

EFFECT OF CUSTOMER RELATIONSHIP MANAGEMENT ON SERVICE DELIVERY IN MANDERA COUNTY, KENYA

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Abstract: The distribution of public services in Kenya encounters major obstacles that particularly affect Mandera County Government through its devolved administrative units. The public service delivery system experiences negative impacts because of five main issues, which include inefficient procurement procedures and insufficient stakeholder collaboration, disjointed information management systems, and weak inventory control methods. The systemic problems of the organization create barriers that limit the efficient operation of county government and decrease public confidence in county institutions. Therefore, this study investigated the effect of customer relationship management on service delivery in Mandera County, Kenya. The research used a descriptive research design. The research examined a total of 3761 employees who work in the ten different ministries of the Mandera County Government. The study used stratified random sampling to choose 376 participants from different ministries as a representative sample. The researchers gathered data through structured questionnaires. The researchers used SPSS Version 26 to perform quantitative data analysis. The researchers used descriptive statistics to summarize the data. The study also used inferential statistics such as correlation analysis and multiple regression analysis. The results were presented in Tables. The finding revealed that customer relationship management ($\beta = 0.191$, $p = 0.000$) had positive and statistically significant effects on service delivery in Mandera County Government. The study concludes that strengthening citizen engagement, enhancing communication systems, fostering supplier collaboration, and improving inventory control are critical for improving service delivery outcomes. The study recommends that the county institutionalize structured feedback systems and improve complaint resolution processes to strengthen customer relationship management.

Keywords: Customer Relationship Management, Supply Chain Management Practice, Service Delivery.

1. INTRODUCTION

Public institutions use service delivery as their main indicator to evaluate how efficiently and responsively they serve citizens while maintaining institutional accountability (Rana, Ali, Riaz, & Irfan, 2019). The system measures how effectively government organizations deliver their services to citizens by assessing three essential service dimensions which include service accessibility, service quality, and user satisfaction, and service availability between scheduled times (World Bank, 2019). Public trust builds through organizations that deliver services effectively because their work supports economic growth and enhances people's quality of life. The public institutions of developing nations still face ongoing problems which include their limited operational capacity and their tendency to work inefficiently and their problem with corruption which prevents them from providing basic services (Transparency International Kenya, 2021).

The service delivery results of an organization depend on its supply chain management practices which have become essential elements that determine those outcomes. The process involves procurement planning and supplier sourcing and inventory management and distribution logistics and contract management to achieve efficient resource mobilization and delivery (Mutisya 2022). Supply chain management has developed from an industrial function into a public sector strategic

tool which enhances financial value and organizational accountability and service delivery dependability (Lee & Choi, 2021).

Globally research demonstrates that innovative supply chain practices lead to substantial improvements in public service delivery. In South Korea, supply chains achieved digital transformation during the COVID-19 pandemic, which enabled them to deliver essential supplies on time while sustaining their vital operations (Lee & Choi, 2021). In Brazil public hospitals achieved better medicine access and decreased waste through their use of integrated procurement platforms together with real-time inventory monitoring (Musyoka & Magutu, 2022). The study demonstrates how strong supply chain systems can create operational improvements in organizations that work with limited resources.

In Africa, the African continent experiences service delivery challenges because its supply chain governance systems remain uncoordinated and its organizations have insufficient capacity to manage suppliers. Research indicates that inadequate supplier selection processes and insufficient performance assessment methods together with lack of transparency create project delays and increased costs and service interruptions across different industries (Chikasa 2021). In Nigeria and Uganda, the public supply chain system faces operational challenges because organizations fail to follow procurement regulations and because they use digital technologies at insufficient levels (Transparency International Kenya 2021).

In Kenya, the devolution process has given county governments increased authority to manage essential services which include health care and water supply and infrastructure development and agricultural services. The ability of most counties to achieve their service delivery goals through effective supply chain management remains a major challenge (Mutinda & Ngugi, 2020). The combination of procurement delays and inconsistent supplier evaluation and limited supply chain technology integration leads to service delivery backlogs and produces citizen dissatisfaction (Kibet, 2024; Owich, 2023). The Office of the Auditor-General's audits revealed persistent procurement regulation violations and ineffective contract administration and insufficient capability throughout county supply chain units (Transparency International Kenya, 2021). Musyoka and Magutu (2022) established that Machakos County experienced major delays in development project completion due to its procurement planning deficiencies and lack of stakeholder involvement which blocked essential services from operating. The research by Mutisya (2022) demonstrated that governance deficiencies together with limited use of integrative technologies restrict supply chain efficiency throughout Kenyan government agencies.

In Mandera County, its remote nature of together with its security issues and inadequate infrastructure results in supply chain problems that become more difficult to solve. The existing factors result in two main problems which include delayed procurement processes and essential supply shortages and limited public service access (USAID, 2019). The evidence which has emerged shows that counties which use transparent supplier sourcing methods together with active contract monitoring and electronic supply chain management systems achieve better service delivery results (Munyi, 2024). Although people now understand that supply chain management helps governments operate better there are still very few studies that research how these practices impact service delivery in Mandera County. The study investigates how supply chain management practices affect service delivery in Mandera County Government to support evidence-based policy reforms through the devolved governance system.

Service delivery measures how well institutions and organizations deliver services to users through their efficient and dependable service methods which fulfill user needs and expectations (Amanfi, 2024). Osborne (2020) presents service delivery as a dynamic process which enables value creation between providers and recipients, showing that successful service delivery requires both operational procedures and customer service user perceptions to be well managed. Teshome, Belete, Mengiste, and Gizaw (2020) demonstrate that public service delivery assessment needs to measure customer satisfaction because it shows how well institutions address stakeholder demands.

Supply chain management (SCM) practices function as a collection of operational activities which organizations implement to achieve better collaboration and supply chain performance results. The practices enable organizations to create value through their interactions with upstream suppliers and downstream customers and their management of internal business activities. SCM practices according to Li et al. (2019) consist of customer relationship management and strategic supplier partnerships and information sharing which involves both quantity and quality and postponement strategies. The organization designed these activities to improve operational effectiveness through two main methods which include providing accurate and timely information and establishing supplier partnerships and enabling flexible production and inventory management.

Organizations use customer relationship management (CRM) systems to strengthen their public procurement processes by creating strong ties with service users and obtaining their feedback. Zhang and Zhu (2019) showed that companies which implement strong customer relationship management systems create transparent business operations because they use organized systems to collect customer feedback and they handle customer complaints within a short time period. Mugambi and Ngari (2021) showed that organizations which maintain ongoing customer contact through survey methods and public forums create higher levels of trust and accountability, which serve as essential elements for their health and education service operations. Organizations use customer relationship management (CRM) systems to increase user satisfaction while they obtain real-time information from customers, which enables them to adjust their procurement processes. The researchers will examine CRM through three indicators, which include the existence of customer feedback systems and the average time needed to handle customer complaints and the level of stakeholder participation in platforms.

The Constitution of Kenya (2010) established Mandera County as one of Kenya's 47 decentralized administrative units which enables local governance while improving public service delivery. The County exists as an arid and semi-arid land (ASAL) territory because it lies in northeastern Kenya and shares its borders with Ethiopia and Somalia. The region encounters various development obstacles because it lacks basic infrastructure while its natural resources are restricted and its population lives in remote areas. The Mandera County Government faces difficulties in providing vital services which include healthcare services and water supply and educational facilities and road construction because of existing structural limitations (Council of Governors [CoG], 2023).

2. STATEMENT OF THE PROBLEM

The delivery of public services needs to work effectively so people who live in neglected areas of their communities can access necessary healthcare, educational institutions, infrastructure facilities, and water services. The devolved governance system in Kenya functions to improve public service delivery at the county level. The Mandera County in northeastern arid areas of the country experiences ongoing difficulties with service provision. The project experiences difficulties because essential supplies frequently become unavailable and project work advances slowly and citizens show minimal satisfaction with the results. The Office of the Auditor-General 2021 report identified only 61 of development projects as completed on schedule while the Controller of Budget 2022 report showed numerous problems with procurement and contract management and resource utilization throughout the organization.

The issues stem from deficient supply chain management practices which serve as the core element for delivering public services effectively. Service delivery suffers from several problems because of inefficient customer feedback systems and fragmented procurement processes and inadequate inventory management systems and weak supplier relationships. Mandera's geographic isolation together with its security problems and inadequate ICT systems and restricted supplier network creates numerous SCM challenges which prevent the county government from delivering timely and effective services to its residents according to Transparency International Kenya and USAID. The county fails to achieve essential service benchmarks because it continues to struggle with basic service requirements despite receiving higher funding and implementing new policy changes.

3. LITERATURE REVIEW

Theoretical Literature Review

The stakeholder theory developed by Freeman in 1984 requires organizations to establish relationships with various stakeholders which include customers and suppliers and government bodies and the community to achieve both legitimacy and sustainable performance. The theory views stakeholders not only as entities to be informed but as active participants whose interests should be integrated into decision-making processes. Public sector organizations need to establish effective stakeholder engagement practices because they require direct citizen connection to build both trust and accountability. The theory of stakeholder theory shows how public institutions function through its emphasis on participatory governance and government responsiveness which makes it suitable for use in county government operations. The theory of Customer Relationship Management (CRM) shows its value to public service delivery in Mandera County Government operations. Institutional responsiveness gets established through citizen feedback mechanisms and complaint handling systems and stakeholder consultation forums which operate as CRM practices. The tools create feedback loops which assist in aligning county services to meet citizen expectations and needs particularly in essential sectors like healthcare and water and infrastructure.

Stakeholder Theory has received criticism because it cannot define how to implement stakeholder interests and it shows weak ability to forecast outcomes. Donaldson and Preston (1995) argue that the theory focuses more on ethical justification than measurable performance outcomes, which can complicate its application in results-oriented public administration settings. The theory provides this study with normative and practical reasons to implement Customer Relationship Management (CRM) systems into Mandera County Government supply chain operations. The theory emphasizes that improved service delivery depends on how well the county engages, responds to, and incorporates feedback from its citizens. Service users utilize complaint resolution systems and customer forums and public consultations as channels to impact performance and institutional accountability.

The theory supports the research because it defines CRM as more than an administrative role which functions as a process to meet stakeholder needs and improve service delivery. The analysis shows how inclusive engagement strategies function as essential components for successful delivery of public services to citizens in Mandera County.

Empirical Literature Review

Smith, Johnson and Liu (2021) conducted the research about customer relationship management together with customer satisfaction research in UK local government service delivery. Researchers used a descriptive survey design which targeted 210 residents from three UK local councils. Researchers selected participants through stratified random sampling while they used structured questionnaires to collect data. SPSS software performed regression analysis. The findings showed that CRM practices especially feedback systems together with complaint resolution processes increased citizen satisfaction. The study presents a contextual gap because it focused on the UK's local councils while this work examined Mandera County.

Mensah and Adusei (2022) studied customer relationship management and service delivery in Ghanaian Municipal Assemblies. The research used a descriptive correlational design to select 152 municipal employees through stratified random sampling. The researchers collected data through structured questionnaires which they evaluated using regression analysis. The results demonstrated that CRM tools which included citizen engagement mechanisms produced positive effects on both service quality and service delivery timeliness. The study has a contextual gap as it was done in Ghana, while the current study will be done in Mandera County, Kenya.

Kimilu, Mwenja, Kiambati and Mbugua (2020) studied how customer care systems affect service delivery in various Kenyan county governments. The researchers selected 431 county staff members through two sampling methods which included stratified sampling and purposive sampling to conduct their study. The quantitative analysis demonstrated strong relationships through both correlation testing and chi-square testing. The research discovered that customer care systems had a substantial positive effect on service delivery.

Ombito, Nanyama, and Odero (2024) investigated how customer orientation affects service delivery in public health facilities located in Kakamega County, Kenya. The researchers used a descriptive causal design to study 173 participants who worked in public hospitals and selected them through stratified sampling. The researchers used questionnaires and interviews to collect raw data which they analyzed through multiple regression analysis. The results showed that higher customer orientation brought about better service delivery results.

Munyendo and Musyoka (2023) investigated how customer relationship management practices and citizen satisfaction levels impacted service delivery for Nairobi County Government services. The researchers conducted a descriptive survey which selected 250 participants through stratified sampling from different administrative departments. The researchers collected data through structured questionnaires and used multiple regression analysis to examine the results. The results showed that customer service strategies had a statistically significant positive impact on service efficiency.

4. RESEARCH METHODOLOGY

The research used a descriptive research design. The research examined a total of 3761 employees who work in the ten different ministries of the Mandera County Government. The study used stratified random sampling to choose 376 participants from different ministries as a representative sample. The researchers gathered data through structured questionnaires. The researchers used SPSS Version 26 to perform quantitative data analysis. The researchers used descriptive statistics to summarize the data. The study also used inferential statistics such as correlation analysis and multiple regression analysis. The results were presented in tables.

5. FINDINGS

The descriptive statistics results on Customer Relationship Management (CRM) are presented in Table 1.

Table 1: Customer Relationship Management (CRM)

| Statements | M | SD | CV (%) |
|---|--------------|--------------|--------------|
| Our department collects user feedback quarterly using structured tools. | 3.842 | 0.812 | 21.13 |
| Collected feedback is analyzed and used to improve services. | 3.765 | 0.845 | 22.45 |
| Complaints are resolved within the policy-defined time frame. | 3.658 | 0.876 | 23.95 |
| We have a system to track complaint resolution times. | 3.712 | 0.834 | 22.47 |
| Our department holds public forums each year to discuss service delivery and procurement. | 3.605 | 0.902 | 25.02 |
| Forum contributions are used in procurement and service planning. | 3.588 | 0.918 | 25.59 |
| Aggregate Score | 3.695 | 0.865 | 23.44 |

Source: Field Data (2026)

Table 1 shows the descriptive results on customer relationship management (CRM) practice in Mandera County Government and offers a valuable foundation on how the departments interact with the citizens to improve service delivery. The mean score of 3.695 and standard deviation of 0.865 show that there is a moderate degree of CRM practices implementation throughout the county. This implies that, by the average, respondents concurred that CRM systems like feedback systems, complaints, and public participation are reasonably in place in their departments. The standard deviation is relatively moderate, which suggests that the responses were not very different, suggesting a fair degree of uniformity in the experience of CRM practices across the departments.

The coefficient of variation (CV) also indicates that there is moderate variability in responses, with a total CV of 23.44% indicating that although CRM practices are usually there, the implementation is not completely consistent. The collection of user feedback (CV = 21.13%) showed the least variability, and the vast majority of the departments use structured feedback mechanisms. Conversely, the highest variability (CV = 25.59%) was observed in the use of the contributions of forums in the planning of procurement and services, which indicates the lack of consistency in the integration of the results of the participation of the population in the decision-making process. This difference can be due to disparities in departmental capacity, leadership commitment, or enforcement of procedures.

Considering the individual indicators, the most significant mean score (M = 3.842, SD = 0.812) was observed in the collection of user feedback with the help of structured tools, which means that the majority of departments are actively involved in the process of collecting feedback with the service users. Likewise, the implementation of ICT-based systems to monitor complaints (M = 3.712, SD = 0.834) and the evaluation of feedback to enhance services (M = 3.765, SD = 0.845) were rated not that low, which indicates that there are conscious attempts to use customer feedback to improve services. The findings are consistent with those of Smith, Johnson, and Liu (2021) who determined that structured feedback systems are an important factor in improving citizen satisfaction in the delivery of public services.

Nevertheless, the mean scores were relatively low in complaint resolution within policy-defined timeframes (M = 3.658, SD = 0.876), public forums of service delivery discussions (M = 3.605, SD = 0.902), and the use of forum contributions in planning (M = 3.588, SD = 0.918). These results indicate that although engagement mechanisms are in place, their ability to impact on the actual service delivery outcomes might be minimal. This aligns with the findings of Mensah and Adusei (2022), who discovered that despite the positive effect of CRM tools on service delivery, it is determined by the effectiveness of feedback in converting them into actionable decisions. The average scores in complaint resolution and public participation can also reflect institutional or operational issues like administrative process delays, inadequate feedback integration systems, or resource limitations. Kimilu et al. (2020) also made similar observations and indicated that customer care systems have a positive impact on service delivery, but their effectiveness relies on the regularity of their implementation and institutional support.

Theoretically, the findings can be explained with references to the principles of customer-oriented service delivery, which states that the ongoing interaction between service providers and users is crucial. Responsiveness, accountability and transparency are some of the drivers of improved service delivery outcomes through effective CRM practices. The findings are also consistent with empirical evidence by Ombito, Nanyama, and Odero (2024) and Munyendo and Musyoka (2023), who determined that a stronger customer orientation and engagement are significant contributors to service quality and

efficiency in the public sector organizations. In general, the results indicate that the CRM practices are moderately developed in the Mandera County Government, but it is necessary to enhance the incorporation of customer feedback into the decision-making process and increase the responsiveness of complaints. Improvement of these areas would probably result in more citizen-focused and responsive service delivery.

Inferential Statistics Results

Regression Analysis Results

Table 2: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .889 ^a | .790 | .698 | .01292 |

a. Predictors: (Constant), Service Delivery,

b. CRM

Source: Field Data (2026)

The model summary indicates a strong positive correlation ($R = 0.889$) between the independent variables (CRM) and the dependent variable (Service Delivery). The R Square value of 0.790 shows that 79.0% of the variation in service delivery is explained by CRM. The Adjusted R Square (0.698) suggests that after adjusting for the number of predictors, 69.8% of the variation is still explained by the model, indicating a good fit

Table 3: Analysis of Variance

| Model | | Sum of Square | df | Mean Squares | F. | Sg |
|-------|-------------|---------------|-----|--------------|---------|-------|
| | Regressions | 421.945 | 1 | 421.945 | 439.549 | 0.003 |
| | Residuals | 297.584 | 310 | 0.959 | | |
| | Totals | 719.529 | 311 | | | |

Source: Field Data (2026)

The ANOVA results indicate that the overall regression model is statistically significant. The F-statistic ($F = 421.945$) with a significance level of $p = 0.003$ ($p < 0.05$) shows that the model provides a good fit to the data.

Table 4: Regression Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|----------------------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| | (Constant) | .064 | .015 | | 4.193 | .000 |
| | Customer Relationship Management | .184 | .025 | .191 | 7.274 | .000 |

Source: Research Data (2025)

Customer Relationship Management had a positive and significant influence on service delivery, as indicated by a beta coefficient of 0.191 and a significance level of 0.000. This finding implies that strengthening CRM practices such as feedback systems, complaint handling, and citizen engagement leads to improved service delivery outcomes. Empirical studies support this result; for instance, Smith, Johnson, and Liu (2021) found that CRM practices enhanced citizen satisfaction in UK local councils, while Mensah and Adusei (2022) established that CRM tools improved service quality and timeliness in Ghanaian Municipal Assemblies. Similarly, Kimilu et al. (2020) and Munyendo and Musyoka (2023) confirmed that effective customer care systems significantly enhance service delivery in Kenyan county governments. These findings suggest that enhancing CRM practices in Mandera County can improve responsiveness, efficiency, and overall service quality.

6. CONCLUSIONS

CRM positively and significantly affected service delivery, which means that enhancing feedback, complaint management, and citizen interaction directly enhances service delivery. This implies that the better the county relates to and reacts to the citizens, the more responsive, efficient and citizen-focused services it provides. The role of investing in effective CRM practices in Mandera County can thus be critical in enhancing the quality of services and the level of satisfaction among the populace.

7. RECOMMENDATIONS

Mandera County Government should also intensify the customer relationship management practices by institutionalizing the structured feedback mechanisms, effective complaint management systems, and inclusive citizen engagement platforms. Practically, this could be through the implementation of digital feedback mechanisms, setting up of clear schedules to address complaints, and regular forums on public participation. On policy front, the county must come up with policies that will make feedback to be systematically analyzed and incorporated in planning and decision making processes, which will make the county more responsive and accountable in service delivery.

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