

Quality Management Systems and Service Delivery in Parastatals in Kenya: A Case Study of Kenya Plant Health Inspectorate Service (Kephis)

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Abstract:- Total quality management is becoming more widely recognized due to businesses' efforts to provide high-quality goods and services. Government parastatals are confronted with various challenges due to shifting dynamics, such as inadequate legal and regulatory frameworks, subpar corporate governance, and unfavourable public perception. The main objective was to examine quality management systems and service delivery in Kenya. The investigation was guided and anchored by the following theoretical pillars: The study's fundamental anchor theory is Deming's Theory of Quality Management, which was backed by institutional theory. The study employed a descriptive research design with a population of 300 as its target. Stratified random sampling was used to select a sample size of 171 people. Data was gathered through surveys. The quantitative data was analyzed using SPSS. The data was displayed using tables. The relationship between the variables was demonstrated using inferential statistics.

Some ethical guidelines were considered to direct the research investigation throughout the study period. The relationship between quality services and service delivery had an $R^2 = 0.499$, which indicates that a shift in quality services may be responsible for 49.9% of the variation in service delivery, and an $R^2 = 0.642$, which indicates a strong positive association between quality services and service delivery. basic relationship between quality control and service delivery ($R = 0.595$) with an R^2 value of 0.431. This means that to improve performance, businesses should be aware of their clients' requirements, meet their needs now and in the future, and aim to surpass their expectations. KEPHIS's management should think about incorporating quality service principles within the organization's divisions and departments. To ensure successful quality services and business success, KEPHIS should set up their quality management systems by ISO standards. More research can be done to broaden the study's focus to include other industries or look at how public, private, and SMEs are implementing the findings. Furthermore, knowledge generation processes can be

integrated with a company's internal and external operations through quality management.

Keywords:- Total Quality Management, Quality Services, Service Delivery, and Quality Management Systems.

I. INTRODUCTION

The Agricultural industry is not an exception to the rule that businesses must provide high-quality goods and services to meet or beyond customer expectations due to shifting consumer wants and preferences. In a very unpredictable climate, businesses may stay competitive by providing high-quality goods and services. Total quality management (TQM) is becoming more widely recognized as a result of businesses' efforts to provide high-quality goods and services (Ross, 2017). Academics and researchers are paying more and more attention to TQM these days, particularly in the discipline of strategic management. TQM as a practice seeks to continuously enhance quality and, consequently, the firm's performance. In the globalized economy, quality is seen as one of the factors that influences service delivery (Myeda, Chua, & Aqillah, 2023).

Providing exceptional service quality with a sufficient and strong focus on customers is among the key elements that firms can use to create long-lasting competitive advantage and win the market in the fast-paced business environment of today. Because of this, marketers nowadays are attempting to concentrate more on the ongoing assessment and monitoring of service quality, using a range of cutting-edge products and services that directly impact consumers' service experiences. Meeting and sometimes even surpassing consumers' expectations is therefore essential to provide a great service, depending on the company's capabilities. To put it another way, it's the distinction between what a client expects from a firm and what they perceive as the quality of service they receive, therefore it depends on how satisfied or satisfied they are with their experience (Kawe, 2015).

The application of TQM in real-world commercial contexts necessitates a significant organizational transformation in most cases (Adjei & Mensah, 2016). A few elements or related tasks are needed to make this adjustment to apply TQM in enterprises. TQM is not easily implemented in practice since it takes time to become ingrained. Being successful in a new culture takes time. Finishing the process of sharing corporate culture indeed takes patience and time. Moreover, it might take a while before the consequences become apparent (Myeda, Chua, & Aqillah, 2023). A company must go through several phases to transition to quality management. Complete quality control has long been seen as essential to gaining an advantage over competitors. As a result, many scholars who have thought deeply about TQM and its application have become interested in this issue (Adjei & Mensah, 2016).

➤ *Service Delivery*

In the product industries, customer service has emerged as a differentiator, and many businesses today deal with well-informed and picky customers thanks to IT advancements. The 18th century saw the beginning of the global movement toward higher-quality services as companies came to understand that superior products alone could not sustain a competitive edge. Numerous scholars acknowledge that providing high-quality services may offer a company a sustainable edge over its competitors. In both industrial and service businesses, the calibre of the services provided may spell the difference between success and failure. In the increasingly fierce battle for consumers in today's customer-centred world, service quality, customer happiness, and customer value have emerged as the primary priorities of manufacturing and service firms (Wang et al., 2014). As a result, enhancing service quality is becoming more and more important to many firms. Enhancements in service quality will boost client happiness and cost control, which will enhance service delivery.

Research indicates that TQM may be used in businesses with good results. The majority of firms modify their attempts to apply TQM in response to shifts in the competitive environment in which they operate, for example, as a result of a need to develop or in response to a need to survive. Adopting TQM is seen as a significant organizational transformation (McAdam & Bannister 2017). Contextual factors like organizational size must be considered for such a change process to be successful, since business improvement strategies may not work well in small firms if they fail to consider important characteristics and limitations of that. There is strong evidence that many firms implement TQM in an attempt to gain investor credibility and quick, painless transformation. According to Douglas and Judge's (2018) research, executives typically only speak about quality improvement when their behaviour does not support it. As a result, the likelihood that TQM was implemented successfully and that its positive effects will materialize is decreased. Additionally, Sommer and Merritt (2014) and Rad (2015)

made the case that executives must be cautious when implementing TQM tactics since these strategies have a substantial impact on how people behave. When considering TQM adoption and the ensuing service delivery in the service sector, the disparity in TQM policy formulation and execution is more noticeable (Al-Swidi, 2011).

➤ *Quality Management Systems*

A quality management system, or QMS, is a codified system that keeps track of responsibilities, actions, and protocols for achieving quality policies and goals. A quality management system (QMS) assists in planning and guiding an organization's activities to meet regulatory and customer requirements and consistently improve its efficacy and efficiency. The international standard ISO 9001, which defines requirements for quality management systems, is the most well-known approach. While some refer to the set of documents that define the ISO 9001 standard or the QMS as the "QMS," the term "QMS" actually refers to the entire system. There is only a description of the system in the paperwork. Because providing customer-focused goods and services is the foundation of an organization's existence, the QMS has great significance (Bell & Omachonu, 2011).

Building trust in business and laying the foundation for future quality improvement and expansion, a QMS that includes the necessary processes to accomplish this goal will help you provide consistent results to your customers and other stakeholders. As a result, it is advisable to set up your QMS by implementing the guidelines of a recognized standard that provides the mutually acceptable processes required to ensure customer satisfaction and improvement. One of the best ways to confirm that all necessary procedures have been included in your QMS is to use a standard set of requirements for quality management systems. One such set of standards that are well recognized is the ISO 9001 standard, which describes and specifies all the standard policies, procedures, documented methods, and records required for a successful QMS and may be applied to any type of business (Bashan & Kordova, 2022).

With an emphasis on meeting customer expectations through high-quality products and services, A quality management system should follow ISO 9001's recommended practices, which include specifications for data management. There are further industry-specific standards for the establishment of a QMS, such as IATF 16949 for the automobile industry, ISO 13485 for the medical device business, and AS9100 for the aerospace sector (Klute-Wenig & Refflinghaus, 2020). In their research, Bryman and Bell (2023) distinct continuous improvement as a culture of sustainable improvement that aims to increase performance by removing waste from all organizational systems and processes. According to Heras, Casadesus, and Dick (2018), companies that have adopted ISO certification were able to attain ongoing performance enhancement. When Wahid and Corner (2019) looked into post-certification periods in major

service organizations in Malaysia, they discovered that 95% of the companies reported internal benefits like improved internal communication, better documentation, and increased operational efficiency.

➤ *Statement of the Problem*

Organizations strive to continuously provide quality and efficient services to meet customer needs. The services are consistently delivered with confidence applying relevant procedures and specified national and international requirements. The quality management system aims to enhance customer satisfaction through the effective application of the quality system in all services rendered, including processes for continual improvement and assurance of full conformity to customer and all applicable requirements. Government parastatals are confronted with a range of challenges due to shifting dynamics, such as inadequate legal and regulatory frameworks, subpar corporate governance, and unfavourable public perception (Nyanaro & Bett, 2018). The setting in which KEPHIS functions is tumultuous, vigorous, and always varying often very quickly. Poor customer service and ongoing operational inefficiencies have long been hallmarks of the serviced office sector. To address these issues, these businesses are quickly implementing TQM to increase their effectiveness in satisfying the needs of the general public (Maxwell, 2011). Even though many organizations acknowledge that quality management practices can transform the quality culture and yield significant financial results for large companies, some have questioned the validity of these practices to truly improve the financial performance of firms or produce actual economic gains.

Numerous empirical studies exploring the connection between quality management practices and financial performance have been conducted since the 1980s. Despite the rush, the large sums of taxpayers' money spent, and the colour and pomp of the certification ceremony, the expected benefits of ISO 9001 certification are as short-lived as the ceremony. The traditional poor services resume their places sooner than expected. The infrastructure and resources are lacking and organizations find it difficult to sustain, develop and embed the quality standards into their core practices. Research has shown that the implementation of ISO 9001 has major challenges in the public sector in Kenya after it retires from the performance contracting obligations. There are many hypothetical reasons ranging from infrastructure resources, and management styles among other.

➤ *Objectives*

- To assess the effects of quality services on service delivery at the KEPHIS.
- To evaluate the effects of quality control on service delivery at the KEPHIS.

➤ *Deming's Theory of Quality Management*

This theory was developed back in 1982 by Dr. W. Edwards Deming. Deming is recognized by many as having played a pivotal part in the Japanese quality movement. he is involved in SPC work. and methods of problem-solving that gauge the effectiveness of every process. "satisfying the customer, not merely to meet his expectations, but to exceed them" is his definition of quality. it necessitates concentrating on the requirements of the client, not only desires (as demonstrated by the actual demand in the market). Deming has emphasized how important it is to be one step ahead of customers and foresee their wants. deming's concept, then, begins and ends with the client. the objective is to provide value, as desired by the client. enhancing quality can be achieved through the ability to monitor and control systems and processes efficiently, as well as the type of management tasks involved in doing so. Deming is associated with SPC and other approaches to problem-solving that aim to optimize processes and lessen the unavoidable variance in output that results from "special causes" and "common causes." variations have "common causes" that are systemic and shared by several users, devices, or goods. these consist of subpar working conditions, improperly sourced resources, and poorly designed products. these are what managers are expected to do. "special causes" include deficiencies in knowledge, expertise, or performance. these are the duties that employees and operators have.

Deming (1986) emphasized that senior management must take the initiative to transform systems and procedures. The majority of quality issues are the fault of management (85% or 94% have been cited). Managers should set clear expectations for acceptable work and offer the resources necessary for employees to meet them. Among these resources are a suitable workplace and atmosphere devoid of blame, fear, or criticism. Deming also pushed hard for staff involvement. These are outlined in his 14 management recommendations (Deming, 1986). "Tablets of stone" was not the original use for them. Deming (1986) believed that 94% of quality issues could be attributed to management, so he put a high value and obligation on management both personally and within the organization. A comprehensive management philosophy that may be implemented by corporations, small businesses, or nonprofit organizations is the fourteen-point plan: Establish a shared purpose to innovate, adopt a longer-term perspective, and enhance goods and services; Accept the new management style that encourages continuous development and the new ideology. Give up relying instead concentrating on process improvement and mass inspection; End the practice of selecting vendors solely based on cost; Develop relationships with fewer suppliers to gain a deeper understanding of the needs and uses of materials and other inputs; perpetually and permanently enhance the system continuously look for issues with all procedures.

He thought that management's intention to continue in business was indicated by their adoption of and acting on the fourteen criteria. Deming also popularized a well-recognized Plan, Do, Check, Act cycle and supported a methodical approach to issue solving. Though Dr. Shewhart, a Deming collaborator, invented the Deming cycle, also known as the PDCA cycle. It is a methodology for universal improvement, to continuously improve to lower the gap between the process' performance and the needs of consumers. The Stewart Cycle, a deep knowledge system, and fourteen management points form the foundation of Deming's TQM theory. He is well-known for his ratio, which says that quality is equivalent to the product of labour efforts divided by total expenses. A problem where costs increase as quality levels decline will occur if a company is cost-focused. Understanding how a firm's processes operate, comprehending variations that do occur and their causes, comprehending what is knowable, and comprehending human nature comprise Deming's profound knowledge system. The following are the main ideas of Deming's theory: the establishment of a consistent goal, the adoption of a new philosophy, the discontinuation of mass inspections, the guarantee of a continuous production system and improvement of service, the enhancement of performance through on-the-job training, the inculcation of quality in leadership, the removal of departmental barriers, the abandonment of work goals based on quantity achieved, the elimination of quotas and standards, the promotion of pride in craftsmanship, the facilitation of everyone in the company's training and education process, and the assurance additionally, the variables in this study that are backed by this theory include quality services, quality control, and service delivery.

➤ *Resource-Based View Theory*

In 1959, Penrose established this theory, but Wernerfelt's work in 1984 helped make it more widely known for its applicability in analyzing business success (Kozlenkova, et al, 2014). According to Wernerfelt, the real factors influencing a company's performance and profitability are its internal resources. Generally speaking, "RBV" refers to the perspective that values resources. This early understanding of the resource-based view is attributed to Penrose's research from that year (Kozlenkova, Samaha, & Palmatier, 2014). These resources are organized to give the impression that the business already has them as internal resources. Jay Barney advanced the benefits of the RBV viewpoint, and his work has since gained popularity. He outlined the key internal resource characteristics and their connection to competitive advantages, a company has a competitive advantage when it can increase the economic worth of than its nearest competition in a certain market (Kozlenkova, et al, 2014).

In subsequent publications, he distinguished between a short-term and long-term competitive advantage. According to Gills, Combs, and Ketchen (2014), not all organizational resources are necessary it must produce a competitive advantage for it. To get to the point where they can turn a profit, an organization's wealth needs to be difficult to replicate, replace, or transfer. According to Gills, Combs, and Ketchen (2014), The ability to employ company resources, which are inventories of immediately usable components possessed by the firm, differs from the corporation's competences. The features and forms of resources that generate an edge, higher performance, and competitive advantage are all components of the RBV theory (Gillis, et al, 2014).

Kozlenkova, (2014), RBV refers to the use of a variety of a firm's accessible tangible and intangible resources. Any business that wants to turn its organizational strategy into a long-term financial gain needs to have a diverse set of resources. How a company can beat its rivals is made clear by the RBV. When putting its strategy into practice, the RBV theory prioritizes the organization's internal resources. RBV theory proponents like Jensen, et al (2016) contend that for businesses to perform better, it is preferable to repurpose current resources as opposed to trying to acquire new resources or skills for every opportunity. These resources are divided into two groups. In order to optimize profits, the theory states that a business must determine where to deploy its unique resources. RBV also contends that quality services are important performance indicators that enhance a company's competitiveness and performance and can establish and preserve an economical gain (Hitt, et al, 2016).

Although core resources are significant drivers of service delivery, the RBV theory is constrained by its exclusive emphasis on the internal environment as a means of maximizing a company's superior performance (Gillis, Combs, & Ketchen, 2014). The RBV's competitive advantage and performance are impacted by its external environment. The truth is that external variables affect a firm's performance in the market equally. The way businesses operate in the market is influenced by external factors like laws and regulations, taxes, sectoral policies, and compliance protocols. External resources must also be considered when analyzing factors that may impact the strategies it employs. To study strategies that produce superior performance, it is vital to consider both external factors and a firm's internal resources, as suggested by theory (Hitt, et al, 2016). The theory is selected as an additional concept despite its shortcomings. The RBV remains a fundamental principle that explains how a company can use its resources to improve performance, additionally, the variables in this study that are backed by this theory include quality services, quality control, and service delivery.

II. EMPIRICAL LITERATURE REVIEW

➤ *Quality Services*

Olsson, Osman, Hellström, and Vakulenko (2022) mapped forms and factors of client expectations for unsupervised supermarket delivery services. This work attempts to contribute to the body of knowledge on unattended grocery delivery services by defining and characterizing the forms and factors of consumer expectations through experimentation. Research involving many cases of prospective early adopters was carried out to investigate what customers expected from unattended grocery delivery services. Ten Swedish families provided the empirical data for the direct observations and the semi-structured interviews. Data were coded, and subjected to single-case and cross-case analyses, which revealed emergent patterns from which propositions were created. Six propositions make up the conceptual framework for determining and anticipating services that emerged from the case study's iteration of theory and data. According to a distinct trend found in the survey, customers anticipate having enough protection and saving time, flexibility, and convenience of use. In addition, customers want inconspicuous hardware designs, integrated product returns, and open access features from merchants and service providers. The results imply that situational variables, technological knowledge, and individual requirements all influence these service expectations. Reducing stress, reducing social engagement, and increasing free time are the stated personal demands. This research gives managers the most recent information about consumer expectations and offers suggestions for creating unattended grocery delivery services. (Olsson, Osman, Hellström, & Vakulenko, 2022) This study is the first to thoroughly analyze consumer expectations for unattended grocery delivery services, which are being utilized more often for last-mile e-grocery delivery and need to be looked at from a local standpoint.

Abrokwah-Larbi (2023) looked at how quality services affect business organizations' performance using data from SMEs in a developing West African economy. To collect information gathered from 255 respondents who were registered with the Ghana Enterprise Agency in the eastern region of the nation, this research study used a survey approach. Data collection scales were operationalized from earlier investigations. Customer focus's effect on SMEs' performance is determined through a route analysis using structural equation modelling.

Findings validate the present need for more research into the specific customer-focus's effects on SMEs' performance, as it shows customer-focus significantly improves SME performance. The results show a strong and positive correlation between quality services and financial performance, supporting the body of research on the positive effects of this strategy on the performance of SMEs, customer performance, internal business process performance, and learning and quality improvement performance. Consequently,

the optimization of SME performance depends on the customer-focus factors that were employed in this study, including artificial intelligence marketing, networking, co-creation, and customer insight. Despite the previously indicated significance of this research work, it has several drawbacks. Notably, this study's sample size may be expanded to include SME respondents from additional geographic zones that were left out. Future studies should examine the cause-and-effect link between quality services and business environment circumstances on SME performance, as well as how business environment variables mitigate the relationship between quality services and performance. (Abrokwah-Larbi, 2023).

➤ *Quality Control*

In their study, Schröder, Schmitt, and Schmitt (2016) investigated how to create and apply quality control loops as a means of achieving reliable business processes. The open and dynamic nature of business processes makes them susceptible to both internal and external disruptions. When feedback mechanisms aren't used properly, those processes become unstable and don't work as planned. This study aims to address the issue by providing a framework for entrepreneurial quality management while still guaranteeing a standard of quality that is competitive. Using the method of analogy formation, it is shown how cybernetic techniques can be applied to corporate operations. In particular, quality control loops are analyzed to find the best practices for creating and implementing them in businesses. A strategy for the methodical construction of control loops is provided as a central component of the article. This approach offers a framework and an explanation for putting quality control loops into practice in stable business processes in an operational manner. It is previously recognized that numerous processes should be designed using closed quality control loops. Anyhow, the new element and a significant advancement within the subject is the combination of a strong framework and a suitable, sufficient, and thorough description for an operational implementation (Schröder, Schmitt, & Schmitt, 2016).

The impact of environmental and cultural elements on the process of implementing benchmarking and management control in firms located in the United Arab Emirates (UAE) is examined by Alsharari and Aljohani (2023). The study intends to determine how cultural dynamics and environmental factors influence the efficacy and results of benchmarking programs in the distinct business environment of the United Arab Emirates by examining the intricate interactions between these variables. The research aims to provide UAE-based companies with useful information on how to improve their benchmarking procedures, boost productivity, and become more competitive. The study uses a mixed-methods approach, combining quantitative and qualitative approaches, to fully examine how environmental and cultural factors affect how management control and benchmarking are applied in the United Arab Emirates. UAE firms may maximize their performance and competitiveness by realizing the significance

of environmental sustainability and cultural values in influencing benchmarking methods. The results provide significant perspectives to the body of knowledge and have applications for enterprises in the United Arab Emirates that aim to use benchmarking as a strategic instrument for

expansion and ongoing development (Alsharari & Aljohani, 2023).

➤ *Conceptual Framework*

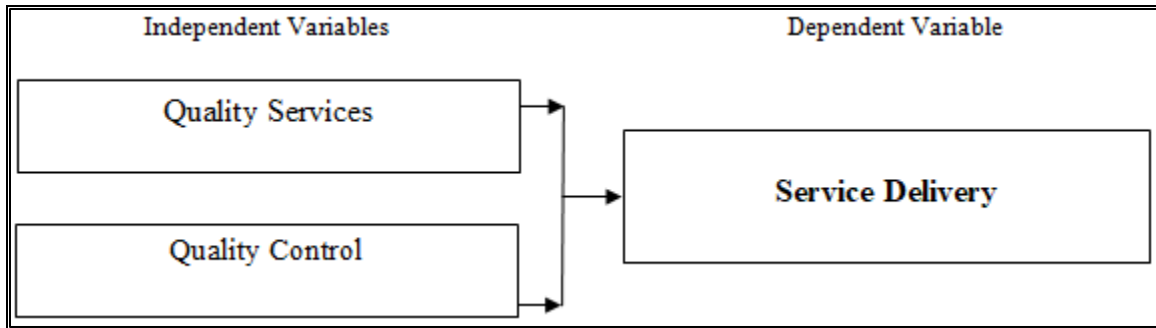


Fig 1: Conceptual Framework

III. METHODOLOGY

A descriptive design was used. The design was employed to characterize the population's features or study issues. This method has the advantage of helping researchers plan and carry out investigations that provide an in-depth understanding of the people, locations, or specific problems (Bickman & Rog, 2018). Converting research questions into a project is the primary objective of research design. The population was drawn from the headquarters and JKIA branches only. The population include top management, middle-level management, plant/seed inspectors, lab analysts and non-technical officers from departments such as Human capital, finance, administration, planning, supply chain, communications, projects and ICT. stratified random sampling was used, which Creswell and Creswell (2018) found to be objective and give the entire population an equal chance of being chosen. Kothari and Garg (2015), a sample is the division used in representing a large unit to reflect the features of the population. Cooper and Schindler (2018) noted that to prevent biases, the study sample size should be random and 1-10% of the target population is regarded as a suitable size, according to Saunders, Lewis, and Thornhill's (2018) recommendation. Cochran formula is adopted for sample determination size as 260 at a 5% level of significance

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

Where; n – sample size N – Population size e – Level of significance $n = 300 / 1+ 300(0.05)^2 = 171$ Therefore the sample was 171 respondents. The questionnaire served as the study's main method for gathering data. Ten employees of all levels were chosen at random from the KEPHIS Embu branch were part of the pilot. The findings of the pilot study were not incorporated into the final study. Validity is about the accuracy of the measure. It's to identify and correct any flaws in the research instrument before it is administered to the

sample group. This was done during the instrument's piloting period (Saunders, Lewis, & Thornhill, 2018). Content validity with the assistance of the supervisor and field specialists was adopted. Face validity was also used in the study. Face validity is significant since it makes determining the general validity of a test or method straightforward. It's a quick, simple, and straightforward way of determining if a new statistic is beneficial at first look (Cooper & Schindler, 2018). The study also conducted a reliability test throughout the piloting phase. Reliability is about the consistency of a measure. Saunders, et al (2018), dependability is defined as the ratio by which study questionnaires are tested for consistency. The reliability of the study was evaluated using the Cronbach Alpha coefficient, which is 0.7. According to Kothari and Garg (2015), research instruments should offer the same results as the pilot study when delivered to the actual sample size if they are dependable, and this is supported by Cooper and Schindler (2018). It is about the consistency of a measure

Introduction letters from the university, KEPHIS, and an authorization permit from NACOSTI were used in facilitating data collection. Primary data was gathered using questionnaires. Kothari and Garg (2015), refer to it practice of sorting and organizing raw data via research data-gathering methods to extract relevant information, quantitative data using SPSS version 27 was analyzed. Before generalizing the conclusions, the field's uncoded raw data was processed. Descriptive statistics was used for analysis and tables were used to display results. The link between the research variables was shown using inferential statistics. A two-tailed, 5% level of significance correlation test was conducted. To evaluate the significance of the entire model, an analysis of variance was employed. It was compared between the computed and tabulated f statistics. It was determined whether the entire model was significant using 0.05 as the P-value. A multiple linear regression model was used to assess the importance of the impact of the independent factors on the

dependent variable. A regression constant, also known as an intercept, was used to estimate the model of KEPHIS composite index service delivery, and the regression coefficient ranges from 1-4. The independent variable, EE, indicates the KEPHIS service delivery's overall composite score. JRA is a composite index of the other factors. IF represents the variables, which was a composite score of quality services, quality control, quality assurance, and quality improvement was the random error factor, which, when the linear effect of the predictor variables is insufficient to explain it, explains the viability of KEPHIS service delivery. Ethical consideration, according to Bickman and Rog (2018), is the use of ethics during a research study. This included informed consent, voluntary participation, confidentiality, privacy, and anonymity

IV. FINDINGS, DISCUSSION

A total of 171 questionnaires were distributed to the sample population. The findings show that 137 surveys were completed, representing an 80% response rate, while 20% were left unanswered. A large number of people responded to the research study, as supported by Kothari and Garg (2015); the response was excellent, and 137 valid questionnaires were used to examine the data. To verify the reliability of the questionnaire, a pilot study was carried out before any data was collected to assess and improve the questionnaire's usability and clarity. The tool's Cronbach's alpha was greater than 0.7, meaning it was deemed acceptable and sufficiently dependable for measurement.

➤ *Regression Analysis*

Table 1: Model Summary for Quality Services

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.642 ^a	.499	.395	.60906

a. Predictors: (Constant), Quality services

Table 1 illustrates the relationship between the predictor component, quality services, and the dependent variable, service delivery. R2 = 0.499 indicates that a shift in quality services may be responsible for 49.9% of the variation in service delivery, and R = 0.642 indicates a strong positive association between quality services and service delivery. Other factors impact KEPHIS service delivery to the tune of 50.1%.

Table 2 ANOVA^a Results for Quality Services

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.578	1	26.578	75.042	.000 ^b
1 Residual	42.902	136	.375		
Total	69.480	137			

a. Dependent Variable: Service Delivery
 b. Predictors: (Constant), Quality Services

Quality services have a considerable impact on service delivery, as seen by the F = 75.042 values in Table 2, demonstrating both the model's good fit to the data and the importance of quality services in KEPHIS service delivery. Based on a significance level of 000, which is less than 0.05, the dependent variable is correctly predicted by the regression model.

Table 3 Regression Coefficients^a for Quality Services

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.095	.431		3.309	.001	.439	1.751
Quality services	.688	.079	.632	8.668	.000	.531	.845

a. Dependent Variable: Service Delivery

Table 3 shows how the quality services of the KEPHIS significantly improve service delivery. The data demonstrate a strong correlation between performance and quality services; $p = 0.01$ (0.05). Increasing the quality services method's mean index should enhance service delivery by 68.8%, or 688 units, as the strategy's value is statistically significant ($t = 8.668$, $p.05$). The following is the regression model that explains the findings in Table 3. Quality services for service delivery is equal to $1.095 + 0.688$. The model demonstrates and clarifies how the quality of services affects KEPHIS service delivery.

Table 4 Model Summary for Quality Control

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.595 ^a	.431	.325	.6427

a. Predictors: (Constant), Quality control

Service delivery was the dependent variable, the predictor component, and the quality control in a regression study. A change in quality control of one unit may account for 43.1% of the variance in service delivery, according to the regression study's results, which show a basic relationship between quality control and service delivery ($R = 0.595$) with an R^2 value of 0.431. Table 4 provides a summary of the results.

Table 5: ANOVA^a Results for Quality Control

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.411	1	24.411	56.864	.000 ^b
1 Residual	46.628	136	.484		
Total	70.039	137			

a. Dependent Variable: Service delivery

b. Predictors: (Constant), Quality control

$F = 56.864$ shows that quality control has a considerable impact on service delivery, indicating that the model appropriately captures the data and that KEPHIS quality control has a major impact on service delivery. The regression model successfully predicts the dependent variable at a significance level of .000, or less than 0.05, as Table 5 shows.

Table 6: Regression Coefficients^a for Quality Control

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.739	.545		2.873	.000	.669	1.069
Quality control	.644	.186	.476	8.412	.000	.547	.823

a. Dependent Variable: Service delivery

The results of the study show that KEPHIS's use of quality control has significantly enhanced service delivery. The results show a significant correlation ($p < 0.05$, $P = 0.01$) between quality control and service delivery. Given this, the quality control technique's values are statistically significant ($t = 7.480$), indicating that performance should improve if the quality control mean index is raised by .644 points.

➤ Overall Multivariate Analysis

Table 7: Model Summary Multivariate Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648 ^a	.568	.452	.58289

a. Predictors: (Constant), quality improvement, and quality services. Regression analysis was used to predict service delivery. Table 7 shows that there is a positive correlation between R = 0.648 and R² = .568, indicating that altering any one of the predictor factors may account for 56.8% of the variation in organizational service delivery

Table 8: ANOVA^a Results for Model Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.678	2	8.169	24.210	.000 ^b
1 Residual	37.118	135	.337		
Total	69.796	137			

a. Dependent Variable: Service delivery

b. Predictors: (Constant), quality control and quality services

The findings of F = 24.210 demonstrate that the model well describes the data and that the quality management system has a considerable impact on KEPHIS service delivery. These figures show that every predictor variable has a statistically significant impact on service delivery. The dependent variable is substantially predicted by the whole regression model at the level of significance of 0.000, or less than 0.05, according to Table 8.

Table 9: Regression Coefficients^a for Multivariate Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.564	.367		1.504	.136	.176	1.281
Quality services	.368	.118	.329	3.027	.003	.123	.592
Quality control	.317	.114	.274	2.697	.008	.081	.532

a. Dependent Variable: Service delivery

The study's findings show that predictor factors significantly improve the service delivery of KEPHIS. (p = 0.05; P = 0.01) The numbers show a direct link between effective service delivery. Consequently, at p.05, the predictor variable values are statistically significant, meaning that increasing service delivery should be the mean index of predictive dynamics. Table 9 provides a summary of the findings.

RECOMMENDATIONS

The research study makes the following improvements and recommendations to KEPHIS's board of directors and management: To ensure successful quality services and business success, KEPHIS should set up their quality management systems by ISO standards. To profit from quality management methods that improve service delivery over the long run, KEPHIS Management must prioritize and allocate resources toward continual improvement. The management of KEPHIS, working with internal quality auditors, can raise the certification's value through ongoing development, which will enhance service delivery.

The management of KEPHIS should place more emphasis on the process-based auditing system, which looks at how the organization wants to achieve its goals, assesses whether these goals consider the needs of customers and other stakeholders, and looks at how processes are managed to get there while also increasing performance. Kenyan policymakers ought to create measures that guarantee QMP-adopting companies receive assistance both during and after ISO certification for ongoing development.

The management of KEPHIS should focus on implementing all QMS principles to achieve successful quality service. Since businesses rely on their clients, KEPHIS's management should make sure that the organization's goals are connected to their needs and expectations. This means that to improve performance, businesses should be aware of their clients' requirements, meet their needs now and in the future, and aim to surpass their expectations. KEPHIS's management should think about incorporating quality service principles within the organization's divisions and departments.

REFERENCES

- [1]. Adjei, E., & Mensah, M. (2016). Adopting total quality management to enhance service delivery in medical records: Exploring the case of the Korle-Bu Teaching Hospital in Ghana. *Records Management Journal*, 26(2), 140-169.
- [2]. Alshahrani, M., & Husain, K. (2023). The effectiveness of the implementation of ISO 9001 on SMEs performance: the case of an emerging economy. *International Journal of Quality & Reliability Management*, 40(10).
- [3]. Alsharari, N., & Aljohani, M. (2023). The benchmarking implementation and management control process as influenced by the interplay of environmental and cultural factors: institutional and contingency perspectives. *Benchmarking: An International Journal*.
- [4]. Bashan, A., & Kordova, S. (2022). Challenges in regulating the local and global needs of quality management systems. *International Journal of Quality & Reliability Management*, 39 (8), 1996-2019.
- [5]. Bell, M., & Omachonu, V. (2011). Quality system implementation process for business success. *International Journal of Quality & Reliability Management*, 28 (7), 723-734.
- [6]. Bickman, L., & Rog, D. (2018). *Applied research design: A practical approach*. Thousand Oaks: Sage Publishers.
- [7]. Bordens, K., & Abbott, B. B. (2017). *Research Design and Methods: A Process Approach 10th Edition*. London: McGraw-Hill Education.
- [8]. Clancy, R., O'Sullivan, D., & Bruton, K. (2023). Data-driven quality improvement approach to reducing waste in manufacturing. *TQM Journal*, Vol. 35(1), 51-72.
- [9]. Cooper, D., & Schindler, P. (2018). *Business Research Methods*. New Dehli: McGraw Hill.
- [10]. Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th edition. Thousand Oaks, CA: Sage.
- [11]. Dunaetz, D. A. (2020). *Research Methods and Survey Applications: Outlines and Activities*. New York: Martel Press.
- [12]. Fahy, J. (2009). The resource-based view of the firm: some stumbling blocks on the road to sustainable competitive advantage. *Journal of Industrial Trading* vol. 24, 94-104.
- [13]. Grant, R. M. (2016). Prospering in Dynamically-Competitive Environments. *IJARM*, 7(4), 375–387.
- [14]. Grassmann, M., Fuhrmann, S., & Guenther, T. (2022). Assurance quality disclosed connectivity of the capitals and information asymmetry – An interaction analysis for the case of integrated reporting. *Meditari Accountancy Research*, 30(3), 852-892.
- [15]. Hamed, T. (2016). *Sampling Methods in Research Methodology*. Taherdoost.
- [16]. Heckman, G., Crutchlow, L., Boscart, V., Villier, L., Franco, B., Lee, L., . . . Stolee, P. (2019). Quality assurance as a foundational element for an integrated system of dementia care: Perspectives from physicians and geriatrician. *International Journal of Health Care Quality Assurance*, 32 (6), 978-990.
- [17]. Hitt, M. A., Xu, K., & Carnes, C. M. (2016). Resource-based theory in operations management research. *Journal of Operations Management*, 41, 76-94.
- [18]. Klute-Wenig, S., & Refflinghaus, R. (2020). Quality management for microenterprises and start-ups – is the ISO 9001 suitable? *International Journal of Quality and Service Sciences*, 12(4), 435-446.
- [19]. Myeda, N., Chua, S., & Aqillah, N. (2023). Adopting quality management (QM) principles in managing facilities management service delivery. *International Journal of Quality & Reliability Management*, 40 (10), 2393-2419.
- [20]. Nguyen, C. (2021). Exploring internal challenges for quality assurance staff in Vietnam: the voice of insiders. *Quality Assurance in Education*, 29 (2/3), 70-83.
- [21]. Olsson, J., Osman, M., Hellström, D., & Vakulenko, Y. (2022). Customer expectations of unattended grocery delivery services: mapping forms and determinants. *International Journal of Retail & Distribution Management*, 50. (13), 1-16.
- [22]. Peters, G. B. (1999). *Institutional Theory in Political Science*. London: Continuum.
- [23]. Salehi, M., Rajaei, R., Khansalar, E., & Edalati-Shakib, S. (2023). Intellectual capital, social capital components and internal control weaknesses: evidence from Iran's business environment. *Journal of Islamic Accounting and Business Research*, 25(1).
- [24]. Saunders, M., Lewis, P., & Thornhill, A. (2018). *Research Methods for Business Students*. London: Financial Times.

- [25]. Schröder, M., Schmitt, S., & Schmitt, R. (2016). Design and implementation of quality control loops: Strategies to reach stable business processes", *The TQM Journal*, Vol. 27 (3), 294-302.
- [26]. Shea, T., Usman, S., Arivalagan, S., & Parayitam, S. (2021). Knowledge management practices" as moderators in the relationship between organizational culture and performance in information technology companies. *VINE Journal of Information and Knowledge Management Systems*, 52(5), 650-662.
- [27]. Smith, J., Anderson, S., & Fox, G. (2017). A quality system's impact on the service experience. *International Journal of Operations & Production Management*, 37 (12), 1817-1839..