



Contribution of Government Electronic Payment Gateway (GEPG) towards Effectiveness of Revenue Collection: A Case of TRA Iringa Regional Office

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Abstract

Government electronic payment gateway (GePG) could not only help to overcome the challenges of corruption, tax evasion, tax exemption but also may facilitate the effectiveness and efficiency in revenue collection performance. However, there is little knowledge about the contribution of government electronic payment gateway system on revenue collection. This paper focuses on the assessment of contribution of government electronic payment gateway in effectiveness of revenue collection performance. The study was carried out in Iringa TRA Regional office. Mixed method include interview, questionnaire and documentary review were used to collect data from Iringa TRA Regional office. The quantitative data were analyzed using Statistical Package for Social Sciences (SPSS), while qualitative information was analyzed using content analysis. The study findings indicated that government electronic payment gateway system plays a significant role on effectiveness revenue collection performance. This is supported by the fact that the system facilitates transactions by eliminating the use of cash in government payments, enhance budget compliance, ensure compliance with rules and regulations, facilitate transferring of government income, reduce cost of compliance and reduce cases of taxes invasion or offense. The study concludes that efforts on taxes invasion, pro-poor taxation, cost of compliance and budget compliance is suggested for effectiveness revenue collection performance as it is lower than 80% decision criteria. This should go along with strengthening the use of electronic payment gateway system for effective and efficiency revenue collection performance.

Key words: *Government electronic Payment Gateway System, Effectiveness on revenue collection performance, Iringa TRA Regional office.*

Introduction

Tanzania government has been implemented the Government Electronic Payment Gateway (GePG) system to improve government revenue collection in the country. As of July 2020, the system was implemented in 660 public institutions and is integrated into 28 commercial banks and 6 mobile money operators. While the system has been widely accepted, evaluation on its adequate and performance is necessary as many similar initiatives implemented in Africa have failed to deliver the desired outcomes (Sanga, 2015). Inception of the technology enabled the government to overcome the challenges in collecting revenues, including high costs associated with service offered by revenue collection agents, complicated procedures for paying for government services, limited payment options, corruption and lack of real-time visibility of the revenue that impacted into enhance government revenue collection performance. Recently the system was implemented in 660 public institutions and is integrated into 28 commercial banks and 6 mobile money operators. While the system has been widely accepted, evaluation on its adequate and performance is necessary as many similar initiatives implemented in Africa have failed to deliver the desired outcomes (Sanga, 2015). In view of this argument Studies by Kaongo(2015) and Nuluva (2015) carried out in Tanzania on the performance of revenue collection in Local Governments Authorities revealed that administrative incapacity, inexperienced staff, corruption; poor plans and policies hamper effectiveness and efficiency on revenue collection performance.

Mtebe and Sausi (2021) carried out an investigation on Revolutionization of revenue collection with government e-payment gateway system in Tanzania. The study revealed that the use of the e-government system increased revenue collection by 44.28% while reducing the cost associated with revenue collection by 27.10% between 2015/2016 and 2019/2020 in the surveyed institutions. Kishura (2020) studied Impact of Government Electronic payment Gateway on Revenue collection in Tanzania. Result indicates that GePG play a significant role to the increase of revenue collection from a mean of 2.63888 to 3.3878. This is to say that past studies have not sufficiently addressed the contribution of government electronic payment gateway system on effectiveness of revenue collection performance as it focused on impact of the system. It is in this light that this study sought to addresses the contribution of government electronic payment system on revenue collection in Iringa TRA Regional office and how it has improved the performance of revenue collection as it filled the existing knowledge gap, to recommend on ways to fully adopt technology in revenue collection. The study was guided by the following objective: to examine the contribution of government electronic payment gateway on revenue collection performance.

Contribution of Government electronic Payment Gateway on revenue collection

Innovation of government electronic payment gateway marked a dramatic change in revenue collection all over the world as it replaces manual systems including manual receipts, and manual recording resulted into problems high collection costs, fraud, underpayment, and other revenue leakages (Fjeldstad and Heggstad, 2012). Several studies justified changes in revenue collection after adoption of e-payment. Gidisu (2012) provided evidence on this

positive effect in Ghana due to the introduction of automation system reducing the cost of tax administration and increasing the effectiveness of revenue collection.

Oduor, et al (2016) did a study on Automating revenue collections in Kenya: A case of Kiambu County. The study focused on ascertaining the impact of adopting automated revenue collection system and its effects on governance and service delivery in Kiambu County. The results of the study showed an increase in revenue realization and granular visibility of county revenues and trends. The study further reveal an increase of 60% improvement in revenue collection within the first of the implementation of County Pro system as 74% of respondents were satisfied with automated revenue collection.

Sanga (2015) carried out a study on Electronic Revenue Collection in Tanzania. The study examined effects of electronic revenue collection systems. Quantitative approach coupled with questionnaire used in data collection and analysis. The findings show the system is effective and efficient and has improved revenue collections to a great extent. It is expected that the system will be very effective when full deployed as it will reduce cash lock up associated with the paper system and the trend towards control of revenue show significant improvement.

Kessy (2019) studied Electronic Payment and Revenue Collection in Local Government Authorities in Tanzania: Evidence from Kinondoni Municipality. Simple random sampling procedures coupled with semi-structured questionnaire was distributed to revenue collectors and administrators. Data were analyzed using descriptive statistics and linear regression. The findings revealed that most of the respondents admitted that e-payment influences revenue collection by enabling the Municipal increase tax compliance. It was further revealed that e-payment provide additional competitive edge in monitoring revenue sources, and improving the quality of financial reporting. Furthermore, the findings revealed a positive linear relationship between e-payment and revenue collection in terms of tax compliance, monitoring of revenue sources, and financial reporting. Though the studies reviewed provided valuable information to the present study on government electronic payment gateway system and revenue collection, very few have addressed the effectiveness on revenue collection performance in Tanzania with reference to Iringa TRA Regional office. This is the facts that call for the need of this study.

Methods

The design of this research was case study research. The population for this study was composed of the Iringa TRA Regional office staff. The study was conducted to a sample size of 40 respondents. The study used questionnaire and interview to collect data from TRA staff, TRA regional manager and ICT technician. The study conducted a pre-testing of the research instrument before administering it, to test the reliability and validity of the research tool. Data from questionnaire was coded and logged in the computer using Statistical Package for Social Science (SPSS V 22). Data collected from interview was analyzed qualitatively. The collected data was analyzed using both quantitative and qualitative data analysis methods. In

this study decision criteria used to ascertain effectiveness on revenue collection performance is 80%.

Discussion

The study sought to examine the contribution of government electronic payment gateway system on effectiveness on revenue collection performance at Iringa TRA Regional office. The respondents were requested to indicate their level of agreement or disagreement on the contribution of electronic payment system in each statement provided on a five Likert scale. The results are shown in table 4.1 to 4.10

Table 4.1 Facilitates transaction by eliminating the use of cash in government payments

Variable	Frequency	Percent
Strongly agree	14	35
Agree	26	65
Total	40	100

Source: Field data, 2022

The findings as shown in table 4.1 shows that 65% of respondents interviewed agreed on the statement that government electronic payment gateway system facilitates transaction by eliminating the use of cash in government payments and 35% of respondents were strongly agree with the statement. Therefore, from the above analysis it can be concluded that 100% agree that Government electronic payment gateway system is more efficiency and effective in revenue collection as it is greater than 80% decision criteria. Findings from documentary review informed that the system is effective in revenue collection performance as collection increase yearly. For example in 2018/2019 regional targeted to collect 58,353,620,000.00/= but the actual amount collected was 61,379,563,494.95/= equivalent to 105.19%. It signifies that electronic payment system facilitated the elimination of cash in government payment. These findings is in line to Oduor, et al (2016) explained that electronic payment contributes to an increase of 60% improvement in revenue collection within the first of the implementation of County Pro system as 74% of respondents were satisfied with automated revenue collection.

Table 4.2 Enhance budget compliance

Variable	Frequency	Percent
Strongly agree	17	42.5
Agree	12	30

Neutral	5	12.5
Disagree	6	15
Total	40	100

Source: Field data, 2022

Table 4.2 shows that 42.5% strongly agree that Government electronic payment gateway system enhance budget compliance, 30% agree, while 15% disagree on the statement and 12.5% neither agree nor disagree. Cumulatively 72.5% opined that budget compliance contribute to the effectiveness of revenue collection. However given 80% decision criteria effort should be made on budget compliance with the use of government electronic payment gateway system for effective revenue collection. The finding is contrary to what Okiro (2015) who revealed a significant relationship between level of compliance to budget estimates in before adoption electronic payment (p-value= .000) and level of compliance to budget estimates after adoption of e-payment (p-value = .041) and revenue collection performance in Nairobi City County government since the p value for each predictor variable was less than 0.05.

Table 4.3 Electronic payment ensure compliance with government rules and regulations

Variable	Frequency	Percent
Strongly agree	15	37.5
Agree	18	45
Neutral	7	17.5
Total	40	100

Source: Field data, 2022

Table 4.3 shows that 45% of respondents agree that electronic payment ensure compliance with government rules and regulations, 37.5% strongly agree, 17.5% neither agree nor disagree. Therefore, from the above analysis we can infer that 82.5% agree that electronic payment ensure compliance with government rules and regulations and is effective in revenue collection as it is greater than 80% decision criteria. It signifies that the system operations are based in the statutory requirements under the Public Finance Act 2001 as amended by the Finance Act 2017, which specifically provides that all public money shall be collected electronically through the GePG system.

Table 4.4 Multiple channels for their users to choose suitable or comfortable payment channel

Variable	Frequency	Percent
Strongly agree	10	25
Agree	20	50
Neutral	7	17.5
Disagree	1	2.5
Strongly disagree	2	5
Total	40	100

Source: Field data, 2022

Table 4.4 indicates that 50% of respondents agree that multiple channels for their user to choose suitable payment channel contribute on revenue collection, 25% strongly agree, 17.5% neither agree nor disagree, while 5% strongly disagree and 2.5% disagree with the statement. Thus, from the above analysis we can deduce that 75% agree that multiple channels for user are suitable and effective in revenue collection. However, it is lower than 80% decision criteria: suggesting that more effort needed.

Table 4.5 Facilitates transferring of government income

Variable	Frequency	Percent
Strongly agree	10	25
Agree	25	62.5
Neutral	5	12.5
Total	40	100

Source: Field data, 2022

Table 4.5 shows that 62.5% of respondents agree that revenue collection facilitated by transferring of government income with government electronic payment gateway system, 25% strongly agree with the statement, 12.5% neither agree nor disagree. It is clearly noticeable that 87.5% agree that government electronic payment gateway system is effective in revenue collection as it simplifies transferring of government income. Hence it is effective in revenue collection as it greater than 80% decision criteria. Interview findings informed the same that with the system there is effectiveness in revenue collection as government income channeled to commercial bank for reconciliation purpose.

Table 4.6 Reduce cost of compliance

Variable	Frequency	Percent
Strongly agree	12	30
Agree	19	47.5
Neutral	6	15
Disagree	3	7.5
Total	40	100

Source: Field data, 2022

Table 4.6 shows that 47.5% of respondents agree that electronic payment system reduce cost of compliance, 30% strongly agree, 15% neither agree nor disagree, while 7.5% disagree with the statement. From these findings we can deduce 77.5% of respondents agree that government electronic payment gateway system contributes to the effectiveness of revenue collection performance. The findings is in line to Gidisu (2012) explained that introduction of automation system reducing the cost of tax compliances, administration, and increasing the effectiveness of revenue collection. Allahverdi (2017) opined that transition to the electronic tax system positively affected the tax revenues and reduced the cost per tax.

Table 4.7 Facilitate pro-poor taxation

Variable	Frequency	Percent
Strongly agree	14	35
Agree	17	42.5
Neutral	3	7.5
Disagree	5	12.5
Strongly disagree	1	2.5
Total	40	100

Source: Field data, 2022

According to the findings in table 4.7, 42.5% of respondent agree that GePG facilitate pro-poor taxation, 35% strongly agree, 12.5% disagree, 7.5% neither agree nor disagree, and 2.5% strongly disagree with the statement. Therefore, from the above analysis we can conclude that 77.5% agree that government electronic payment gateway system is effective in revenue collection as it facilitate pro-poor taxation collection. Though, still lower than 80% decision criteria: suggesting that more effort need in pro-poor taxation collection. Perhaps

with the inception of technology revenue collection performance improved as it replace paper revenue collection system which may last for a while.

Table 4.8 Payment information kept on the database

Variable	Frequency	Percent
Strongly agree	15	37.5
Agree	25	62.5
Total	40	100

Source: Field data, 2022

Table 4.8 shows that 62.5% of respondents agree that payment information with government electronic system is kept on the database and 37.5% strongly agree. From these findings we can inferred 100% agree that the process of keeping payment information on data base is effective and efficiency in revenue collection. The findings signifies that the system enhance security and monitoring of revenue collected from different source. Interview findings informed that the system offers reliable and accurate information pertaining to revenue collection performance since all payment information are secured enough through a centralized system, and this minimize problem in data storage.

Table 4.9 Reduces cases of taxes invasion/offense

Variable	Frequency	Percent
Strongly agree	19	47.5
Agree	10	25
Neutral	6	15
Disagree	3	7.5
Strongly disagree	2	5
Total	40	100

Source: Field data, 2022

Table 4.9 indicates that 47.5% of respondents strongly agree that with government electronic payment system cases of taxes invasion/offense reduced, 25% agree, 15% neither agree nor disagree, while 7.5% disagree and 5% strongly disagree with the statement. Thus, from the above analysis we can conclude 72.5% agree that the system is effective in revenue collection. However, still is lower than 80% decision criteria: suggesting that more effort need on taxes invasion or offense so as to improve performance of revenue collection.

Correlation analysis was used to establish relationship between government electronic payment gateway system and revenue collection as shown in table 4.10;

Table 4.10 Correlation analysis between Government electronic payment gateway system and revenue collection

		Government electronic payment gateway	Revenue collection
Government electronic payment gateway	Pearson Correlation	1	.102
	Sig. (2-tailed)		.533
	N	40	40
Revenue collection	Pearson Correlation	.102	1
	Sig. (2-tailed)	.533	
	N	40	40

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

Correlation analysis revealed a positive correlation between government electronic payment gateway system and revenue collection with $r = .533$ statistical significant. It signifies that government electronic payment gateway system plays a significant role on revenue collection effectiveness and performance. These findings supported by Sanga (2015) elaborated that electronic payment system is effective and efficient as it contributes positively to the improvement of revenue collections to a great extent as the trend towards control of revenue show significant improvement.

Conclusions and recommendations

Conclusion

The study concludes that partly government electronic payment gateway system enhances effectiveness in revenue collection performance despite the fact some initiatives need to be taken into consideration to smoothen the whole process of revenue collection. This is supported by the fact that regional revenue collection varies significantly as it shows an increase and decreases yearly. The situation could be associated with increase or decrease of sources of revenue collection.

Recommendations

The study further found out that government electronic payment gateway is effective on revenue collection performance as it offers a great deal to elimination use of cash in government payment, compliance with government rules and regulations as well as transferring of government income. However, electronic payment process may not work well if prop-poor taxation and tax invasion is substandard. This study therefore recommends that revenue office should undertake the initiative to all procedures related to revenue collection regularly.

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