutions provided 75% unsatisfactory services to customers, while their services remained at 6.6% from 2017 to 2020. Therefore, the current study investigated the effect of quality management practices on the performance of public healthcare institutions in Tharaka Nithi County, Kenya. Specifically, the study examined the effect of customer focus and continuous improvement on the performance of public healthcare institutions in Tharaka Nithi County, Kenya. The study used Scorecard, Six Sigma theories as well as the upper echelon theory. The study embraced descriptive research design. The target population was eight hundred and eighty-three employees of public healthcare institutions in Tharaka Nithi County, Kenya. Stratified random sampling techniques were used as a sampling technique to select 275 respondents that were determined scientifically through a formula.

Primary data was collected using a structured self-administered questionnaire. A pilot test of twenty-eight respondents was conducted. The study instrument's reliability and validity were evaluated using Cronbach's alpha coefficient, with a threshold of 0.7 or higher. The collected data was analyzed using descriptive and inferential statistics, which were presented in the form of tables, charts, and graphs. The findings were that customer focus ($p < 0.05$) continuous improvement ($p < 0.05$) and top management commitment ($p < 0.05$) all had a significant effect on the performance of public healthcare institutions in Tharaka Nithi County, Kenya. The study concluded that total quality management practices are significant enablers of the organizational performance of an institution. The study recommended that employees working with public healthcare institutions in Tharaka Nithi County should be motivated to address customer inquiries promptly to improve the level of efficiency and effectiveness. The operational managers and all other heads of the functional areas in the public healthcare institutions in Tharaka Nithi County design their processes effectively for effective decision-making. Employees should be encouraged to use errors reported as the basis for further improvement in processes.

Keywords: Quality management practices, customer focus, continuous improvement, top management commitment and performance

Introduction

One of the most fundamental essences of the firm is to achieve the established goals and objective which is generally referred to as organizational performance. In a specific sense, organizational performance plays an instrumental role in enhancing and allowing the firm to meet the established goals which in turn results in improved and positive outcomes (Al-Aina & Atan, 2020). Organizational performance is the only way in which managers of an organization can assure owners that the firm is doing well in terms of the realization of the stated objectives. Organizational performance ensures that the firm effectively leverages the bundle of resources that are in place to ensure long-term success and the realization of its goals (Muhammed & Zaim, 2020).

Quality is an important parameter that customers working and operating in the modern and contemporary world should always seek to achieve. One of the widely established and documented means for measuring quality from an organizational point of view is the service quality model (SERQUAL) (Ranjith-Kumar, Ganesh & Rajendran, 2022). In this model, it is listed that service quality has its key elements and constituents being reliability, tangibility, timeliness as well as responsiveness among other attributes. An organization seeking to improve its overall performance

should always realize that superior quality is hinged on many issues, the key one being the quality management practices that an organization may have in place (Abbas & Kumari, 2021).

Globally, if the market's dynamism leads to steady fluctuations in customer expectations, it is imperative to implement a customer-centered business strategy, in which the value chain begins and ends with the customer, especially in developed countries like the United States (USA)(Guerola-Navarro, Gil-Gomez, Oltra-Badenes & Sendra-García, 2021). These transformations occurring in the global economy have inspired numerous firms from developed and developing nations to pursue tactics that will allow them to expand their market, and enhance customer satisfaction, and operational efficiency on a global level, especially in France (Ahammad, Basu, Munjal, Clegg & Shoham, 2021). The resource-based view details that the value of a firm's resources and capabilities lies in its ability to either decrease the firm's costs or enhance its revenues(Zhang, Khan, Lee& Salik, 2019; Cortes & Herrmann, 2021). Therefore, an organization incorporates quality management practices as capabilities that enable them to increase their performance (Hameed *et al.*, 2018).

Previous empirical studies like Jimoh, Oyewobi, Isa, and Waziri (2019), as well as Al-Shraah, Abu-Rumman, Al-Madi, Alhammad, and AlJboor (2022)documents that applying quality management practices, has the potential to enhance business results, increase consumer satisfaction, foster teamwork and improve management of employees within organizations. Additionally, Carpinetti and Martins(2019) put more emphasis on how organizations that implement quality management practices concentrate on the accomplishment and maintenance of superior outputs by employing management practices as inputs and quality performance as outputs.

Lavoie-Tremblay, Aubry, Richer, and Cyr (2018) emphasized that public health institutions have increasingly engaged stakeholders and on-the-job training as strategies to enhance their performance and efficacy in Nigeria. Evidence in Ghana by Essel (2020) indeed points out that quality management practices like customer focus, continuous improvement, and top management commitment are foundational blocs of a well-functioning and performing system and organization.

Locally in Kenya, Vision 2030 includes the health care system of the country as one of its essential components. As per the Kenya Health Policy 2014-2030, the Ministry of Health of the Kenyan Government collaborates with public hospitals to improve the provision of services and operations to the public. Healthcare services in Kenya are primarily provided and funded by the Ministry of Health (MoH). The public sector comprises 51% of Kenya's network of more than 4700 health facilities, while the private and

faith-based organizations account for 49%. The county hospitals serve larger populations within their respective regions. These hospitals offer a wider range of medical services, including surgery, emergency care, and specialist consultations. Health facilities must be equipped with utilities and designed to meet the needs of health care to guarantee universal health coverage (Kapologwe *et al.*, 2020).

Organization Performance

Organizational performance is the ability of an organization to efficiently utilize its resources and produce outputs that align with its objectives and are meaningful to its stakeholders (Leitão, Pereira & Gonçalves, 2019). The measurement of organizational performance serves as a crucial metric for both small and medium enterprises, as well as large organizations, in both developed and developing economies (Leitão *et al.*, 2019). It serves a critical function in the achievement of their respective objectives and goals. Leitão *et al.* (2019) asserted that the assessment of organizational performance is contingent upon a range of indicators, which are contingent upon factors such as the organization's industry, organizational structure, and the qualities of its products and services provided.

The majority of studies from strategic management relied on both financial/non-financial metrics, including profitability, customer satisfaction, return on investment, and market share, as performance indicators (Javeed & Lefen, 2019; Arokodare & Asikhia, 2020). This is in agreement with a study conducted by Kori, Muathe, and Maina (2020) which demonstrates that the adoption of balanced scorecard metrics that include financial as well as non-financial metrics perspectives is complementary when evaluating an organization's performance. Božić and Poola (2023) classify organizational performance indicators as effectiveness, which pertains to an organization's capacity to deliver optimal service or product within an efficient framework, and efficiency and financial viability. Ali *et al.*, (2021) reported that indicators of customer satisfaction have consistently proven to be reliable predictors of long-term organizational performance and stable, long-term cash flows.

In addition, several empirical studies in the healthcare sector have classified organizational performance measures based on resource utilization, operational efficiency, visibility, trust, and customer satisfaction (Lavoie-Tremblay *et al.*, 2018; Moses, Korir, Zeng, Musiega, Oyasi, Lu, Chuma & Di-Giorgio, 2021). However, some organizations measure organization performance in terms of market penetration, product/service quality, and customer satisfaction. It is essential to consistently conduct a thorough evaluation of the performance indicators within an organization, as they are

subject to dynamic shifts in response to changes within the competitive landscape (Moses *et al.*, 2021).

Nyambua (2018) classifies organizational performance indicators as effectiveness, which pertains to an organization's capacity to deliver optimal service or product within an efficient framework, and efficiency and financial viability. Mehralian (2022) reports that indicators of customer satisfaction have consistently proven to be reliable predictors of long-term organizational performance and stable long-term cash flows.

Within the public health care context, timeliness in service delivery and conflict resolution, efficiency, and the quality of services are important parameters that cannot be underscored as far as performance is concerned. Key customers in these institutions are patients who need an adequate level of attention to effectively address their specific needs and preferences. Thus, the parameters for measuring performance from a healthcare point of view employ timeliness, operational efficiency, and revenue generation (Muhammed & Zaim, 2020), which are the same indicators that shall be adopted in the present study.

Quality Management Practices

Quality management practices entail the systematic planning, implementation, and evaluation of quality initiatives within an organization to assure long-term success and sustainability (Abbas, 2020). Numerous authors have suggested frameworks and measures to effectively implement quality management practices, as indicated by recent literature (Ali, Hilman & Gorondutse, 2020; Ali & Johl, 2022). Liu *et al.*, (2021) emphasize the incorporation of quality management practices with measures like customer involvement, continuous improvement, employee involvement as well as top management commitment being evident. According to Al-Saffar and Obeidat (2020), quality management practices aim to establish a unique culture that is determined by the collective efforts of all members of the organization to satisfy the requirements and desires of customers at the lowest possible cost, effort, and time.

Al-Shraah *et al.* (2022) conceptualized quality management practices as employee precipitation, leadership and good vision, customer focus, and continuous improvements. Negron (2020) underscores the significance of an effective leader's critical role in cultivating a culture of continuous improvement and quality within healthcare institutions. The success of quality management practices initiatives is significantly influenced by their active involvement in the establishment of quality objectives, the provision of resources, and the promotion of accountability among staff members. Furthermore, Mutingi and Chakraborty (2021) propose a framework that

includes customer focus and continuous improvement that are aligned with strategic objectives to monitor progress and identify areas for improvement. The present study will specifically focus on three quality management practices customer focus, continuous improvement, and top management commitment. The justification for selecting these three measures of quality management is that they are relevant in the health sector. In this study, customers are taken the same as patients since the main focus will be on the healthcare sector. Customer focus is the only way through which an organization can gain and enhance its revenue and this is one of the basic goals that guide the operations of firms (Issauet *al*, 2023).

The second dimension of quality that will be a major focus in this study is continuous improvement which calls for regular stakeholder involvement as well as training of employees. It also requires an organization to regularly review its outcomes to ensure that they are well aligned with the overall strategic goals and objectives (Carpinetti & Martins, 2019). All these help an organization to achieve its established physical goals and objectives which in turn would inform the long-term competitive edge of the firm which then determines organizational performance (Jimoh et al. 2019).

Top management commitment is an important construct that cannot be underscored in an organization that seeks to provide quality services to customers. Top management can demonstrate its commitment to quality management of an organization through staff training, resource allocation, and quality planning (Sirma, Misoi&Omillo, 2019). Training of staff in quality assurance issues in an organization coupled with adequate budgetary allocations towards quality issues of an organization can go a long way to improve customer experiences. Incorporating quality objectives in the planning activities of an organization can also provide an important opportunity for an organization to realize its core objectives (Gachanja & Kinyua, 2021).

Public Healthcare Institutions

Healthcare institutions in Kenya are essential for providing medical services. These healthcare institutions are clustered into various levels, starting with dispensaries and health centers, at the grassroots level and progressing to county hospitals, regional referral hospitals, and national referral hospitals in key cities (Masaba *et al.*, 2020). At the community level, dispensaries and health centers are the first point of contact for many Tharaka Nithi county residents, providing basic medical services such as immunizations health care for mothers and infants services, and treatment for prevalent illnesses. These facilities are critical in rural regions where access to more advanced healthcare is limited. The county hospitals play a pivotal

role in addressing the healthcare needs of communities outside major urban centers.

The WHO supports universal healthcare which calls for the admission of all individuals to quality, inclusive, and operational healthcare services at reasonable charges free of financial hardship (WHO, 2023). Nonetheless, different nations with lower and average income levels heavily rely on out-of-pocket expenses to cover healthcare costs, resulting in detrimental effects on service utilization and the potential for severe financial hardships and impoverishment (Wu, Li & Ercia, 2020). In Kenya, Owoko (2023) reported that hospitals constantly experience a trend of holding patients due to unpaid bills. Lack of health insurance and failure to afford to pay monthly contributions are among the top reasons for growing out-of-pocket expenditures in Kenya. Therefore, over the recent past, all public healthcare providers in Tharaka Nithi County have relied on NHIF as Health insurance.

Tharaka Nithi County situated in Eastern Kenya, spans an approximate area of 2609 square kilometers. The region encompasses five sub-counties, namely Chuka, Tharaka North, Tharaka South, Maara and Igambang'ombe. According to the NHIF report of 2023, there are 28 public healthcare institutions in Tharaka Nithi County. As per a report by Tharaka Nithi County, (2021), approximately 52% of Kenyans have access to healthcare within a five-kilometer radius. This report further indicates that timely response to the specific needs of patients in Public healthcare institutions in Tharaka Nithi County has remained a challenge, a situation that has continued to devastate the state of access to quality healthcare services. Other serious challenges that have been noted by this report include poor service quality delivery landscapes that have continued to exert negative implications on the ability to realize the established goals and objectives (Makori & Muturi, 2018).

Statement of the Problem

Vision 2030 includes Kenya's healthcare system as one of its essential components. The primary responsibility is to ensure that health services are both affordable and of high quality, as well as to preserve a competent workforce (Wanjiru *et al.*, 2019). Despite the initiatives taken by Tharaka Nithi's County Government and the national government of Kenya to improve the performance of public healthcare facilities in the county, the performance remains below the required threshold (Moses *et al.*, 2021; Rotich *et al.*, 2022). Although service delivery is one of the goals of most public health institutions in Tharaka Nithi, these institutions are also charged with an additional role of generating revenues for the government that are channeled directly to the exchequer. However, the Auditor Report

(2023) points out that over 30% of the public health institutions in Tharaka Nithi are not generating adequate revenues relative to their operating potential. This is a pointer that the performance of these institutions has remained an unresolved challenge which creates the need for the present study.

According to a report by the World Health Organization (2023), the majority of public healthcare institutions in Kenya provided 75% unsatisfactory services to their customers. In addition, the services provided by these institutions have remained at 6.6% from the year 2017 to 2020 (KAM, 2022). Further, Tharaka Nithi County's integrated development plan (2022) reports that a 20% critical scarcity of human resources is undermining the operations of public health institutions in Tharaka Nithi County. Moreover, Moses *et al.*, (2021) undertook an investigation that indicated the Kenyan healthcare system is inefficient, with 20% to 50% of the resources allocated to health in Kenya being used inefficiently.

The empirical literature on previous research in diverse contexts indicates that the construct did on individual components of quality management practices in Europe, Asia, banking, manufacturing, and hotel industry (Lavoie-Tremblay *et al.*, 2018; Carpinetti & Martins, 2019; Yuliansyah *et al.*, 2021; Issaue *et al.*, 2023). Further, Empirical literature from various studies indicated the generalization of the findings to other sectors on matters of low methodological rigor resulting from use of use of non-probability sampling techniques, use of secondary data only, exploratory research design, and small sample sizes for data collection (Carpinetti & Martins 2019; Lo & Sugiarto, 2021).

In addition, most studies did not incorporate several indicators of quality management practices to clarify the combined effect of the quality management practices on performance (Al-Saffar and Obeidat 2020; Mutingi and Chakraborty 2021; Al Shraah *et al.*, 2022). Other studies were conducted in different contexts like Europe that that are more advanced and developed as compared to Kenya. Therefore, there is an absence of consistency in the studies. Therefore, the purpose of this study was to investigate the effect of quality management practices on the performance of public healthcare institutions in Tharaka Nithi County, Kenya.

Objectives of the Study

- i. To examine how customer focus affects the performance of public healthcare institutions in Tharaka Nithi County, Kenya.
- ii. To analyze whether continuous improvement affects the performance of public healthcare institutions in Tharaka Nithi County, Kenya
- iii. To determine the effect of top management commitment on the

performance of public healthcare institutions in Tharaka Nithi County, Kenya

Review of Literature

Theoretical Review

Balanced Scorecard Model

The model was established by Kaplan and Norton (1992) and has gained widespread popularity as a model for strategic management and performance tracking. This model places significant emphasis on the necessity of taking into account various facets of organizational performance in addition to financial metrics. The model serves as a strategic tool for guiding and adjusting future planning, while also fostering the growth and advancement of an organization in the long term (Dudic *et al.*, 2020). According to Kaplan and Norton (1996), the Balanced Scorecard takes into account four perspectives: financial, internal company operations, customer, and learning and growth. Each viewpoint symbolizes a distinct facet of the performance of the organization and contributes to the main strategic goals. The financial perspective, for instance, is concerned with measurable financial outcomes such as profit margin expansion and revenue growth; conversely, the customer perspective assesses customer retention, market share, and satisfaction (Sharaf-Addin & Fazel, 2021). The learning and growth perspective evaluates the organization's capability for innovation, employee development, and organizational learning, whereas the viewpoint of internal business processes analyzes the efficacy and effectiveness of critical operational processes (Bochenek, 2019).

The BSC encounters challenges when attempting to quantify and assess non-financial dimensions of performance, including employee morale and customer satisfaction (Bourne *et al.*, 2003). Additionally, smaller organizations with limited resources may perceive the Balanced Scorecard implementation process as excessively complicated and time-consuming (Neely, Adams & Kennerley, 2002). Despite these challenges, the Balanced Scorecard model is still evolving, with ongoing research focusing on improving its implementation processes, increasing its relevance in various organizational contexts, and incorporating emerging trends like sustainability and corporate social responsibility (Rafiq *et al.*, 2021; Tawse & Tabesh, 2023). The theory informed the measures of organization performance.

Six Sigma Theory

The proponent of this theory was Bill and Mikel (1986) and it was later applied at General Electric by Welch (1995) to provide new strategic insights on continuous improvement and customer focus initiatives of the firm. This theory seeks to ensure that defects have been kept at a minimal

level as well as variations within the established processes. The theory adopts and applies two methodologies based on whether its essence for implementation is on achieving continuous improvement or customer services (Gupta, Digalwar, Gupta & Goyal, 2024). In these two methodologies, various tools for ensuring quality are adopted including a detailed cost-benefit analysis of implementing continuous improvement initiatives in an organization.

According to Yanamandra and Alzoubi (2022), the key essence of this theory in an organization is to reduce defects while minimizing variations to attain the highest level of quality. This according to Ekleş and Türkmen (2022) can be well achieved through a strong commitment to a culture of continuous improvement as well as having in place customer focus initiatives. Thus, this theory was found relevant to the present study that seeks to establish the effect of customer focus and continuous improvement as quality management practices regarding the performance of public health institutions.

Upper Echelon Theory

The proponent of this theory was Hambrick and Mason (1984) and it espouses the central role of top managers of an organization in achieving success of their organization. The theory argues that top managers in an organization are provided with strategic choices that are complicated and this complicates rational decision-making. The theory regards senior managers of an organization among the most powerful forces especially through their commitment to quality issues in an organization. The key premise of this theory is that the idiosyncrasies of top managers of an organization inform the strategic choices they undertake in supporting the performance of their organizations.

According to Memon, Rasli, Dahri, and Hermilinda-Abas (2022), managers can demonstrate their commitment to the goals and objectives of an organization through the effective and adequate allocation of resources and the training of employees appropriately. At the same time, managers are highly involved in the decision-making processes and mechanisms in an organization. The main focus of the present study is on top management commitment, which is one of the independent variables. Thus, it was expected that commitment of the top managers towards quality would enhance organizational performance and this assertion is going to be tested in this proposed study.

Empirical Review

Customer Focus and Performance

A research study conducted by Yuliansyah *et al.*, (2021) on the extent to which organization learning and innovativeness can improve the performance of Indonesian financial service firms through a customer-focused strategy. A convenience sampling technique was used. Data was collected from 157 respondents. The results of the study indicated that the impact of organizational learning on performance is contingent upon the variations in the customer-focused strategy. The research used convenience sampling, which is straightforward to implement, but it frequently leads to biased results because it is dependent on the accessibility and availability of participants, rather than the systematic selection of a diverse and representative sample. Additionally, the study was conducted in the financial service sector which is structurally and operationally different from public healthcare institutions in Tharaka Nithi County, Kenya. Finally, the economic condition in the Indonesian market cannot be compared to the Kenyan economy.

Moreover, Issau *et al.*, (2023) conducted a study on the mediating function of customer focus in the link between firm performance and organizational learning in the hotel industry of Ghana. The data was collected from 118 hotel proprietors or administrators. Firm performance was positively correlated with customer focus. Furthermore, the organization's learning and firm performance were partially mediated by customer focus. The study was conducted in the hotel industry which is structurally and operationally different from public healthcare institutions in Tharaka Nithi County, Kenya.

Additionally, Abrokwah-Larbi (2024) investigated the influence of customer focus on the performance of SMEs in the eastern part of Ghana. The resource-based view (RBV) was employed to anchor the investigation. 255 respondents from the registered list of the Ghana Enterprise Agency were utilized for analysis. The study concluded that the performance of enterprises was significantly influenced by their customer focus. The investigation was conducted on SMEs that exhibit structural and operational distinctions from public healthcare institutions.

Continuous Improvement and Performance

An investigation was conducted by Carpinetti and Martins (2019) to investigate the correlation between production competitive criteria and continuous improvement strategies in Brazilian manufacturing firms. Middle managers of 15 firms were used for analysis using the convenience sampling technique. Qualitative data were implemented to analyze the data. Manufacturing firms' constant improvement strategies had a beneficial effect

on their competitive production criteria. The study analyzed data using descriptive statistics so there is a need to be more comprehensive quantitative analysis. In addition, the research used convenience sampling, which is straightforward to implement, but it frequently leads to biased results because it is dependent on the accessibility and availability of participants, rather than the systematic selection of a diverse and representative sample. Finally, the study was conducted in Brazil, an economically developed country compared to Kenya.

Lavoie-Tremblay *et al.*, (2018) study to enhance comprehension of the continuous improvement mechanisms employed by the Project Management Office's strategies in the field of health care in Canada. The descriptive case study design was implemented. The data was collected over three months. A content analysis was conducted on the qualitative data. Strategies of project management agencies in the healthcare sector were positively influenced by continuous improvement mechanisms. The content analysis was analyzed using descriptive statistics, which do not include measures of statistical significance, such as p-values or confidence intervals, and therefore cannot be as conclusive. Additionally, the study was conducted within the healthcare sector in Canada a more developed economic market compared to healthcare institutions in Kenya.

Consequently, Jimoh *et al.* (2019) on the relationship and impact of TQM practices and continuous improvement on construction companies in Nigeria. A cross-sectional approach was implemented to gather data in the study. 155 construction firms in Nigeria were used for analysis. The research revealed that the TQM practices were influenced by strategies for continuous improvement. The study was conducted in the construction industry which differs structurally and operationally from public healthcare in Tharaka Nithi County.

Top Management Commitment and Organizational Performance

Memon *et al.* (2022) conducted an investigation into top management commitment and its implication as far as organizational citizenship behavior is concerned in industries within the Pakistan context. More specifically, green training of staff was the main focus and a total of 222 respondents were involved. The analysis indicated the existence of a positive nexus between green training and top management commitment.

Gachanja and Kinyua (2021) determined how top management commitment affected the performance of County Secondary schools within Nairobi County. While adopting a descriptive design, a total of 30 schools were covered in this study. The sampling of the respondents was done through a random sampling method. Information was generated in its quantitative form and the analysis was by regression. It emerged that the

level of commitment by the top management team exerts direct and significant implications on performance.

Sirma, Misoi, and Omillo (2019) conducted a review of support from the top management and its implication on performance. It covered banks in Nandi County. The processed data was able to point out that top management commitment can be demonstrated through regular communication and review of the quality management systems at planned intervals.

Lowalan, Mutiiria, and Gichunge (2023) determined how commitment by the top management affected performance. In total, 137 respondents were targeted and included in this study. Information collection was supported by a questionnaire and the analysis was done through regression. After the gathering and processing of data, it was apparent that top management commitment and performance of the supply chain function of an organization are positively and significantly connected.

Research Methodology

The current investigation utilized a descriptive cross-sectional research design. Bougie and Sekaran (2019) assert that descriptive research serves as a foundation for qualitative studies, as it offers a comprehensive overview and valuable insights into the variables that warrant quantitative examination. All the public healthcare institutions in Tharaka Nithi County as of 2024 were the study population. There are 28 public healthcare institutions in Tharaka Nithi County from which 883 healthcare staff were targeted as the population.

The sample size is a small and representative unit that is drawn from the larger target population and its essence is to support the generalization of results (Liamputtong, 2019). In this study, the sample size was determined scientifically through the Yamane (1967) formula using variables such as n for sample size, N for population size, and e for the margin of error. The formula was utilized with a confidence level of 95% and a margin of error of 0.05 (e).

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

n = Respondents

N = Entire population

e = Level of significance

$$\frac{883}{1 + 883(0.05)^2} = 275$$

The study utilized a stratified random sampling technique to select respondents for data collection. The stratified random sampling technique

according to Casteel and Bridier (2021) provides an equal opportunity for each of the respondents of the study to be selected forming the sample. In this regard, the healthcare workers from each of the hospitals were stratified at sub-county level and representative elements were drawn from each of the categories.

A structured questionnaire was implemented to acquire primary data. Questionnaires were disseminated to the personnel in public healthcare institutions in Tharaka Nithi County. According to Fellow and Liu(2021), a data collection tool is an essential tool that requires the guidance of an expert while developing it. The variables' information is to be evaluated using a five-point Likert scale, with 1 indicating strongly disagree and 5 indicating strongly agree.

According to Dźwigoł (2019), a multiple regression model is suggested as a means of predicting the values of a dependent variable in the presence of multiple metrics of independent variables. Regression analysis is used to analyze continuous data (Kinyua, 2015;Gakii, 2023). In the present investigation, the dependent variable was continuous; consequently, regression analysis, specifically multiple regressions, was determined to be the most suitable method. Therefore, the study utilized a multiple linear regression model. The empirical model outlined below was utilized.

$$OP = \beta_0 + \beta_1CF + \beta_2CI + \beta_3TMC + \varepsilon$$

Where:

OP = Organization Performance

CF = Customer Focus

CI = Continuous Improvement

TMC= Top Management Commitment

$\beta_1 - \beta_3$ = Coefficients of the CF, CI, and TMC respectively

β_0 = Constant

ε = the error term

Research Findings and Discussion

Response Rate

Out of the 275 questionnaires that were administered to the public healthcare institutions in Tharaka Nithi County, 235 were completely filled in and returned. This was equivalent to 86% which was consistent with Babbie (2010) who shared that an above 80% response is excellent to support the analysis of findings, especially in a survey study.

Descriptive Statistics

The findings of descriptive statistics guided by means and standard deviations were established, summarized, and discussed as shown in the subsequent sections.

Customer Focus

The first independent objective variable was customer focus and the findings were determined and presented as shown in Table 1.

Table 1: Customer Focus

Statements on Customer Focus	Mean	Std. Dev
My institution handles customers with respect and empathy when in person over the call or online.	3.53	.667
Our institution listens to patients to discern their medical, emotional, and logistical needs.	3.45	.704
We address inquiries promptly, ensuring transparency about treatments and procedures.	3.41	.952
Our healthcare institution has built trust and enhanced satisfaction with our customers over the years.	3.48	.960
We collect feedback from the customers to help them in service development.	3.45	.985
Overall score	3.46	.854

Source: Survey Data (2024)

The findings in Table 1 indicate the overall score as 3.46; this means that customer focus as a TQM practice in the studied hospitals was average. While most of the respondents agreed ($M=3.53$) that their institution handled customers with respect and empathy when in person over the call or online, the majority were indifferent to their institution addressing inquiries promptly, ensuring transparency about treatments and procedures ($M=3.41$). These two are the statements that two extreme cases as far as customer focus as a TQM practice was concerned.

Continuous Improvement

Table 2 is an overview of the results of descriptive statistics on continuous improvement.

Table 2: Continuous Improvement

Statements on Continuous Improvement	Mean	Std. Dev
My institution involves employees and major stakeholders while making quality management decisions.	3.80	.725
Our healthcare facility prefers training and coaching on all quality management practices to supervising.	3.76	.939
Quality training is given to employees regularly.	3.55	.857
Our institution conducts regular reviews of the production.	3.54	.787

Our processes are effectively designed to reduce employee error.	3.45	.980
Overall score	3.62	.858

Source: Survey Data (2024)

Table 2 indicates that overall, the studied hospitals worked towards continuous improvement of their products and services (M=3.62). In particular, respondents agreed that their institution involved employees and major stakeholders while carrying out quality management decisions (M=3.80) besides having a preference for training and coaching on all quality management practices over supervising (M=3.76). On the other hand, respondents were neutral on their processing being effectively designed to reduce employee error. (M=3.45). Thus, more efforts should be concentrated on the effective design of the processes among the studied hospitals.

Top Management Commitment

Table 3 gives the findings on top management commitment

Table 3: Top Management Commitment

Statements on Top Management Commitment	Mean	Std. Dev
I am actively involved in quality planning	3.54	.920
The top management has allocated an adequate budget for quality management	3.57	.890
The top management supports quality training	3.75	.913
Top management support of quality training has improved service delivery in this institution	3.82	.711
Overall Mean	3.67	.859

Source: Survey Data (2024)

The findings in Table 3 show that overall, there was top management commitment in the studied hospitals (M=3.67). Respondents were in agreement that top management support of quality training had improved service delivery (M=3.82, SD=0.711) besides the fact that allocating adequate budget to quality management (M=3.57, SD=0.890). This means that top management support allowed and contributed towards effective service delivery in the studied hospitals.

Regression Analysis Results

Regression analysis was performed to establish the effect of TQM on organizational performance. Table 4 shows the findings of the model summary:

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946 ^a	.895	.893	.61124

Source: Survey Data (2024)

The findings in Table 4 indicate the value of adjusted R square as 0.893, this means that 89.3% change in organizational performance among the studied hospitals can be explained by the TQM practices. This implies that in addition to the TQM practices like customer focus, continuous improvement, and top management support, there are still other additional variables that can influence the performance of these hospitals. Hence, more focus of studies in the future should be on establishing these other additional factors. The ANOVA findings were determined and the findings are presented in Table 5.

Table 5: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	731.805	3	243.935	652.903	.000 ^b
Residual	86.305	231	.374		
Total	818.111	234			

Source: Survey Data (2024)

The findings in Table 5 indicate the value of F calculated as 983.610 with p-value $p < 0.05$. This means that overall; the regression model adopted in this study was significant. The findings on beta coefficients and significance were established and summarized as indicated in Table 6.

Table 6: Coefficients and Significance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.989	.601		1.647	.101
Customer Focus	.277	.023	.490	12.186	.000
Continuous Improvement	.531	.042	.505	12.788	.000
Top Management Commitment	.145	.024	.040	6.042	.013

Source: Survey Data (2024)

From Table 6, the following is the predicted equation linking TQM practices and organizational performance:

$$OP = 0.989 + 0.277CF + 0.531CI + 0.145TMC + \epsilon$$

Where:

OP = Organization Performance

CF = Customer Focus

CI = Continuous Improvement

TMC = Top Management Commitment

ϵ = the error term

The study sought to examine how customer focus affects the performance of public healthcare institutions in Tharaka Nithi County, Kenya. From Table 8, the p-value under customer focus was given as $p=0.000$ which is less than 005. Thus, the study deduced that customer focus has a significant effect on the organizational performance of the studied hospitals. The finding agrees with Issau *et al.*, (2023) who established that firm performance was positively correlated with a customer focus. Additionally, Abrokwah-Larbi (2024) investigated the influence of customer focus on the performance of SMEs in the eastern part of Ghana and concluded that the performance of enterprises was significantly influenced by their customer focus. The investigation was conducted on SMEs that exhibit structural and operational distinctions from public healthcare institutions.

This study set out to analyze whether continuous improvement affects the performance of public healthcare institutions in Tharaka Nithi County, Kenya. From the findings, continuous improvement had a p-value given as $p=0.000$ that is $p<0.05$. Thus, the study inferred that continuous improvement was a significant predictor of organizational performance of the studied hospitals. The findings of Carpinetti and Martins (2019) established that the firms' constant improvement strategies had a beneficial effect on their competitive production criteria. Similarly, Jimoh *et al.* (2019) revealed that the TQM practices were influenced by strategies for continuous improvement.

The findings show that top management had a p-value of $p=0.013$. This means that top management support was significant. This finding agrees with Memon *et al.* (2022) who indicated the existence of a positive nexus between green training and top management commitment. Sirma *et al.* (2019) established that top management commitment can be demonstrated through regular communication and review of the quality management systems at planned intervals. Lowalan, Mutiiria, and Gichunge (2023) indicated that commitment from the top management team and performance were significantly linked with each other.

Conclusion

The study sought to examine how customer focus affects the performance of public healthcare institutions in Tharaka Nithi County, Kenya. Based on regression results, the study concludes that customer focus has a significant effect on the organizational performance of the studied hospitals. Therefore, investing resources in strengthening customer focus is the best way to improve the performance of an organization.

This study set out to analyze whether continuous improvement affects the performance of public healthcare institutions in Tharaka Nithi

County, Kenya. From the findings of regression analysis, the study concludes that continuous improvement was a significant predictor of the organizational performance of the studied hospitals. This means that the adoption of continuous improvement contributes towards an improvement in the performance of an organization.

The study sought to determine the effect of top management commitment on the performance of public healthcare institutions in Tharaka Nithi County, Kenya. From the findings of regression analysis, it can be concluded that the top management support had a significant effect on the organizational performance of the studied hospitals. This therefore means that high top management commitment through the allocation of resources leads to an improvement in the performance of an organization.

Policy Recommendations

From the findings of descriptive statistics, respondents moderately agreed on whether they addressed inquiries promptly or collected feedback from customers for further auctioning. Based on these findings, it is recommended that employees working with public healthcare institutions in Tharaka Nithi County should be motivated to address customer inquiries promptly to improve the level of efficiency and effectiveness. The heads of all functional units in the public healthcare institutions in Tharaka Nithi County should be encouraged to collect information on customer experience to guide further improvement and decision-making.

On the second objective, respondents were neutral on whether their processes were effectively designed to reduce employee error. This study thus recommended to the operational managers and all other heads of the functional areas in the public healthcare institutions in Tharaka Nithi County design their processes effectively for effective decision making. Employees should be encouraged to use errors reported as the basis for further improvement in processes.

The findings on the third objective indicated that overall, there was top management commitment. This was demonstrated through the allocation of resources and training. However, more should be done by the top management team working with public healthcare institutions in Tharaka Nithi County through the provision of effective strategic leadership and articulation of quality vision and mission to employees.

Limitations and Future Research Direction

This study was conducted in Tharaka County and as such it cannot be generalized in the entire country however, it gives a basis for similar studies in other counties.

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