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Technological Factors Influencing Effective Integration of ICT Systems in Customs and Excise Revenue Collection in Zanzibar

Rajab Varry Msofe[1], Dr. Dionis Ndolage[2], Dr. Bukaza Chachage[3]

[1,2,3]The Open University of Tanzania, Tanzania

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Abstract

System interoperability. The integration of Information and Communication Technology (ICT) systems is increasingly important for improving efficiency and strengthening revenue administration in customs and excise operations. However, effective integration depends on technological capabilities, the utilization of digital platforms, and the interoperability of ICT systems. This study examined the association between technological factors and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar, Tanzania. Guided by the Technology–Organization–Environment (TOE) framework, the study adopted a positivist philosophy, a deductive approach, and a quantitative research design. A census approach was used to invite all 85 employees of the Zanzibar Customs and Excise Department, of whom 83 completed the questionnaire, yielding a response rate of 97.6%. Data were collected using a structured questionnaire and analysed using descriptive statistics and multiple regression analysis. The regression model was statistically significant ($F(4, 78) = 73.221$, $p < .001$) and explained 79.0% of the variance in effective ICT integration ($R^2 = .790$). Modern ICT-supported techniques ($\beta = .332$, $p = .004$), digital platform utilization ($\beta = .262$, $p = .009$), and ICT interoperability ($\beta = .275$, $p = .002$) were positively and significantly associated with effective ICT integration. Reliable ICT access, however, was not statistically significant ($\beta = .108$, $p = .204$). These findings suggest that effective ICT integration is associated with technological modernization, digital platform utilization, and interoperability rather than technology access alone. The study recommends prioritizing appropriate ICT solutions, system compatibility, and the effective utilization of digital platforms to strengthen customs and excise revenue collection in Zanzibar.

Keywords: ICT integration; Technological factors; Customs and excise; Revenue collection

1. Introduction

Information and Communication Technology (ICT) has become an important component of modern customs administration, enabling governments to automate revenue collection procedures, improve information management, facilitate international trade, and strengthen compliance with customs regulations (Achieng et al, 2022). Customs and excise departments perform essential public financial management functions through the administration of import and export duties, excise taxes, and other trade-related charges (Chepkoech et al, 2022, Li et al, 2024). Effective ICT integration can support these

functions by reducing dependence on manual processing, improving the accuracy and accessibility of transaction records, facilitating information exchange, and strengthening revenue monitoring (Gotora, 2023). However, the anticipated benefits of digitalisation depend on whether the technological systems available to revenue authorities are reliable, suitable, compatible, and adequately integrated into operational processes (Haji & Jilenga, 2022). Evidence from tax administration indicates that information technology can strengthen the identification of taxable entities, compliance monitoring, and tax payment processes, although infrastructure limitations and weak system integration which constrain its benefits (Udegbunam & Nwankwo 2023; Major et al, 2021).

Across Africa, revenue authorities have increasingly adopted electronic systems to modernise tax administration and customs operations. Nevertheless, the availability of digital platforms does not necessarily translate into effective ICT integration. Research on information management and ICT integration within the Kenya Revenue Authority highlights the importance of information management and stakeholder involvement, alongside implementation challenges related to infrastructure reliability and compliance (Mussa & Ali, 2022). Similarly, research on electronic customs platforms, including ASYCUDA World, indicates that digital systems can support data accuracy and improve customs clearance processes, although reliability and usability remain important considerations (Mvanga, 2023). These findings suggest that effective ICT integration requires more than the introduction of digital applications; it also depends on appropriate technological infrastructure, reliable system performance, and the capacity of systems to exchange and process information consistently.

In Tanzania, the Tanzania Revenue Authority (TRA) has introduced digital platforms, including the Tanzania Customs Integrated System (TANCIS), to support the electronic processing of customs transactions (Tanzania Revenue Authority, 2021). These initiatives reflect the broader transition from predominantly manual procedures towards technology-supported revenue administration. However, studies of ICT implementation and revenue administration in Tanzania have identified challenges relating to infrastructure, system reliability, and technical capacity (Mvanga, 2023). Research on local government revenue collection at Ifakara Town Council also indicates that digital technologies can improve transparency, efficiency, and accountability, although unreliable internet connectivity, inadequate ICT infrastructure, and technical difficulties can constrain implementation (Gotora, 2023). Although these studies provide useful insights into digital revenue administration, local government revenue collection and customs and excise administration have different operational requirements. Consequently, findings from local government settings cannot automatically establish the technological conditions associated with effective ICT integration in Zanzibar's Customs and Excise Department.

The issue is particularly relevant to Zanzibar, where the Customs and Excise Department requires dependable technological systems to support customs transaction processing and the administration of revenue-related information (Mussa & Ali 2022). Mwakapola & Joseph (2024) has identified challenges involving unreliable internet connectivity, inadequate ICT maintenance support, and limited technical expertise among customs officers. Such challenges disrupt access to digital systems, delay transaction processing, constrain information exchange, and reduce the operational value of ICT investments (Okunogbe & Santoro 2023). Furthermore, insufficient compatibility between systems which fragment information flows and sustain dependence on manual procedures (Mvanga, (2023). Nevertheless, the existence of these challenges does not establish the magnitude or statistical significance of the relationship between specific technological factors and effective ICT integration. Context-specific empirical evidence

is therefore necessary to determine which technological factors are significantly associated with integration outcomes.

This study is guided by the Technology Organization Environment (TOE) framework developed by (Tornatzky and Fleischer 1990). The framework explains organisational technology adoption and implementation through three interrelated contexts: technological, organisational, and environmental. The technological context concerns the characteristics of available technologies, including their suitability, compatibility, and capacity to meet operational requirements (Tornatzky and Fleischer 1990). The organisational context encompasses internal resources and characteristics, such as management support, employee skills, and organisational readiness. The environmental context includes external conditions such as regulatory requirements, government policies, and access to external technological support (Tornatzky and Fleischer 1990). The TOE framework is relevant to this study because it provides a basis for examining technological factors within the wider organisational and environmental conditions that shape ICT implementation. The empirical analysis focuses specifically on four technological factors: modern ICT-supported techniques, reliable ICT access, digital platform utilisation, and ICT system interoperability.

Despite the growing body of research on digital revenue administration, an empirical gap remains concerning the relationship between technological factors and effective ICT integration within Zanzibar's Customs and Excise Department. Previous studies have examined the potential of digital technologies in tax administration, information management and ICT integration in Kenya's revenue administration (Tejwok et al, 2024) and technological implementation challenges in Tanzanian local government revenue collection (Ussi, 2021). However, the extent to which modern ICT-supported techniques, reliable ICT access, digital platform utilisation, and ICT system interoperability are associated with effective ICT integration in Zanzibar's customs and excise revenue collection remains insufficiently established. Addressing this gap is important because evidence on the relative contribution of these factors can help the department prioritise technological investments and identify areas requiring improvement.

Accordingly, this study examines the relationship between four technological factors and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar. Specifically, it investigates the relationships between modern ICT-supported techniques, reliable ICT access, digital platform utilisation, and ICT system interoperability and effective ICT integration. Using empirical evidence from employees of the Zanzibar Customs and Excise Department, the study contributes context-specific findings to research on digital government and public-sector information systems. It also provides practical insights that assist decision-makers in prioritising technological modernisation, improving digital platform utilisation, and strengthening system interoperability in customs and excise revenue administration. The study addresses the following specific objectives:

i. To examine the relationship between modern ICT-supported techniques and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar.
ii. To assess the relationship between reliable ICT access and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar.
iii. To determine the relationship between digital platform utilisation and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar.
iv. To examine the relationship between ICT system interoperability and the effective integration of ICT systems in customs and excise revenue collection in Zanzibar.

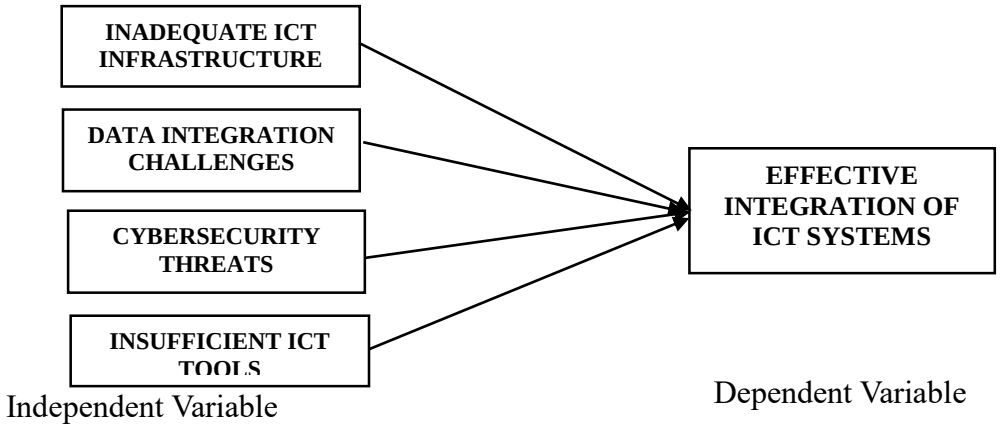

Figure 1: Conceptual Framework

2. Methodology

The study adopted a positivist research philosophy, a deductive approach, and a quantitative explanatory research design. Positivism emphasizes objective measurement and empirical evidence, while the deductive approach enables the testing of theoretically derived propositions against observed data (Kothari, 2019). Guided by the Technology-Organization-Environment (TOE) framework, the study examined the relationships between technological, organizational, and environmental factors and the integration of ICT systems in customs and excise revenue collection. A survey strategy was employed to collect standardised data from departmental employees, facilitating statistical analysis of the relationships among the study variables.

The study was conducted in the Customs and Excise Department in Zanzibar, Tanzania. The department was selected because of its responsibility for customs administration and revenue collection and its use of ICT systems to support operational processes. The target population comprised all 85 employees, including ICT officers, customs officials, revenue officers, and senior administrators. These employees were considered relevant respondents because of their involvement in ICT use, revenue administration, and departmental operations.

A census approach was adopted because the target population was relatively small and accessible. All 85 employees were therefore invited to participate in the study. This approach was consistent with the recommendation by Kothari, (2019) that researchers consider including the entire population when the target group is small. Questionnaires were distributed to all 85 employees, of which 83 were returned and included in the analysis, representing a response rate of 97.6%; the remaining two questionnaires accounted for 2.4% non-response.

The study used purposive selection of respondents based on their roles and involvement in ICT integration and customs and excise revenue collection. Given that all 85 employees were invited to participate, the sampling procedure is more accurately described as a census with purposive identification of relevant respondent categories rather than probability sampling. The high response rate provided substantial coverage of the target population, although the findings remain specific to the department studied.

Primary and secondary data were used in the study. Primary data were collected through structured, closed-ended questionnaires administered in both physical and electronic formats to facilitate participation. The questionnaire employed a five-point Likert scale to measure respondents' assessments of technological,

organizational, and environmental factors associated with ICT integration in customs and excise revenue collection. Secondary data were obtained from relevant scholarly publications, reports, and institutional documents to provide contextual and theoretical support for the investigation. The use of standardised questionnaire items enabled the collection of comparable quantitative responses for subsequent statistical analysis.

Organization of Study Variables

Table 1: Organization of Study Variables

	Variables	CODE	Indicators	Authors
Independent Variables	Technological Factors	TF	TF01-Availability of modern production techniques TF02- Access to ICT infrastructure TF03- Use of digital platforms TF04-System integration capability	Oliveira and Martins (2010)
Dependent Variable	Effective Integration of ICT	EIOICT	EIOICT 01-Increase in revenue EIOICT 02-Reduction in collection leakages EIOICT 03-Efficiency of tax processes EIOICT 04-Timeliness of payment EIOICT 05-Accuracy of tax records	Fjeldstad and Haggstad (2011)

Source: Field Data (2025)

3. Results and Discussion

Validity and Reliability

The suitability of the measurement data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. KMO values of 0.845 for technological factors and 0.716 for ICT integration exceeded the recommended minimum of 0.60. Bartlett's tests were statistically significant for both constructs ($p < 0.001$), indicating sufficient correlations among the items for factor analysis. Internal consistency was assessed using Cronbach's alpha, with values above 0.70 considered acceptable. Both constructs demonstrated excellent reliability, as presented in Table 2.

Table 2: Validity and Reliability Assessment

Construct	Items	KMO	Bartlett's χ^2	df	p-value	Cronbach's α
Technological factors	5	0.845	247.173	6	<0.001	0.967
ICT integration	5	0.716	637.908	10	<0.001	0.913

Source: Field data (2025).

The results indicate strong internal consistency for both constructs. However, KMO and Bartlett's tests establish the suitability of the data for factor analysis rather than independently confirming construct validity.

Data Cleaning and Response Rate

The authors distributed 85 questionnaires to employees of the Zanzibar Customs and Excise Department, 83 were returned, yielding a response rate of 97.6%, while two (2.4%) were not returned. The returned questionnaires were checked for completeness, consistency, and data-entry errors before coding and statistical analysis. The resulting dataset comprised 83 responses.

Demographic Characteristics of Respondents

The respondents' demographic characteristics are summarised in Table 3. Females constituted 62.7% (n = 52), while males accounted for 37.3% (n = 31). The largest age group was 26-35 years (34.9%), followed by 36-45 years (25.3%). Regarding education, 54.2% held bachelor's degrees and 30.1% held master's degrees. In terms of work experience, 38.6% had worked for 4-6 years, while 28.9% had 7-10 years of experience. Thus, the respondents represented varied demographic and professional backgrounds, providing contextual information for interpreting the study findings.

Table 3: Demographic Characteristics of Respondents

Variable	Frequency	Percent
Gender		
Male	31	37.3
Female	52	62.7
Total	83	100.0
Age Group		
18-25	9	10.8
26-35	29	34.9
36-45	21	25.3
46-55	14	16.9
Above 55	10	12.0
Total	83	100.0
Education Level		
Certificate	1	1.2
Diploma	8	9.6
Bachelor Degree	45	54.2
Master's Degree	25	30.1
Phd	4	4.8
Total	83	100.0
Experience		
Less than 1 Year	5	6.0
1-3 years	19	22.9
4-6 years	32	38.6
7-10 years	24	28.9
Above 10 years	3	3.6
Total	83	100.0

Source: Field Data (2025)

Descriptive Statistics of Technological Factors

Descriptive statistics were used to assess respondents' perceptions of technological factors associated with ICT system integration in customs and excise revenue collection in Zanzibar. As shown in Table 4, the mean scores ranged from 3.22 to 3.54, indicating moderate agreement across the four items.

Table 4: Descriptive Statistics of Technological Factors

Measurement item	Mean	SD
Use of modern ICT-supported techniques	3.54	1.346
Reliable access to ICT	3.31	1.422
Use of digital platforms for marketing and customer interaction	3.22	1.169
Integration of ICT systems with other operational systems	3.46	1.525

Source: Field Data (2025).

The use of modern ICT-supported techniques recorded the highest mean (M = 3.54, SD = 1.346), followed by the integration of ICT systems with other operational systems (M = 3.46, SD = 1.525). Reliable access to ICT recorded a mean of 3.31 (SD = 1.422), while digital platform use had the lowest mean (M = 3.22, SD = 1.169). These findings suggest that technological capabilities were present but were not uniformly rated highly by respondents. The relatively large standard deviations indicate variation in perceptions, particularly regarding system integration and reliable ICT access. Overall, the results point to potential areas for improvement in technological accessibility and system interoperability. However, these descriptive statistics alone do not establish whether technological factors significantly predict effective ICT integration.

Regression Assumption Diagnostics

Multiple linear regression assumptions were assessed before interpreting the regression results. Linearity, residual normality, homoscedasticity, independence of errors, and multicollinearity were considered using the relevant diagnostic outputs.

Normality was assessed using histograms, Normal P-P plots, and standardized residual statistics. The residuals had a mean close to zero and standardized residuals fell within the acceptable threshold of ±3.0. There were no extreme outliers detected. These findings indicate that the residuals are approximately normally distributed, confirming that the normality assumption was met.

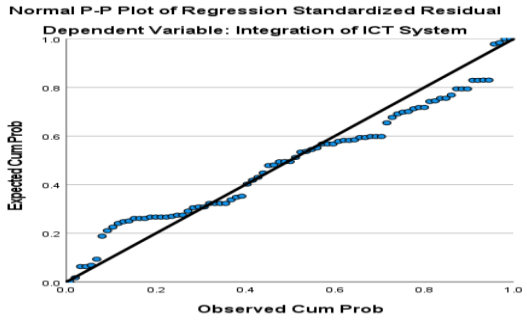

Figure 2: Normal P-Plot

Source: Field Data (2025)

Homoscedasticity was examined using scatterplots of standardized residuals against predicted values which showed no funnel-shaped or systematic pattern. The residual spread was relatively even, indicating constant variance. Thus, the homoscedasticity assumption was satisfied.

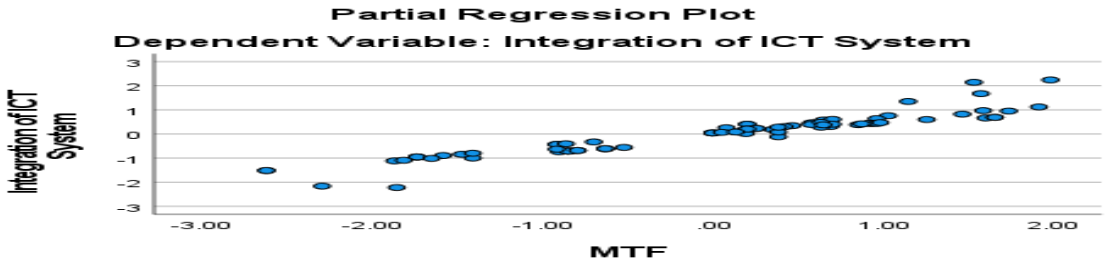

Figure 3: Scatterplots

Source: Field Data (2025)

The Durbin-Watson statistic was 1.779, suggesting no obvious evidence of serious residual autocorrelation. Multicollinearity was assessed using tolerance and the variance inflation factor (VIF). For technological factors, tolerance was 0.843 and VIF was 1.187, indicating no evidence of problematic multicollinearity for this predictor. Taken together, the reported diagnostics suggest that the regression analysis was reasonably appropriate, subject to verification of the underlying diagnostic plots and statistics.

Table 5: Regression Diagnostic Statistics

Diagnostic	Result	Interpretation
Durbin-Watson statistic	1.779	No obvious indication of serious residual autocorrelation
Tolerance: technological factors	0.843	No apparent multicollinearity concern
VIF: technological factors	1.187	No apparent multicollinearity concern

Source: Field data (2025)

Regression Analysis

Multiple regression analysis was conducted to examine the relationship between technological factors and ICT system integration in customs and excise revenue collection in Zanzibar.

Table 6: Model Summary

R	R^2	Adjusted R^2	Std. Error	Durbin-Watson
0.889	0.790	0.779	0.545	1.904

Source: Field data (2025).

The model showed a strong association between the technological predictors and ICT system integration ($R = 0.889$). The predictors jointly explained 79.0% of the variance in ICT integration ($R^2 = 0.790$; adjusted $R^2 = 0.779$). The Durbin-Watson statistic of 1.904 indicated no apparent serious residual autocorrelation.

Table 7: ANOVA Results

Source	SS	df	MS	F	**p**-value
Regression	87.013	4	21.753	73.221	<0.001
Residual	23.173	78	0.297		
Total	110.186	82			

Source: Field data (2025).

The regression model was statistically significant, $F(4, 78) = 73.221$, $p < 0.001$, indicating that the four technological predictors jointly explained a significant proportion of variation in ICT system integration.

Table 8: Regression Coefficients for Technological Factors

Predictor	B	SE	β	**t**	**p**-value
Constant	0.493	0.181		2.725	0.008
Modern ICT-supported techniques	0.286	0.096	0.332	2.964	0.004
Reliable ICT access	0.088	0.069	0.108	1.280	0.204
Digital platform utilisation	0.260	0.097	0.262	2.668	0.009
ICT system interoperability	0.209	0.064	0.275	3.274	0.002

Source: Field data (2025).

Modern ICT-supported techniques ($\beta = 0.332$, $p = 0.004$), ICT system interoperability ($\beta = 0.275$, $p = 0.002$), and digital platform utilisation ($\beta = 0.262$, $p = 0.009$) were positively and significantly associated with ICT integration. Reliable ICT access was positive but statistically insignificant ($\beta = 0.108$, $p = 0.204$). These results suggest that technological modernisation, effective digital utilisation, and interoperability are important correlates of ICT integration, whereas access alone was not a statistically significant predictor in this model.

Discussion of Findings in Relation to Previous Studies

The findings demonstrate that technological factors play an important role in ICT system integration in customs and excise revenue collection in Zanzibar. The overall regression model explained 79.0% of the variation in ICT integration, indicating substantial explanatory power. The significant contributions of modern ICT-supported techniques, digital platform utilisation, and system interoperability further emphasise the importance of technological modernisation and effective integration in public revenue administration.

These findings are consistent with Okunogbe and Santoro (2023), who emphasised the importance of digital technologies and institutional integration in improving tax administration and revenue collection. Their work highlights how technology can support more efficient revenue administration when supported by appropriate institutional arrangements and effective implementation. Similarly, the present study demonstrates that modern ICT-supported techniques and interoperability are important technological dimensions associated with ICT integration in Zanzibar's Customs and Excise Department.

The findings also relate to Mvanga (2023), who identified infrastructure and connectivity challenges affecting revenue collection systems in Tanzanian local government authorities. Although reliable ICT access was not statistically significant in the present regression model, this does not imply that infrastructure and connectivity are unimportant. Rather, it suggests that access alone is insufficient to explain ICT integration when other technological dimensions are considered simultaneously. The effectiveness of ICT systems depend more strongly on how available infrastructure is utilised and how different platforms are interconnected.

From a practical perspective, the findings suggest that the Customs and Excise Department should adopt a comprehensive approach to technological development. Such an approach should prioritise modern ICT-supported techniques, improve interoperability between relevant systems, and promote the effective

utilisation of digital platforms. Investment in reliable ICT infrastructure should also continue to provide the necessary foundation for these improvements.

Despite the strong explanatory power of the regression model, the results should be interpreted with some caution. The study examined statistical relationships using observational data; therefore, the findings do not establish direct causal relationships. Furthermore, the model explained 79.0% of the variation in ICT integration, leaving 21.0% potentially attributable to other factors not included in the analysis, such as organisational capacity, staff competencies, institutional support, and management practices. Future research could examine these factors to develop a more comprehensive understanding of ICT system integration in public revenue collection.

4. Conclusion

This study examined the relationship between technological factors and ICT system integration in customs and excise revenue collection in Zanzibar. The multiple regression results revealed a statistically significant relationship between the technological factors and ICT system integration, with the overall model explaining 79.0% of the variation in ICT system integration ($R^2 = 0.790$, $p < 0.001$). This demonstrates the importance of technological factors in strengthening ICT integration within customs and excise revenue administration.

Specifically, modern ICT-supported techniques, digital platform utilisation, and ICT system interoperability had significant positive relationships with ICT system integration. Among these factors, modern ICT-supported techniques demonstrated the strongest standardised contribution ($\beta = 0.332$), followed by ICT system interoperability ($\beta = 0.275$) and digital platform utilisation ($\beta = 0.262$). However, reliable ICT access, although positively associated with integration, was not statistically significant ($\beta = 0.108$, $p = 0.204$). These findings suggest that the availability of ICT infrastructure alone which do not guarantee effective system integration unless supported by modern technologies, appropriate digital platforms, and interoperability among institutional systems.

The study contributes to understanding the technological conditions that support effective ICT integration in public revenue administration in Zanzibar. It highlights the need for the Customs and Excise Department to move beyond providing basic ICT access towards strengthening technological modernisation, improving digital platform utilisation, and ensuring seamless communication between different systems.

Nevertheless, the study was based on observational data, meaning that the findings establish statistical relationships rather than definitive causal effects. Future studies could incorporate larger samples and longitudinal approaches to further investigate these relationships. Overall, strengthening technological capabilities and system interoperability is essential for improving ICT integration and supporting more efficient customs and excise revenue collection in Zanzibar.

References

1. Achieng, O. C., Tobias, M., & Mose, T. (2022). ICTs and revenue collection in Nairobi City County Government, Kenya. International Research Journal of Business and Strategic Management, 4(1). https://www.irjp.org/index.php/irjbsm/article/view/76
2. Chepkoech, N., Gichana, J. O., & Agong, D. (2022). Effect of e-payment systems on sustainable revenue collection in Nairobi City County Government. International Academic Journal of Economics and Finance, 3(7), 238–253. https://www.iajournals.org/index.php/8-articles/1048-iajef-v3-i7-238-253

3. Fjeldstad, O. H., & Heggstad, K. K. (2012). Tax administrations working together (CMI Report R 2012:3). Chr. Michelsen Institute. https://www.cmi.no/publications/4563-tax-administrations-working-together
4. Gotora, C. (2023). The influence of information communication and technology (ICT) utilization on customers' satisfaction of the Tanzania Revenue Authority [Doctoral dissertation, Institute of Accountancy Arusha].
5. Haji, A. K., & Jilenga, M. T. (2022). Effectiveness of e-payment system on revenue collection in Zanzibar. Institute Accounta Arusha, 2(1), 15–27.
6. Kothari, C. R., & Garg, G. (2019). Research methodology: Methods and techniques (4th ed.). New Age International Publishers.
7. Li, S., Xu, H., Lu, T., Cao, G., & Zhang, X. (2024). Emerging technologies in finance: Revolutionizing investment strategies and tax management in the digital era. Management Journal for Advanced Research, 4(4), 35–49. https://doi.org/10.5281/zenodo.13283670
8. Major, L., Francis, G. A., & Tsapali, M. (2021). The effectiveness of technology-supported personalised learning in low- and middle-income countries: A meta-analysis. British Journal of Educational Technology, 52(5), 1935–1964. https://doi.org/10.1111/bjet.13116
9. Mussa, A., & Ali, H. (2022). Enhancing revenue collection through ICT integration: A case of Zanzibar Customs and Excise Department. Journal of Public Administration and Policy Research, 14(2), 34–45.
10. Mvanga, J. (2023). The effectiveness of digital technology on revenue collection in local government authorities in Tanzania [Doctoral dissertation, Institute of Accountancy Arusha].
11. Mwakapola, I. F., & Joseph, J. (2024). Assessment of the contribution of ICT development towards revenue collection performance: Case of Babati Water Supply and Sanitation Authority (BAWASA). The African Conference of Applied Informatics, 4(1). https://doi.org/10.59645/acai.v4i1.445
12. Okunogbe, O., & Santoro, F. (2023). The promise and limitations of information technology for tax mobilization. The World Bank Research Observer, 38(2), 295–324. https://doi.org/10.1093/wbro/lkac008
13. Oliveira, T., & Martins, M. F. (2011). Literature review of information technology adoption models at firm level. The Electronic Journal of Information Systems Evaluation, 14(1), 110–121. https://academic-publishing.org/index.php/ejise/article/view/389/352
14. Tanzania Revenue Authority. (2021). TRA annual report 2020/21. https://www.tra.go.tz
15. Tejwok, S., Munene, D., & Waweru, P. (2024). Information management systems strategies to support the integration of Kenya's e-government services: A case study of the Kenya Revenue Authority. Global Scientific Journal, 12(8).
16. Tornatzky, L. G., & Fleischer, M. (1990). The processes of technological innovation. Lexington Books.
17. Udegbunam, I. P., & Nwankwo, B. C. (2024). Effects of technological environment on service delivery in Anambra Internal Revenue Services (2014–2022). International Journal of Innovative Social Sciences & Humanities Research, 12(3), 20–29.
18. Ussi, A. K. (2021). An examination of the factors affecting the effectiveness of revenue collection in Zanzibar: A case of Zanzibar Revenue Board (ZBR) [Master's dissertation, The Open University of Tanzania]. The Open University of Tanzania Institutional Repository. https://repository.out.ac.tz/3223/