Institutional quality and self-evaluation model in public institutions: a Kenyan case study

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ABSTRACT: Improving institutional quality is essential for economic growth in developing countries. This study uses the Central Bank of Kenya as a case study to assess the impact of institutional quality management and self-assessment models on public sector performance. Using the ISO 9001:2015 framework, the study focused on principles such as leadership, stakeholder engagement, process approach, and continuous improvement. Survey data from 51 respondents were analyzed using correlation and regression techniques. The results reveal that while several quality management practices are correlated with improved performance, leadership commitment is the only statistically significant predictor. Self-assessment models, when embedded in organizational culture and supported by effective leadership, contribute significantly to service delivery and strategic alignment. The study highlights the key role of leadership and provides practical guidance for improving quality in public institutions.
KEYWORDS: process management, quality management, self-evaluation methods, ISO 9001, EFQM
JEL-CODES: D73, E59
DOI: https://doi.org/10.35551/PFQ_2025_3_5

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Introduction

Quality management and process improvement are widely recognized as essential elements of effective governance, also in the public sector, where institutions face demands for transparency, accountability, and operational efficiency. Quality initiatives that are often composed of smaller-scale interventions play an important role in supporting institutional mandates. Significant quality efforts frequently incorporate diagnostic self-assessment routines (Ritchie & Dale, 2000; Charliyan, 2023).

Existing literature shows that quality management can lead to significant performance improvements, particularly in developing countries where resource constraints and governance challenges are present (Agwanda, 2019). Due to economic pressures, public institutions must invest strategically in technological, human, and intangible capabilities to remain effective in a changing environment (Kotter, 1996; Senge, 1990). However, implementation of quality frameworks is often hindered by limitations in knowledge, organizational capacity, and strategic alignment.

This study is particularly relevant as it addresses these implementation challenges by examining how structured self-evaluation and excellence models – specifically ISO 9001 and the EFQM model – can support public sector institutions in meeting governance objectives. The study focuses on the Central Bank of Kenya (CBK) as a case, offering insights into the role of quality frameworks in enhancing institutional performance.

Our research question is: To what extent do specific quality management principles (such as leadership, process approach, and continuous improvement) influence the effectiveness of quality management and institutional performance in public sector organizations? This study aims to evaluate the effectiveness of ISO 9001 and EFQM quality models in promoting performance within public sector institutions, using the Central Bank of Kenya as a case study.

The study has a mixed-methods approach grounded in institutional economics and quality management theory. It employs a structured questionnaire and applies correlation analysis to examine inter-variable relationships. Empirical data from the CBK provides the basis for evaluating model effectiveness.

The paper is organized as follows: the next section outlines the theoretical framework and key concepts. A description of the methodology and data collection process follows this. The results are then presented, addressing two hypotheses, and discussed in relation to existing literature. Finally, conclusions and practical recommendations for enhancing quality management in the public sector are presented.

Theoretical background

Key Concepts: Quality Management, Self-Evaluation, and Excellence Models

Quality Management (QM) consists of activities and practices within an organization that aim to ensure operational consistency, improve processes, and enhance the quality of goods and services delivered to stakeholders. A fundamental component of QM is self-evaluation, an internal process in which an organization assesses its performance to identify strengths, weaknesses, and opportunities for improvement (Hillman, 1994).

Self-evaluation differs from external evaluation or certification in that it is primarily driven by the organization itself. It typically involves tools such as surveys, benchmarking, and performance reviews, though it can be supported by external experts when necessary. For self-evaluation to be effective, it should be structured around a model that provides reference criteria for what constitutes good performance. Following a model or framework is also a prerequisite for comparing actual performance with previous years; therefore, it is a common way to conduct a systematic comparative analysis. Hillman (1994) proposes that self-evaluation consists of three interrelated components:

$$Self\,Assessment = Model + Measurement + Management \tag{1}$$

Here, the *model* defines the best practices and desired outcomes; *measurement* provides data on the current state of the organization; and *management* ensures that insights from the evaluation are translated into actions and improvements.

Excellence models, such as the European Foundation for Quality Management (EFQM) model, ISO 9001:2015, and the Common Assessment Framework (CAF) are commonly used frameworks for guiding organizational self-evaluation and continuous improvement. These models provide performance criteria and structure to help public and private organizations assess themselves, benchmark with others, and drive organizational learning and transformation (EFQM, 2024; Ghreeb et al., 2021).

The Role of Self-Evaluation and Excellence Models in Public Sector Organizations

Public institutions adopt self-evaluation and excellence models to improve their performance, accountability, and service delivery to society (Ghreeb et al., 2021; Đorđević et al., 2021). The EFQM (2024, p. 14) defines excellence as "delivering, and sustaining the delivery of, outstanding value to all key stakeholders." Models like EFQM and ISO 9001:2015 are particularly valuable for guiding quality initiatives in public institutions, which operate under conditions of transparency, accountability, and resource constraints.

ISO 9001:2015 offers a comprehensive framework for developing a quality management system (QMS), emphasizing process orientation, stakeholder focus, and risk-based thinking (Susanto et al., 2024). EFQM 2020, on the other hand, provides

more flexible guidance on innovation, leadership, and managing stakeholder relationships (Kalfa & Yetim, 2018; Nenadál, 2020).

While these models originally emerged in the private sector, they have been successfully adapted for use in public administration to strengthen governance, efficiency, and long-term sustainability (Ishak, 2022). The benefits of these frameworks include:

- Improved service delivery
- More transparent and accountable management
- Better alignment of institutional goals with stakeholder needs
- Support for continuous improvement and learning

Application Challenges, Gaps and Opportunities

Despite the growing popularity of excellence models in public management, several challenges remain. Dooren et al. (2017) highlights that inconsistent application of QM and lack of standardized frameworks hinder improvements in public service delivery. Furthermore, in many developing economies, financial and human resource constraints limit the implementation of excellence-driven approaches.

However, the literature supports the view that institutional excellence is critical for good governance, economic competitiveness, and financial sector development (Luburić, 2015; Knack & Keefer, 1995). Institutions that adopt structured quality initiatives demonstrate more effective management of processes, risks, and outcomes, positioning them to respond to future challenges (Bognár and Böcskei, 2022). Additionally, implementing QM practices represents one of the avenues available to service-sector firms to enhance their financial performance (Talib et al., 2010).

Abaidoo and Agyapong (2022) conclude that the result of the McKinnon–Shaw model is the implementation of financial liberalization programs by many emerging countries, which attests to the need for at least two essential elements in the discourse: macroeconomic stability, and supervision and regulation of banks. This position implies that institutional quality and stability in key macroeconomic variables are critical in ensuring the development of the financial sector. Implementing structured quality initiatives often begins with diagnostic self-assessment routines and adopting excellence models, foundational steps in the quality improvement process. This approach is supported by the findings of Kewo and Mamuaya (2019), who assert that effective governance enhances the quality of financial reporting, reinforcing the notion that structured methodologies are essential for achieving quality objectives in the public sector.

Furthermore, as Ishak (2022) discussed, continuous improvement emphasizes the need for ongoing enhancements in public service delivery to achieve good governance. According to North (1990), institutions play a significant role in financial development. Institutions are defined as the rules, including constitutions and laws, codes of conduct, and behavioral norms, that govern a country and are essential for its growth. Moreover, Knack and Keefer (1995) also support the notion that institutional quality plays a crucial role in enhancing financial development.

Quality Management in the Context of Central Banks

Central banks are a special category of public institutions whose primary mission is to maintain financial and monetary stability within the economy. Their responsibilities typically include implementing monetary policy, managing the national currency, regulating money supply, overseeing payment systems, and safeguarding financial stability. Because of their critical systemic role, performance measurement, institutional quality, and continuous improvement are of critical importance (Kanji, 2001; Kalfa & Yetim, 2018).

Modern central banks increasingly recognize the need to implement QM practices and excellence models as part of their broader governance and strategic management. According to Abaidoo and Agyapong (2022), effective financial sector development in emerging economies depends on both macroeconomic stability and strong institutional frameworks, two outcomes that quality management directly supports.

Excellence models such as EFQM and ISO 9001:2015 can help central banks to:

- Develop more transparent, stakeholder-focused strategies
- Improve operational efficiency in monetary and supervisory functions
- Manage organizational risks more effectively
- Enhance accountability and public trust
- Strengthen long-term resilience in changing environments

Applying structured self-evaluation also aligns central banks with good governance principles (Kewo & Mamuaya, 2019), improving the quality of internal management processes and external reporting. The PDCA (Plan-Do-Check-Act) cycle, that is embedded in ISO 9001:2015, further supports continuous monitoring and improvement of key processes (Luburić, 2015).

Towards Institutional Excellence in Central Banks

Achieving institutional excellence requires more than compliance with formal standards. It involves creating a performance-driven culture that supports innovation, agility, and learning. Nenadál (2020), suggests that public sector organizations, including central banks, should balance four aspects to fulfill their mandates in complex and uncertain financial environments.

- Effectiveness (achieving mission and strategic goals)
- Efficiency (optimal use of resources and processes)
- Satisfying the needs and expectations of stakeholders
- Abiding by both financial and non-financial performance metrics

Despite the benefits, resource constraints, fragmented adoption of models, and lack of shared benchmarking across the central banks still pose challenges, particularly in emerging and developing economies (Dooren et al., 2017). More widespread and systematic use of self-evaluation and excellence models would support better governance, accountability, and performance in central banks.

Methods and materials

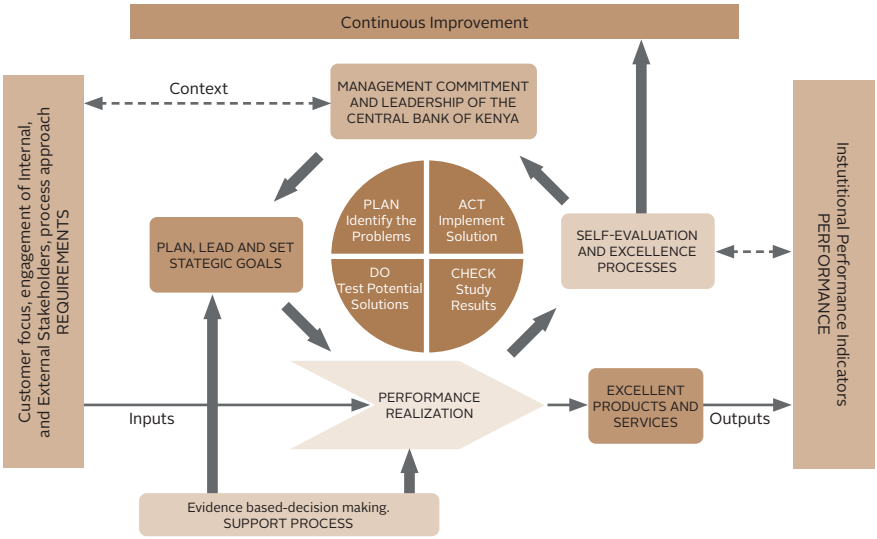
Quality management practices, grounded in ISO 9001 standards, form a framework used in our case study to assess its self-evaluation and excellence-oriented model, evaluating the effectiveness of these practices (Sharma, 2005).

Central to this standard is management commitment and leadership, which, in a participative style, establishes clear goals and expectations. Leadership in banking, just like in other industries, emphasizes direction, empathy, and communication skills (Steven, 2004). A customer-focused approach drives innovation and service improvement, while engaging stakeholders and harnessing their expertise for the organization's benefit. The philosophy of continuous improvement aims to enhance overall performance systematically (Prajogo & Sohal, 2001). Evidence-based decision-making, as encouraged by ISO 9001, highlights the importance of using data analysis in decision-making processes, and practical relationship management (ISO, 2015).

Among the models referenced, ISO 9001:2015 and the EFQM framework best aligned with the study's objective of assessing performance through quality management. The data were divided into parts including the influence of self-evaluation and the excellence model on performance.

Figure 1 illustrates a continuous improvement and process-approach-based model used by the Central Bank. It emphasizes that each activity converting inputs to outputs is part of a broader interconnected system. Inputs to one process often derive from the outputs of others.

Figure 1: Continuous improvement and process approach-based model of QM used by CBK.



This study examines two hypotheses:

- H1: A process approach and continuous improvement mindset enhance organizational performance.
- H2: Leadership commitment and stakeholder engagement are key predictors of successful quality management, service delivery, and effectiveness.

The seven independent variables used in the study are based on ISO 9001:2015, a standard for Quality Management Systems. Therefore, this study utilized a quantitative data analysis where primary data were gathered through structured interviews with 51 stakeholders at the bank. The focus was on processes from a quality point of view, their challenges and strategic function. The questions raised included Likert scales (1-5), where *1= no extent, 2= little extent, 3= moderate, 4= large extent and 5 is to a very large extent* or a scale of *1 to 5 where 1 is strongly disagree and 5 is strongly agree*. The questions included:

- The extent to which self-evaluation and evaluation focused on the 7 independent variables (Figure 2),
- The extent of the impact of self-evaluation and excellence on the 7 variables as shown in Figure 2,
- The achievement of outcomes of continuous self-evaluation,
- The respondent's level of agreement with the self-assessment and evaluation processes and their impact on the Central bank's performance.
- The challenges and problems encountered by the respondents in self-assessment and recommendations based on their experience.

The study used quantitative methods to analyze data from a sample size of 51 respondents in 2023 and applied analytical and predictive models, using multiple regression and correlation analysis, to establish relationships among the dependent, independent, and moderating variables. The quantitative approach gives detailed analysis and raw sentimental views of the bank's staff to assess the current QM practices and self-evaluation processes. For a comparative overview, a questionnaire was distributed to provide a detailed assessment of the central bank to determine some of the factors and relationships.

Correlation analysis is a widely used method to assess the degree of convergence or divergence between two variables and determine the significance of their relationship. Pearson's Product Moment Correlation Coefficient, a measure of the linear relationship between two variables measured on interval or ratio scales, is employed to determine the strength of the association between the variables.

The mathematical model employed measures the extent of the relationship between the variables. The study utilized multiple regression analysis to examine the impact of the variables and determine their effects. Performance is ranked on a scale of 1-5, with 1 being poor performance, 2 being low performance, 3 being moderate performance, 4 being good performance, and 5 being excellent performance. The data was divided into distinct parts, including the influence of self-evaluation and the excellence model on CBK performance. This provided a

quantitative overview of the study's aim. The corresponding regression model was as follows:

$$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \beta 7X7 + \varepsilon: \quad (2)$$

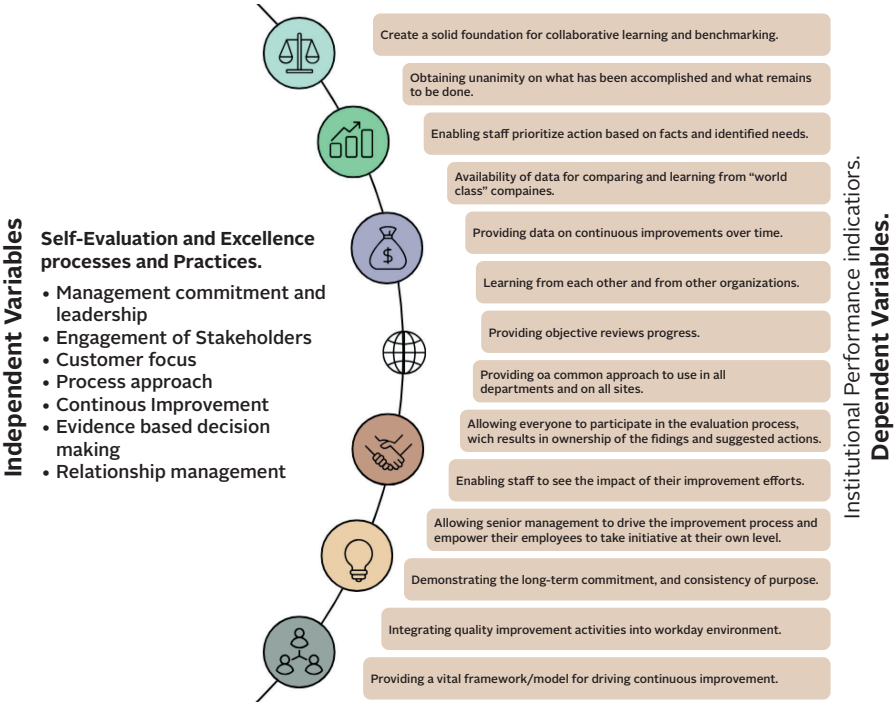
Whereby Y = Performance, X1 = Management Commitment and leadership,

X2 = Stakeholder Engagement, X3 = Continuous Improvement, X4 = Evidence Based Decision making, X5 = Customer Focus, X6 = Process Approach, X7 = Relationship management.

Further, β1, β2, β3, β4, β5, β6, and β7 are the Regression Coefficients, and ε is the Error term.

The reliability of the data was enhanced by cross-referencing multiple sources, and ethical considerations were upheld to ensure confidentiality and objectivity throughout the study. The thematic patterns helped generate the 14 dependent variables used in the study (Figure 2). These patterns are grounded in performance outcomes supported by good quality management and excellence practices, such as improved learning, benchmarking, collaboration, consistency, ownership, use of data, and long-term improvement.

Figure 2: Conceptual Framework of the study



These types of outcomes are well supported in literature from:

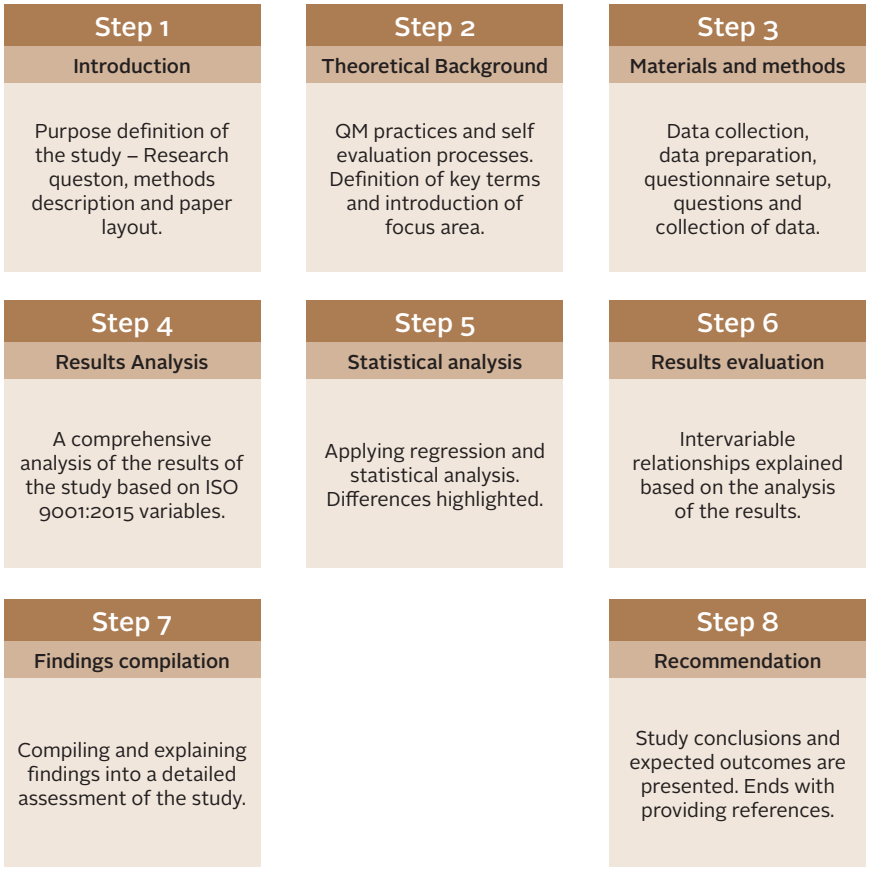
- ISO 9001:2015 performance outcomes – in the standard's Annex SL and Clause 10 ("Improvement") – ISO, (2024),
- EFQM 2020 model – which explicitly links enablers (independent variables) to performance results (dependent variables. (Figure 2). – EFQM (2024),
- CAF model for public administration – Common Assessment Framework
- PDCA / Deming Cycle theory – learning loops and engagement drive performance
- Quality management in the public sector – e.g. Luburić (2015), Dooren et al. (2017), Ishak (2022),

Table-1: Institutional performance indicators.

Dependent variable	Source Concept / Theory
Collaborative learning and benchmarking	EFQM „Learning and Innovation"; ISO 9001 continual improvement; (ISO, 2024; EFQM, 2024).
Unanimity on what has been done and remains to be done	PDCA / Deming cycle clarity of objectives; ISO 9001 Clause 6 „Planning" (ISO, 2024)
Prioritization based on facts and needs	Evidence-based management (ISO 9001 Clause 9 „Performance evaluation"); EFQM „Insights and performance" (EFQM, 2024)
Data availability for benchmarking	EFQM „Insights and performance"; ISO 9001 Clause 9
Data on continuous improvement	ISO 9001 Clause 10; CAF Results Criteria
Learning from others	EFQM „Learning & Innovation"
Objective reviews of progress	Internal audit (ISO 9001 Clause 9); CAF Results Criteria
Common approach across departments	Process approach; CAF „Processes" criterion
Participation in evaluation process	Stakeholder involvement (ISO 9001:2015 Principle 2); EFQM „Engaging stakeholders"
Staff seeing the impact of improvements	Empowerment (EFQM); PDCA cycle feedback
Senior management driving improvement	ISO 9001 „Leadership" clause; EFQM „Leadership"
Long-term commitment and consistency	ISO 9001:2015 „Leadership & commitment"; EFQM „Strategic direction"
Integrating improvement into daily work	TQM principles; CAF
Vital framework for continuous improvement	EFQM; ISO 9001 Clause 10

To further describe these indicators, Table 1 connects each dependent variable to quality management frameworks, such as ISO 9001, EFQM 2020, the PDCA/ Deming Cycle, and the CAF model.

Figure 3: Research design process



The flowchart (Figure 3) details the structured research methodology. The research began with the introduction of the study. The figure outlines an 8-step research process where in Step 1, the study's purpose is defined, focusing on QM practices and self-evaluation. In Step 2, the theoretical background is explained. Step 3 involves the materials and methods used in the study where data collection is outlined, data preparation and questionnaire distribution process. In Step 4, data collected from respondents is analyzed. In Step 5, statistical analysis is implemented where validation is performed using correlation and regression models. In Step 6, results are analyzed comparatively based on ISO 9001:2015 variables. In Step 7, we

compile the findings and explain the assessment in detail, and in Step 8, conclusions and recommendations are presented.

Results

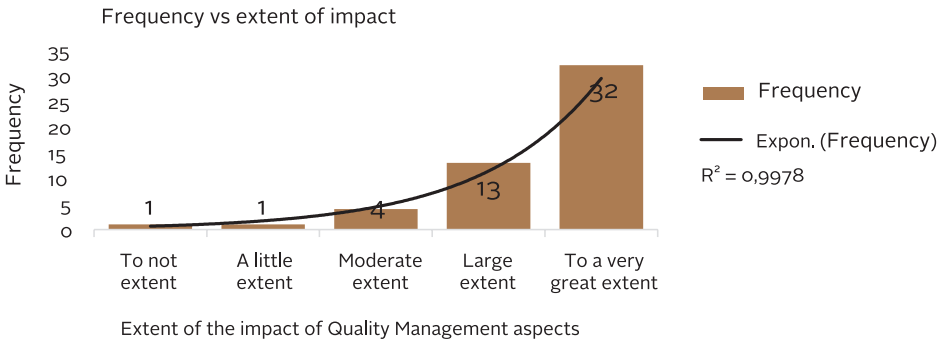
Respondents agreed to the extent of self-evaluation at CBK in various aspects. Many of those polled in the study responded that they strongly agree that self-evaluation focuses on leadership and management (a mean score of 4.2353), customer focus, and evidence-based decision-making (mean of 4.1961) (Table 2). The process approach obtained a mean value of 4.0; on continuous improvement, the study pointed at a highly significant focus with a mean of 4.0784; relationship management had a mean of 4.0196, and stakeholder management scored a mean of 4.0784.

Table 2: Self-assessment aspects of quality management

Quality management aspects	Mean	Standard deviation
Management commitment and leadership	4.2353	0.9293
Stakeholder engagement	4.0784	0.9766
Customer focus	4.1961	0.9385
Process approach	4.0000	1.0000
Continuous improvement	4.0784	0.9347
Evidence-based decision making	4.2353	0.9714
Relationship management	4.0196	1.0294

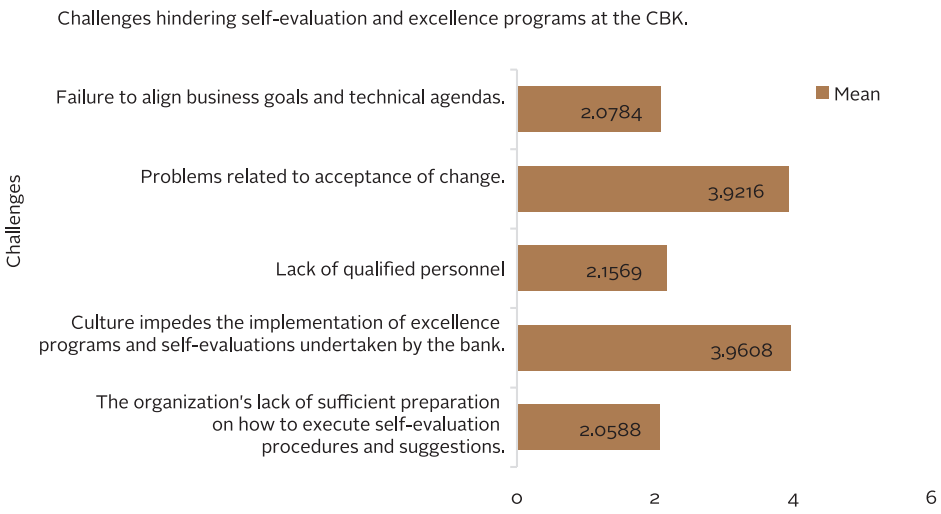
These findings indicate that respondents perceived self-evaluation to be significant in these areas within CBK (Figure 4). We note that to a very great extent, 32 respondents agreed that quality management in terms of self-evaluation has a big impact on the performance of the central bank. The R^2 value indicates the goodness of fit of the proposed model. An R-squared value of 0.9978 indicates that approximately over 99% of the variance in the dependent variable is attributed to the independent variables used in the study.

Figure 4: Impact of QM aspects on the institution



Part of the study also aimed to review the challenges hindering self-evaluation and the implementation of excellence models at the bank (Figure 5). The data reveals significant theoretical insights into the organizational barriers affecting the implementation of excellence programs and self-evaluation in the bank. The high mean values, 3.9608 and 3.9216, suggest that cultural resistance and issues related to organizational change are perceived by respondents as significant impediments to the success of these initiatives. This indicates the importance of considering cultural and change management theories when implementing quality programs, as organizational culture and resistance to change can significantly affect their efficacy.

Figure 5: Challenges hindering QM programs at the institution



On the other hand, the lower mean values (ranging from 2.0588 to 2.1569) reflect a moderate acknowledgment of operational barriers, such as inadequate preparation, lack of qualified personnel, and misalignment between business and technical strategies. These findings suggest that, while structural issues exist, they are perceived as less critical than cultural and change-related challenges. The interpretation of these values underscores the need for a dual focus on cultural adaptation and operational readiness when introducing organizational excellence and self-assessment programs.

Table 3: Correlation analysis between the dependent and independent values of self-evaluation and excellence model. (p-values have a 2-tailed significance.)

		Dependent variables													
Independent Variables.		**i.**	**ii.**	**iii.**	**iv.**	**v.**	**vi.**	**vii.**	**viii.**	**ix.**	**x.**	**xi.**	**xii.**	**xiii.**	**xiv.**
Management and Leadership	r	0.6932	0.5577	0.3797	0.5854	0.3011	0.7003	0.5507	0.5254	0.3986	0.1620	0.5992	0.4465	0.4571	0.3650
	p	***0.000***	***0.000***	***0.006***	***0.006***	***0.032***	***0.000***	***0.000***	***0.000***	***0.004***	***0.256***	***0.000***	***0.001***	***0.001***	***0.008***
Stakeholder Engagement	r	0.4324	0.5016	0.4040	0.3480	0.3038	0.5353	0.3935	0.5296	0.5348	0.3971	0.2392	0.1735	0.2353	0.3429
	p	***0.002***	***0.000***	***0.003***	***0.012***	***0.030***	***0.000***	***0.004***	***0.000***	***0.000***	***0.004***	***0.091***	***0.223***	***0.097***	***0.014***
Customer Focus	r	0.5878	0.4028	0.4261	0.5080	0.2798	0.4753	0.4737	0.3968	0.4879	0.4234	0.3523	0.4586	0.4686	0.5147
	p	***0.000***	***0.003***	***0.002***	***0.000***	***0.047***	***0.000***	***0.000***	***0.004***	***0.000***	***0.002***	***0.011***	***0.001***	***0.001***	***0.000***
Process Approach	r	0.4927	0.4696	0.5797	0.5646	0.4420	0.5657	0.3979	0.4583	0.5614	0.5616	0.3162	0.3365	0.3769	0.5236
	p	***0.000***	***0.001***	***0.000***	***0.000***	***0.001***	***0.000***	***0.004***	***0.001***	***0.000***	***0.000***	***0.024***	***0.016***	***0.006***	***0.000***
Continuous Improvement	r	0.5388	0.6427	0.6782	0.5527	0.4437	0.6161	0.5127	0.6367	0.5000	0.4635	0.2274	0.2710	0.3706	0.4241
	p	*0.000*	*0.000*	*0.000*	*0.000*	*0.001*	*0.000*	*0.000*	*0.000*	*0.000*	*0.001*	*0.109*	*0.054*	*0.007*	*0.002*
Evidence-based Decision making	r	0.6080	0.5558	0.5366	0.6793	0.4379	0.6566	0.5297	0.6022	0.7291	0.5184	0.4813	0.5700	0.5575	0.6139
	p	***0.000***	***0.000***	***0.000***	***0.000***	***0.001***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***
Relationship management	r	0.4693	0.6282	0.5117	0.5180	0.2866	0.6128	0.4898	0.7072	0.5454	0.5044	0.3121	0.2486	0.3490	0.4520
	p	***0.001***	***0.000***	***0.000***	***0.000***	***0.041***	***0.000***	***0.000***	***0.000***	***0.000***	***0.000***	***0.026***	***0.079***	***0.012***	***0.001***

This study uses correlation analysis to explore the strength and significance of relationships between independent variables (quality management practices) and dependent variables (performance indicators). While correlation does not imply causation, it provides insight into patterns of association that can inform hypotheses about institutional performance. As summarized in Table 3, the correlation coefficients (r) and their corresponding significance levels (p-values) indicate which variables are likely to be meaningfully related. Specifically, a p-value less than 0.05 ($p < 0.05$) suggests that the observed relationship is statistically significant, while $p < 0.001$ denotes a highly significant relationship. These thresholds are critical for testing the null hypothesis – that there is no relationship between the variables. In this study, the magnitude of r and the statistical significance of *p* have been jointly considered. While *Management and Leadership* exhibits the most consistent and statistically significant relationships, such as with "Learning from others" ($r = 0.7003$, $p = 0.000$), other dependent variables such as *Continuous Improvement* and *Evidence-Based Decision Making* also show robust correlations with several key independent variables. For instance, *Evidence-Based Decision Making* has a strong and highly

significant relationship with "*Learning from Others*" (r = 0.6566, p = 0.000, and "*Participation in the evaluation process*" (r = 0.7291, p = 0.000).

Notably, *Continuous Improvement* correlates significantly with "Unanimity on what has been done and remains to be done" (r = 0.6427, p = 0.000).

The role of significance testing in interpreting the results is crucial in our study. An examination across all dependent variables highlights four independent variables as particularly influential: "Learning from others," "Participation in the evaluation process," "Senior management driving improvement," and "Long-term commitment and consistency." These variables frequently show high and significant correlations across multiple outcomes, thus reinforcing the hypothesis that leadership commitment, learning culture, and continuous engagement are essential drivers of performance and quality management in the CBK.

Table 4: Estimation of Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.222	0.516		2.370	0.022
Management Commitment and Leadership	0.270	0.127	0.330	2.126	0.039
Stakeholder Engagement	0.227	0.161	0.223	1.412	0.165
Customer Focus	0.058	0.145	0.065	0.401	0.691
Process Approach	0.227	0.141	0.266	1.606	0.116
Continuous Improvement	0.018	0.133	0.019	0.132	0.896
Evidence-Based Decision making	0.094	0.165	0.107	0.572	0.571
Relationship management	0.004	0.126	0.005	0.032	0.975

a. Dependent Variable: Extent to which self-assessment and evaluation impact the central bank in delivering its mandates. (Performance)

As shown in Table 4 we took note of the statistical significance of the various variables. Therefore, to further validate the findings from the correlation analysis, a multiple regression analysis was conducted to examine which quality management principles predict the extent to which self-assessment and evaluation impact the CBK's performance. As shown in Table 4, only *Management Commitment and Leadership* had a statistically significant effect (β = 0.330, p = 0.039), reinforcing its central role in driving organizational performance. Although other variables, such as *Stakeholder Engagement* and *Process Approach,* showed moderate standardized coefficients, their lack of statistical significance suggests that leadership may mediate or overshadow their effects. This reinforces the conclusion that leadership commitment is not only consistently correlated with performance but is also a unique predictor when multiple quality factors are considered simultaneously.

These findings strengthen the justification for prioritizing leadership practices in quality improvement frameworks within public institutions.

To determine which quality management principles significantly influence CBK's performance, a multiple regression model was developed using the seven core practices as predictors. The regression equation is as follows:

$$Y = \beta_0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + \beta 7X7 + \varepsilon \quad [2$$

Where:

- Y = Estimated performance (extent to which self-assessment and evaluation help CBK deliver on its mandates),
- X_1–X_7 = Independent variables: Management and Leadership, Stakeholder Engagement, Customer Focus, Process Approach, Continuous Improvement, Evidence-Based Decision Making, Relationship Management,
- β_0 = Intercept, and ε = Error term.

Therefore, from the coefficient table,

Y= 1.222 + (0.270*0.039) + (0.227*0.165) + (0.058*0.691) + (0.227*0.116) + (0.018+0.896) + (0.094+0.571) + (0.004*0.975) + 0.516 = 3.434165

The regression coefficients (Table 4) show that only Management and Leadership had a statistically significant effect on performance (β = 0.270, p = 0.039), supporting its strong influence. All other variables had p-values above 0.05, indicating non-significance when controlling for other factors. We note that process orientation (p = 0.116) and continuous improvement (p = 0.896) are non-significant in the regression model, and their contribution to performance is not unique or direct when controlling for leadership and other variables. Additionally, stakeholder engagement is non-significant in the regression model. Although it shows a moderate positive coefficient (β = 0.227), the effect is not statistically significant (p = 0.165). This may suggest that its influence is either indirect or mediated by other factors, such as leadership or evidence-based decision-making.

It is important to note that financial performance was not measured and assessed in this study, since the study did not include direct financial metrics such as revenue, profit, or cost efficiency. Therefore, conclusions about financial performance were not drawn. Any reference to "performance" is strictly based on institutional effectiveness in fulfilling CBK's public mandates (e.g., stakeholder satisfaction, internal improvement, and mandate delivery) as captured by the survey responses.

The final predicted performance score from the regression equation is approximately 3.43 on a scale of 1–5, indicating moderate overall effectiveness. However, the statistical results emphasize that leadership commitment is the most critical driver among the quality management dimensions assessed. These findings also align with the earlier correlation analysis, where Management and Leadership demonstrated consistently strong and statistically significant relationships across most independent variables. The regression model thus adds robustness by confirming that leadership remains the sole significant predictor when accounting for the combined effects of other variables.

Discussion

This study underscores key insights from scholars such as Jeston (2022) and Ferrari et al. (2018), who highlight the significance of leadership, stakeholder engagement, and continuous improvement within public institutions. The literature also emphasizes the significance of structured quality management (QM), particularly through self-evaluation and excellence models to improve institutional performance, especially within public institutions (EFQM, 2024; Ishak, 2022; Kalfa & Yetim, 2018). These works broadly conclude that leadership, stakeholder focus, and continuous improvement are critical components of institutional excellence.

Our findings are consistent with previous studies, reinforcing that self-evaluation and excellence frameworks can drive improved performance when integrated into organizational culture and supported by effective leadership. Additionally, Central Banks could achieve benefits by tailoring internationally recognized evaluation models, such as the EFQM or the Baldrige model, to better suit local needs. This adaptation could enhance process transparency, foster greater stakeholder involvement, and align with broader economic development objectives.

Our study contributes to the literature by providing empirical validation in a central bank context, an area underrepresented in existing research. It supports the theoretical premise that leadership is fundamental (Hillman, 1994; Nenadál, 2020) but goes further by quantifying its predictive power over other factors using regression analysis. It also highlights the limitations of other commonly assumed drivers (e.g., stakeholder engagement, process approach), suggesting these may be contextually mediated by leadership effectiveness.

The current study is empirically testing the correlation and regression relationships between specific QM practices and performance outcomes in the Central Bank of Kenya (CBK). While existing literature identifies multiple practices as essential, this research uniquely isolates *Management Commitment and Leadership* as the only statistically significant predictor of performance when other variables are controlled. Thus, it empirically refines prior claims by narrowing down the most impactful driver in a central banking context.

Regarding the hypotheses, we note that,

H1: A process approach and continuous improvement mindset enhance organizational performance. The correlation analysis initially indicated moderately strong and statistically significant relationships between performance and both Process Approach ($r = 0.5797$, $p < 0.001$) and Continuous Improvement ($r = 0.6782$, $p < 0.001$). However, in the regression model, where all variables were considered simultaneously, these two variables were not statistically significant ($p = 0.116$ and $p = 0.896$, respectively). This suggests that while these practices are correlated with performance, their independent predictive power diminishes when leadership and other variables are accounted for. Therefore, H1 is only partially supported.

H2: Effective leadership and stakeholder engagement are key predictors of successful quality management, service delivery, and effectiveness. The statistical results provide strong support for the leadership component of this hypothesis.

Management and Leadership emerged as the only significant predictor in the regression model (β = 0.270, p = 0.039), confirming its central role. Stakeholder Engagement, while showing moderate correlations in the bivariate analysis (r values ranging from 0.3038 to 0.5353), was not significant in the regression (p = 0.165). Thus, H2 is partially supported; leadership is clearly predictive, while stakeholder engagement may have an indirect and complementary role.

The study found that self-evaluation significantly impacts the bank's performance, encouraging continuous improvement and integrating evaluation into organizational culture. Participants emphasized the need for leadership to engage more actively, adopt continuous improvement strategies, and phase out outdated evaluation methods. They also recommended introducing performance metrics and exploring sustainability initiatives like corporate social responsibility (CSR) to align with broader economic goals. The study notes that organizations focused on quality must allocate resources to the evaluation process and ensure strategic goals are established.

Lastly, we emphasize evidence over assumption. While many frameworks advocate a holistic approach, this research pragmatically shows that not all practices have equal influence. Identifying leadership as the keystone factor provides clear direction for institutional reform efforts, Further research should explore how leadership mediates or amplifies other QM dimensions in various institutional settings.

Conclusion

The study followed a structured research design to investigate the relationship between institutional quality management and self-evaluation models in public institutions, specifically the Central Bank of Kenya. The study began with a comprehensive literature review examining the role of quality management in the performance of public institutions. This review provided the theoretical foundation for the research, guiding the development of hypotheses to test the effectiveness of these models in an emerging economy.

Two hypotheses were developed, focusing on critical factors such as leadership, stakeholder engagement, and continuous improvement. These variables were chosen to test their relationship with organizational performance, and institutional effectiveness. Data collection was conducted through surveys with employees within the CBK, including management and staff, offering a comprehensive understanding of how QMS principles are applied and their outcomes.

This study contributes to the growing body of research on quality management in public institutions by offering empirical evidence from a central bank. It not only supports prior theoretical frameworks but also clarifies which QM elements has the most significant influence in practice. By quantifying the unique effect of leadership, it provides a more focused understanding of institutional drivers, especially in the public sector.

As a recommendation, policymakers should focus on building strong, committed leadership as a cornerstone of institutional reform and performance improvement.

Leadership training and accountability should be central to public sector operations. Furthermore, institutions should adopt structured self-assessment models like EFQM not merely for compliance but as tools for continuous improvement of governance.

Future research and institutional practice should integrate financial and efficiency-based indicators to fully capture the economic impact of QM initiatives in public institutions. ■

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