

**Total Quality Management and Service Delivery in Local Government: A Case Study of Kilembe Sub-County
in Kasese District Local Government**

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Abstract

This study examined the influence of Total Quality Management (TQM) on service delivery outcomes in local government, using Kilembe Sub-County in Kasese District as a case study. Kilembe Sub-County-historically the site of Uganda's largest copper mining operations and now a rapidly developing peri-urban administrative area at the base of the Rwenzori Mountains had since 2018 been implementing a phased TQM programme funded through the Local Government Development Programme III (LGDP III) aimed at improving the quality, efficiency, and citizen-responsiveness of public service delivery across health, education, road maintenance, agriculture extension, and administrative services. Drawing on a cross-sectional survey of 216 respondents comprising sub-county administrative staff, health centre workers, school staff, community development officers, and service beneficiaries from across Kilembe Sub-County's five parishes, the study examined how customer focus orientation, continuous improvement practices, and employee involvement and empowerment-the three TQM pillars operationalised in the LGDP III programme influenced service delivery quality, timeliness, and citizen satisfaction outcomes. Descriptive statistics revealed moderate TQM implementation levels (means 3.28–3.61). Pearson correlation confirmed significant positive relationships between all three TQM dimensions and service delivery quality ($r = 0.581-0.714$, $p < .001$). Multiple linear regression demonstrated that the three TQM dimensions collectively explained 63.7% of the variance in service delivery quality ($R^2 = 0.637$, $F = 38.84$, $p < .001$), with customer focus orientation emerging as the strongest predictor ($\beta = 0.418$, $p < .001$). Structural Equation Modelling confirmed customer focus as the construct with the largest total effect on service delivery (total $\beta = 0.521$), with employee involvement partially mediating this relationship (indirect $\beta = 0.149$). The study concluded that TQM implementation significantly enhanced local government service delivery in Kilembe Sub-County and recommended sustained TQM investment, citizen feedback system development, staff capacity building, and inter-departmental TQM coordination as priority interventions.

Keywords: Total Quality Management, TQM, Service Delivery, Local Government, Customer Focus, Continuous Improvement, Employee Empowerment, Kilembe Sub-County, Kasese District, SEM, Uganda

1.0 Background of the Study

Total Quality Management-a management philosophy that placed continuous quality improvement, customer satisfaction, employee involvement, and systematic process management at the centre of organisational strategy had been progressively adopted in public sector contexts globally as a tool for transforming bureaucratic, compliance-oriented government service delivery into citizen-centred, responsive, and efficient public services(Irumba et al., 2024). In Uganda's local government context, TQM principles had been incorporated into successive local government development frameworks, including the National Service Delivery Survey recommendations and the Local

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

Government Management Service Delivery Standards that mandated sub-county governments to meet specified quality benchmarks across health, education, agricultural extension, and administrative services(Christopher, 2024). The LGDP III programme, implemented from 2016 to 2022 with funding from the World Bank and Government of Uganda, had embedded TQM training and quality improvement system investments in 56 district and lower local governments, with Kasese District and its sub-counties including Kilembe -among the primary beneficiaries(Ntirandekura, Ainebyoona, et al., 2022).

Kilembe Sub-County, encompassing the former Kilembe Mines township and surrounding agricultural and trading communities at the foothills of the Rwenzori Mountains, had a population of approximately 68,000 residents served by a sub-county administrative headquarters, three health centres (one HC III and two HC IIs), fourteen primary schools, two secondary schools, and a network of agricultural extension workers and community development officers(Christopher, Komunda, et al., 2022). The sub-county's proximity to Kasese Municipality and to the Rwenzori Mountains ecotourism zone gave it an economically mixed character combining subsistence agriculture, copper mining legacy industries, tourism services, and small-scale trading whose diverse citizen population had correspondingly diverse and demanding service quality expectations(Julius et al., 2026). The LGDP III TQM programme in Kilembe had focused specifically on implementing customer service charters in health and administrative services, establishing citizen feedback mechanisms through sub-county community dialogue sessions, conducting staff quality improvement training, and introducing standardised service process documentation across key service delivery functions(Julius & Audrey, 2026b).

Despite this structured TQM investment, preliminary assessments by Kasese District Local Government's monitoring and evaluation unit in 2021 documented mixed service delivery improvement outcomes with significant gains in health facility waiting time reduction and agricultural extension officer visit frequency, but limited improvement in road maintenance responsiveness and administrative service processing times(Audrey & Kazaara, 2025). These mixed outcomes suggested that TQM implementation quality varied across service domains and that the relationship between TQM dimensions and service delivery quality was differentiated in ways that warranted systematic empirical investigation(Kazaara & Kazaara, 2025). Understanding which TQM dimensions most powerfully drove service delivery improvement in the Kilembe Sub-County context would enable more targeted TQM investment and support evidence-based TQM programme refinement in similar lower local government contexts across Uganda.

2.0 Problem Statement

Despite the LGDP III TQM programme's substantial investment in Kilembe Sub-County since 2018, citizen satisfaction surveys conducted by Kasese District Local Government in 2020 and 2022 recorded overall service satisfaction scores of 54.2% and 56.8% respectively below the district's target of 70% and below the national average documented by the Uganda National Service Delivery Survey (2021). These satisfaction gaps, occurring after three years of TQM investment, raised questions about which specific TQM implementation dimensions were most

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

effectively translating into citizen-experienced service quality improvements, and which were receiving investment without generating commensurate service delivery gains(Christopher, Muhindo, et al., 2022). The absence of systematic empirical measurement of TQM-service delivery relationships in Kilembe's specific sub-county context prevented evidence-based programme adaptation and made it impossible to direct scarce TQM investment resources to the highest-impact dimensions.

3.0 Main Objective

The main objective was to examine the influence of Total Quality Management on service delivery in Kilembe Sub-County, Kasese District. Specific objectives were: (i) to assess how customer focus orientation influenced service delivery quality outcomes; (ii) to evaluate the effect of continuous improvement practices on service delivery timeliness and efficiency; and (iii) to determine the relationship between employee involvement and empowerment and service delivery citizen satisfaction.

4.0 Literature Review

4.1 Theoretical Framework

The study was anchored on Deming's System of Profound Knowledge (Deming, 1986), which identified four interdependent knowledge components foundational to TQM: appreciation for a system (understanding the interconnected processes that together produced service outcomes), knowledge about variation (understanding the statistical basis of quality variation and its implications for process improvement), theory of knowledge (understanding how management learning translated into improved practice), and psychology (understanding the human motivational dynamics that determined whether quality improvement efforts were sustained)(Christopher & Shamirah, 2025). Deming's framework predicted that TQM's service delivery impact would be maximised when all four knowledge components were simultaneously addressed when service processes were systematically redesigned (systems understanding), when variation monitoring was data-driven (knowledge about variation), when learning loops were institutionalised (theory of knowledge), and when staff motivation for quality improvement was sustained through genuine empowerment rather than compliance mandates (psychology). The New Public Management Theory (Hood, 1991) informed the study's positioning of TQM within the broader public sector reform agenda, identifying customer orientation, performance measurement, and decentralised management as the NPM principles most aligned with TQM's quality improvement methodology(Moses et al., 2025). The Service Quality (SERVQUAL) Model (Parasuraman et al., 1988) provided the measurement framework for service delivery quality, identifying five quality dimensions reliability, responsiveness, assurance, empathy, and tangibles that together determined citizen-perceived service quality and that mapped onto the TQM customer focus dimension's constituent elements.

4.2 Empirical Literature

Research on TQM implementation and service delivery quality in African local government contexts documented significant positive effects conditioned by implementation fidelity and organisational readiness(Ntirandekura, Ainebyoona, et al., 2022). Kariuki (2020) found in a study of Kenyan county government services that TQM

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

implementation measured across customer focus, continuous improvement, and employee involvement dimensions significantly improved citizen satisfaction scores by an average of 18.4 percentage points over a three-year implementation period, with customer focus being the strongest satisfaction predictor(Faridah et al., 2023). In Uganda specifically, Mwesigwa (2020) documented in a multi-district study that local governments implementing TQM principles through the LGDP III programme achieved service delivery quality scores 23% higher than comparison districts without TQM support, though implementation quality varied significantly with management commitment and staff capacity(Julius & Audrey, 2026a). Namutebi (2021) found in a study of Ugandan health facilities that continuous improvement practices including systematic root cause analysis of service quality failures and structured process improvement cycles were the strongest predictor of health service quality improvement among the three TQM dimensions, generating a 28% reduction in patient waiting times and a 34% improvement in treatment protocol adherence in facilities with active quality improvement committees(Alex & Devis, 2023).

5.0 Methodology

A cross-sectional mixed-methods design was adopted. The study population comprised sub-county administrative staff, service delivery frontline workers, and service beneficiaries in Kilembe Sub-County(Sarah et al., 2024). Stratified random sampling across the five parishes yielded 216 respondents: sub-county administrative and management staff (48), health centre clinical and administrative staff (46), primary and secondary school staff (52), agricultural and community development extension officers (36), and service beneficiary community members (34). Cronbach's Alpha: customer focus orientation 0.86, continuous improvement practices 0.83, employee involvement and empowerment 0.81, service delivery quality 0.89. SPSS 26 and AMOS 24 were used(Nelson et al., 2022). Ten key informant interviews with sub-county chiefs, health centre managers, and school headteachers, and four parish-level focus group discussions provided qualitative triangulation.

6.0 Results

6.1 Descriptive Statistics

Table 1: Descriptive Statistics: TQM Dimensions and Service Delivery Quality (N = 216)

Variable	N	Min	Max	Mean	Std. Dev
Customer Focus Orientation	216	1.00	5.00	3.61	0.84
Continuous Improvement Practices	216	1.00	5.00	3.44	0.91
Employee Involvement & Empowerment	216	1.00	5.00	3.28	0.96
Service Delivery Quality	216	1.00	5.00	3.47	0.88

The descriptive results reveal a consistent pattern of moderate TQM implementation across all three dimensions, with customer focus orientation receiving the highest mean (mean = 3.61, SD = 0.84), reflecting the LGDP III programme's primary emphasis on service charter development and citizen feedback mechanisms-investments that had generated the most visible and immediately experienced TQM improvements among service beneficiaries(Nelson et al., 2022). Citizen respondents in focus group discussions described the introduction of complaint suggestion boxes at the sub-

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

county health centre and the sub-county administrative offices as the most tangible manifestation of customer focus orientation, though they noted that follow-up actions on submitted complaints were inconsistent, undermining the credibility of the feedback mechanism. Continuous improvement practices received a moderate mean (mean = 3.44, SD = 0.91), reflecting partial implementation of quality improvement cycles with the sub-county health centre having established an active Quality Improvement Committee that met monthly, while other service departments had more nominal improvement planning processes(Ariyo, 2023). Employee involvement and empowerment received the lowest mean (mean = 3.28, SD = 0.96), reflecting the persistent challenges of engaging frontline staff in quality improvement decision-making within the hierarchical administrative culture of Uganda's local government system, where staff expressed significant uncertainty about their authority to implement service improvements without explicit management approval(Ntirandekura, Friday, et al., 2022).

6.2 Correlation Analysis

Table 2: Pearson Correlation Matrix: TQM Dimensions and Service Delivery Quality (N = 216)

Variable	1	2	3	4
1. Customer Focus Orientation	1.000			
2. Continuous Improvement Practices	0.571**	1.000		
3. Employee Involvement & Empowerment	0.547**	0.562**	1.000	
4. Service Delivery Quality	0.714**	0.651**	0.581**	1.000

** Correlation is significant at the 0.01 level (2-tailed)

Source: Primary Data, 2025

All three TQM dimensions demonstrated highly significant positive correlations with service delivery quality(Julius & Audrey, 2025a). Customer focus orientation showed the strongest correlation ($r = 0.714$, $p < .01$), confirming that the quality of the sub-county's commitment to understanding and responding to citizen service expectations was the most powerful TQM driver of service quality outcomes(Julius et al., 2024). This strong correlation was consistent with Deming's identification of customer knowledge as the foundational quality improvement input and with the SERVQUAL model's emphasis on the gap between customer expectations and service perceptions as the primary determinant of service quality judgement. Continuous improvement practices demonstrated a strong positive correlation ($r = 0.651$, $p < .01$), and employee involvement and empowerment showed the weakest but highly significant correlation ($r = 0.581$, $p < .01$)-a finding that, given its status as the least developed TQM dimension, implied high potential returns to investment in genuine staff empowerment for quality decision-making(Julius & Audrey, 2025b).

6.3 Regression Analysis

Table 3: Regression Model Summary: TQM Dimensions and Service Delivery Quality

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

Model	R	R ²	Adj. R ²	Std. Error	F	Sig.
1	0.798	0.637	0.631	0.537	38.84	< .001

Source: Primary Data, 2025

Table 4: Regression Coefficients: TQM Predictors of Service Delivery Quality, Kilembe Sub-County, Kasese

Variable	B	SE	Beta (β)	t	Sig.
(Constant)	0.518	0.224		2.313	.022
Customer Focus Orientation	0.407	0.073	0.418	5.575	< .001
Continuous Improvement Practices	0.311	0.078	0.322	3.987	< .001
Employee Involvement & Empowerment	0.228	0.071	0.249	3.211	.002

Dependent Variable: Service Delivery Quality

Source: Primary Data, 2025

The regression model was highly significant ($F = 38.84$, $p < .001$), with the three TQM dimensions collectively explaining 63.7% of variance in service delivery quality ($R^2 = 0.637$). Customer focus orientation was the strongest predictor ($\beta = 0.418$, $p < .001$), confirming that the sub-county government's investment in understanding citizen needs, implementing service charters, and establishing feedback mechanisms generated the largest service quality returns of any TQM investment (Christopher & Shamirah, 2025). Continuous improvement practices was the second strongest predictor ($\beta = 0.322$, $p < .001$), and employee involvement and empowerment contributed a significant but smaller positive effect ($\beta = 0.249$, $p = .002$) (Ntirandekura, Friday, et al., 2022). The regression coefficients collectively implied a TQM investment priority sequence: customer focus capacity building should precede continuous improvement system development, which should precede staff empowerment initiatives reflecting both the logical temporal sequence of TQM implementation and the relative maturity of each dimension's development in Kilembe's specific context.

6.4 Structural Equation Model and Path Analysis

Table 5: SEM Fit Indices: TQM and Service Delivery Quality Model, Kilembe Sub-County

Fit Index	Value	Threshold	Assessment
χ^2/df	2.08	< 3.0	Good fit
CFI	0.963	≥ 0.95	Good fit
RMSEA	0.062	< 0.08	Acceptable
SRMR	0.053	< 0.08	Good fit
GFI	0.944	≥ 0.90	Good fit
TLI	0.952	≥ 0.90	Good fit

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

Source: Primary Data, 2025

Table 6: Structural Path Coefficients: TQM and Service Delivery Quality SEM, Kilembe Sub-County, Kasese District

Path	Std. β	SE	CR	p	Decision
Customer Focus $\rightarrow$ Service Delivery Quality	0.381	0.074	5.149	< .001	Supported
Continuous Improvement $\rightarrow$ Service Delivery Quality	0.298	0.079	3.772	< .001	Supported
Employee Involvement $\rightarrow$ Service Delivery Quality	0.224	0.072	3.111	.002	Supported
Customer Focus $\rightarrow$ Employee Involvement (med. path)	0.472	0.083	5.687	< .001	Supported
Indirect: Customer Focus $\rightarrow$ Empl. Involvmnt $\rightarrow$ Quality	0.149	0.046	3.239	.001	Supported
Total Effect: Customer Focus $\rightarrow$ Service Quality	0.521				
Total Effect: Continuous Improvement $\rightarrow$ Service Quality	0.298				
Total Effect: Employee Involvement $\rightarrow$ Service Quality	0.224				

Source: Primary Data, 2025

The structural model confirmed employee involvement and empowerment as a significant partial mediator of the customer focus–service delivery quality relationship (indirect $\beta = 0.149$, $p = .001$). This mediation pathway reflected a logically coherent organisational dynamic: genuine customer focus orientation including meaningful citizen consultation, systematic feedback collection, and management responsiveness to citizen concerns created the institutional conditions within which frontline staff felt both authorized and motivated to exercise quality improvement initiative, generating service delivery quality improvements through the employee empowerment channel in addition to the direct customer orientation channel. The total effect of customer focus on service delivery quality ($\beta = 0.521$) substantially exceeded its direct effect ($\beta = 0.381$), confirming the compounding returns on customer focus investment that materialized through its facilitation of genuine staff empowerment.

7.0 Discussion, Conclusions, and Recommendations

The study confirms that TQM implementation significantly and positively influenced service delivery quality in Kilembe Sub-County, with the three TQM dimensions collectively explaining 63.7% of quality variance. The dominance of customer focus orientation (total $\beta = 0.521$) and its compounding mediated effect through employee

Received: 14.09.2026

Accepted: 20.09.2026

Published on: 30.09.2026

empowerment established the TQM investment priority sequence with clarity: building genuine customer understanding and service standard commitment was both the most powerful direct quality driver and the foundational enabler of the staff empowerment that amplified TQM's quality returns. The below-citizen-satisfaction-target performance documented in the district surveys (54–57% satisfaction against a 70% target) was consistent with the moderate TQM implementation scores (3.28–3.61), suggesting that scaling up TQM implementation quality across all three dimensions would generate the service quality improvements required to meet the district's satisfaction targets. Recommendations: (i) Kilembe Sub-County should establish a permanent Citizen Service Quality Desk at the sub-county headquarters staffed daily, with monthly service performance reports published on the community notice board as the institutional anchor of customer focus orientation; (ii) all service departments should establish functional Quality Improvement Committees meeting bi-monthly, with standardised agendas, action registers, and outcome reports that create visible continuous improvement accountability; (iii) sub-county management should develop a Staff Quality Empowerment Policy explicitly delegating authority to frontline staff to implement specified categories of service quality improvements without prior management approval; (iv) Kasese District should develop a TQM Champions Programme identifying one TQM focal person per sub-county department who receives enhanced training and serves as the internal quality improvement resource for their department; and (v) the Ministry of Local Government should integrate TQM compliance indicators citizen satisfaction scores, quality committee activity records, and service charter adherence rates into the Local Government Assessment Tool annual scoring framework, creating systemic incentives for TQM investment maintenance.

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