



**CASHLESS COLLECTION METHODS AND REVENUE GROWTH OF UASIN-GISHU COUNTY GOVERNMENT,
KENYA**

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ABSTRACT

The purpose of this study was to examine the effect of cashless collection methods on revenue growth of Uasin-Gishu County, Kenya. A correlation research design was adopted. The study was anchored on the revenue diversification theory, theory of optimal taxation and the technology acceptance model. The target population comprised of 50 Uasin Gishu County government staff. Census method was used since the sample size is considered small and manageable. The study employed primary data techniques to collect data through the use of self-administered questionnaires. Analysis of data was done using descriptive and inferential statistics extracted from the SPSS software. The findings revealed that M-Pesa collections was shown to account for as much as 21.1% of the variance in revenue growth. Cheque collection accounts for up to 47.7 percent of the variation in revenue growth. According to a simple linear regression study, real time gross settlement collections accounts for up to 27.7% of the variance in the revenue growth. Electronic fund transfer accounted for up to 18.8% of the variation in the revenue growth Authority. The study concluded that there is positive and significant effect of cashless collection methods on revenue growth of Uasin-Gishu County, Kenya. The study recommended that County Government need to integrate M-Pesa collections into more aspects of revenue collection processes. This can include expanding the types of payments accepted via M-Pesa and ensuring seamless integration with existing e-banking systems. The study recommended that County Government should strengthen partnerships with financial institutions to leverage their expertise in enhancing RTGS capabilities and supporting electronic payment initiatives. This collaboration can help in negotiating favorable terms, improving transaction reliability, and expanding service offerings.

Key Words: M-Pesa Collection, Cheque Collection, Gross Settlement, Electronic Fund Transfer

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INTRODUCTION

The introduction of cashless economy in the society revealed many advantages which led researchers; international, regional and local, to study its effect and its contribution to different areas of the society such as quick service delivery, efficient tax collection, customer satisfaction, its risks and advantages and so many other studies on the same topic (Remige, 2020).

Revenue collection, frequently refers to a government agency billing the public or a member of the public for fines, taxes or any other fees. However, revenue collection is also the general collection of revenue for debts owed or owed revenue by persons or businesses. (ProfitWell, 2019). Revenue collection has remained the only source for the survival of government; this is because, all projects and programs initiated are based on the amount of revenue collected. Therefore, it is not an overstatement to say that no government can survive without revenue. This is because; every government depends on revenue for the returning day to day activities and for the execution of public policies and programs that impact the well-being of the citizens (Ugochukwu, Ani & Agullah, 2023).

The Eastern African countries, namely Kenya, Uganda, and Tanzania, adopted the tax regime that was left behind by colonial powers. The main sources of revenue in the region have been PAYE, VAT, corporate tax, customs, and excise duty (Mukhwaya, Ngala & Mungai, 2023).

Over the past thirty years, there has been a noticeable trend toward fiscal decentralization in developing nations. There is a substantial body of literature devoted to comprehending its effects on economic development. Faster economic growth is frequently associated with fiscal arrangements that enable local governments to collect a higher share of local revenue (Han & Kung, 2015). The phenomenon of decentralization is complex. For instance, we can talk about decentralization in the areas of politics, administration, finance, and economy. These different forms of decentralization

coexist. Another issue with studying decentralization is that, in reality, there isn't "full" decentralization; rather, there are various local autonomy limitations that have an impact on various decisions made by local governments. Local revenues are correlated with the most well-established fiscal autonomy indicators in the literature (Kopańska, 2022).

Revenue collection plays an important role in fiscal decentralization in every country. It enables the state to attain assets that are free of indebtedness. A sound revenue system is measured by the aspects of equity, transparency and accountability, efficiency in economy, administrative feasibility, and ability in the mobilization of resources. Therefore, to achieve improved revenue performance, revenue collection in authorities should be accompanied with best practices of equity, economic efficiency, ability to pay, convenience, and certainty (Kessy, 2020).

Payment systems all over the world have been undergoing a radical transformation in recent years. The surveys conducted during the last few years by the central banks of various countries revealed a decline in cash usage and preferences for digital payments by consumers. The leading factors for this could be attributed to policy interventions supported by technological advancements and rapid innovations. The usage of digital modes of payments such as cards and other non-physical modes of transfer witnessed tremendous growth (Joseph & Ramalingam, 2023). Digitization has improved and enhanced revenue collection in Kenya (Mukhwaya, Ngala & Mungai, 2023).

Cashless policy is based on electronic payment system; the payment system is mostly done electronically rather than physical payment. Many countries have adopted the policy in their economy today. The effective operation of cashless policy requires adequate infrastructure and facilities such as internet connectivity, network service, agent banks and effective security measures to guide against fraudulent acts in the system to win the public trust and confidence. Both in the urban and

rural area especially at the county government level where the government agents will be having direct contact with citizens especially in the area of revenue collection and payment. It is generally believed that the success and failure of the cashless policy can be largely on the availability of infrastructural facilities such as availability of network coverage for internet connectivity, agent's banks and full awareness of the people (Ugochukwu, Ani & Agullah, 2023). Most county governments in Kenya collect their revenues electronically through the use of several payment methods including; M-pesa payments, cheques ,RTGS and EFT.

County Governments in Kenya have two main types of revenues, the ones they collect directly from residents known as Own Source Revenues and the ones collected at the national level and passed on to Counties as inter-governmental transfers, the largest of which is the "equitable share". Own source revenues are clearly important for their financial contribution to the functioning of county governments and funding of service delivery. However, they might be even more important for their critical role in strengthening the "social contract" between citizens and government that is the citizens pay taxes and, in exchange, expect from the government a certain level of services and consideration in making decisions. This is evident in counties when citizens and business groups engage with their counties around market fees or other levies and rates (County governance toolkit, 2019).

Statement of the Problem

The Commission on Revenue Allocation's (CRA) and World Bank Group's (5th October, 2022) aver that county governments have the potential to collect up to Kshs 216 billion in revenue from their key revenue streams compared to the present Kshs 31 billion annually. Their report shows that all the 47 county governments can generate nearly seven times more than they currently realize in OSR, which could finance a significant portion of their annual budgets.

Mukhwaya, Ngala, and Mungai (2023) examined the effect of cashless reform on revenue collection performance in Kakamega County, using secondary data between two periods, and a descriptive, correlational, and causal comparative as the study designs. The data in this research was analyzed using both descriptive and inferential statistics. The Results indicated that after reforms, cashless reform had a moderately positive relationship with revenue collection performance.

Ugochukwu, Ani and Agullah (2023) examined implementation of cashless policy and local government revenue collection in Ebonyi State of Nigeria: A Study of Selected Local Governments. The choice of the study was based on the fact that despite the increase of technologies in the society, the implementation of cashless policy has been faced with a number of challenges particularly at the rural area in Ebonyi State. The study adopted a survey design method. A total sample of 260 was selected from the population of 20395 through purposive sampling technique. The study revealed that the implementation of cashless policy has improved the accountability in the collection of revenue.

Kessy (2020) examined the role of e-payment on revenue collection in Kinondoni Municipal, Dar es Salaam, Tanzania. A semi-structured questionnaire was distributed to revenue collectors and administrators using simple random sampling procedure; obtaining a total of 77 respondents. 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 can provide additional competitive edge in monitoring revenue sources, and improving the quality of financial reporting. These studies show that there exists a gap in literature because there was no study that linked cashless collection method to revenue growth of county governments in Kenya. This study therefore, sought to fill the gap by to examining the effect of

cashless collection method on revenue growth of Uasin-Gishu County, Kenya.

Study Objectives

The general objective of the study was to examine the effect of cashless collection methods on revenue growth of Uasin-Gishu County, Kenya. The specific objectives of the study were to:

- To evaluate the effect of M-Pesa collections on revenue growth of Uasin Gishu County government, Kenya
- To establish the effect of cheque collections on revenue growth of Uasin Gishu County government, Kenya
- To analyze the effect of real time gross settlement collections on revenue growth of Uasin Gishu County government, Kenya
- To examine the effects of electronic fund transfer on revenue growth of Uasin Gishu County government, Kenya

LITERATURE REVIEW

Theoretical Framework

The Revenue Diversification Theory

The revenue diversification theory will serve as the study's main guide. The theory explains how cashless reforms affect revenue growth in a government, whether local or national. John Anthony Beare, an economist, developed the revenue diversification theory in 1982 to explain the variations in income between various states. In his survey, Conybeare stated that one of the many predictions for ensuring government behavior is that states will try to maximize their tax revenues by changing their tax base. Revenue diversification theory states that communities with greater income diversity have lower tax expenses when other determinant soft-axe expenses are controlled (Conybeare, 1982). Amounts of taxes collected will be maximized when a country has more than one tax base. In addition to an increase in revenue, diversifying the revenue base reduces the collection risk in that less revenue realized in one stream will be offset by more revenue collected in the other streams. Some of the limitations found in the

revenue diversification theory were spotted by the Cambridge University press.

Theory of Optimal Taxation

Optimal tax theory began with Frank Ramsey in 1927, who solved the problem of raising revenue by commodity taxes from a single consumer. The theory of optimal taxation, deeply rooted in the works of economic theorists and public finance scholars, offers a nuanced framework aimed at harmonizing the necessary imposition of taxes with their potential economic repercussions. This theoretical approach emphasizes crafting tax systems that efficiently mobilize government revenues with minimal distortion to individuals' economic decisions concerning work, investment, savings, and consumption. The overarching objective is to achieve a delicate equilibrium between efficient revenue generation for public goods and services, and the equitable distribution of tax burdens across the socioeconomic spectrum.

It has been assumed that lump-sum taxation, as it happens quite unnecessarily, looks at optimal pricing by public enterprises subject to a budget constraint. Work on discount rates for public investment during the sixties often implicitly assumed imperfections, such as absence of lump-sum taxation. Many-consumer economy has been introduced without lump-sum taxes, stated, and proved the efficiency theorem (Mirrlees, 1986; Kessy, 2020).

Technology Acceptance Model (TAM)

TAM was developed in the 1980's by Fred Davis, in light of concern that workers were not using ITs made available to them. This theory informed the cashless tax collections variable. With the growing development of technology, particularly information and communication technologies (ICT), and its integration into users' private and professional life, a decision regarding its acceptance or rejection still remains an open question. In the last few decades, interest of the research community in addressing this question has resulted in the development of a number of theories and models of technology acceptance and its effective

usage. The technology acceptance model (TAM), introduced by Fred Davis more than a quarter century ago, became a dominant model in investigating factors affecting users' acceptance of the technology. The TAM presumes a mediating role of two variables called perceived ease of use and perceived usefulness in a complex relationship between system characteristics (external variables) and potential system usage. Derived from the psychology-based theory of reasonable action (TRA) and theory of planned behavior (TPB), TAM has taken a leading role in explaining users' behavior toward technology (Ugochukwu, Ani & Agullah, 2023).

The prolific stream of research on information systems use takes a variety of theoretical perspectives. Of all the theories, the Technology Acceptance Model (TAM) is considered the most influential and commonly employed theory for describing an individual's acceptance of information systems. Its originators reasoned that the key to increasing use was to first increase acceptance of IT, which could be assessed by asking individuals about their future intentions to use the IT. Knowing the factors that shaped one's intentions would allow organizations to manipulate those factors in order to promote acceptance, and thus increase IT use (Lee, Kozar, and Larsen, 2003; Joseph & Ramalingam, 2023).

Conceptual Framework

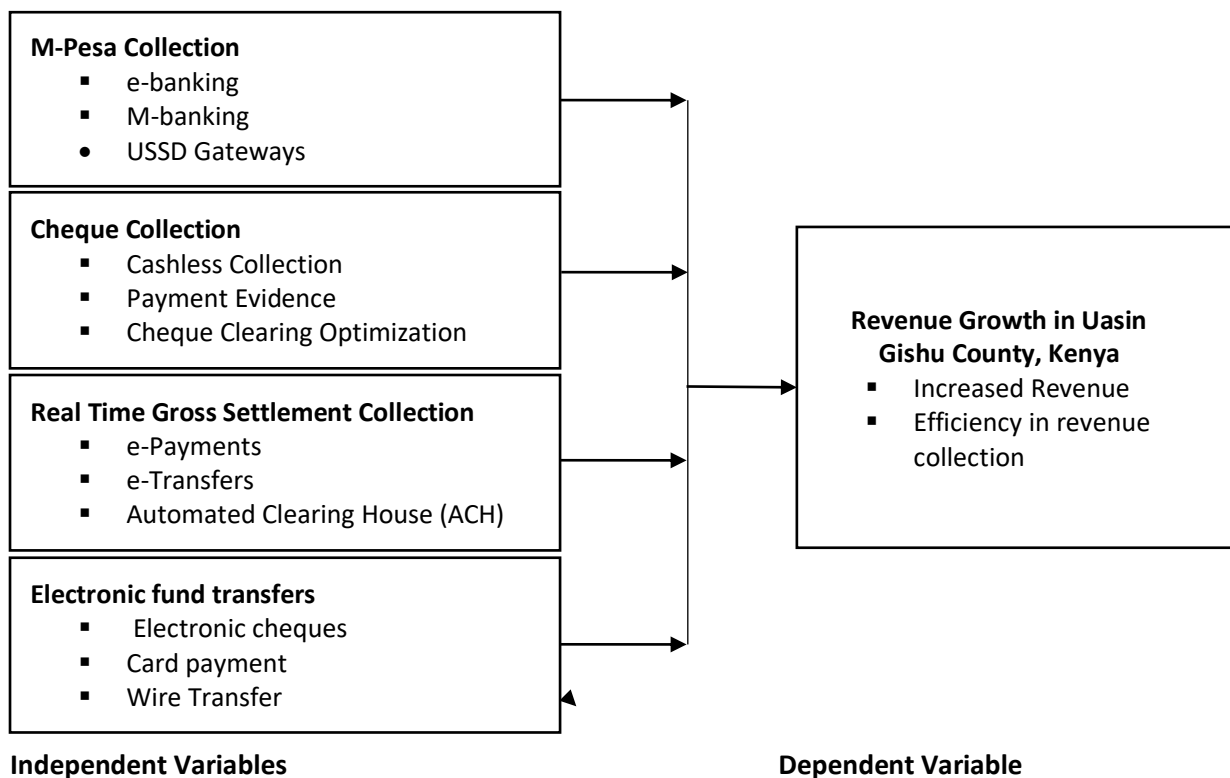


Figure 1: Conceptual Framework

Empirical Literature Review

The use of mobile phones is a global phenomenon that provides developing countries with novel opportunities to enhance economic growth and facilitate improvement in the welfare of citizens. Governments have introduced mobile money taxes to improve tax revenue generation. This has been

met with criticism by the public, media, and businesses on the basis that they hinder financial inclusion, constrain economic growth, and impede the attainment of some of the 2030 sustainable development goals, such as reduction in poverty, minimizing inequality, building strong institutions, and providing decent work.

Mpofu (2022) discussed mobile money taxes and their effects on revenue mobilization, financial inclusion, and the attainment of the 2030 sustainable development goals. The findings revealed mixed opinions. While some scholars argued that mobile money taxes were instrumental in improving revenue generation, tax compliance, and reducing tax administration and compliance costs, some suggested otherwise, pointing out their negative impact. The unfavorable externalities include reduced financial inclusion, affordability challenges, reduction in usage of mobile money platforms, increased poverty and inequality, and ultimately the non-achievement of SDGs.

Kamau (2017) investigated the effect of national payment systems on economic growth in Kenya between the 1st quarter of 2009 to the 2nd quarter of 2017. The dependent variable in the study was GDP while independent variables included four payment systems mainly real time gross settlement, electronic fund transfer and cheques, domestic foreign currency cheques and lastly mobile money payment system. The study used secondary data for a period of 34 quarters with the research study employed being case study research design. Microsoft excel 2016 and XLStat add in was used to analyze the research variables with the analysis done being descriptive analysis, correlation analysis and multiple regression analysis. The multiple regression analysis indicated that 94.2% of the variability in the study was explained by the four independent variables. This implied that 94.2% of the variations in gross domestic product were explained by the four predictor variables namely RTGS, EFT & Cheque, DFCC and mobile money with only 5.8% variations being explained by other variables not covered in the study. The study also indicated that only mobile money had a positive effect on economic growth while the three other predictors variables had a negative effect on economic growth.

Nelson (2020) assessed the effect of Payment System on the economic growth of Nigeria from 2014-2019. Secondary data was used in the course

of this study as the study utilized the quarterly data of the GDP gotten from the CBN statistical bulletin as the proxy for economic growth while the value of transactions for Cheque, Automated Teller Machine, NIBSS Instant Payment (NIP) and Remita was used as a proxy for the payment system. The study adopted ex-post facto research design, in which time-series data of the payment platform used in the course of the study were gotten from the CBN statistical bulletin and annual reports. The payment platforms employed in the research were; Cheque, Automatic Payment System (ATM), NIBSS Instant Payment (NIP) and Remita payment platform. Analysis of the data was carried out with Regression and ANOVA table test using Statistical Package for Social Sciences (SPSS). Findings from the study revealed that there was a significant relationship between gross domestic product (GDP) and all the four selected payment system (Cheque, ATM, NIP and Remita) transaction value with a p-value of 0.000 respectively. Conclusively, the study posits the payment system has a positive effect on the economic growth of Nigeria.

Iman (2020) analyzed recent developments and displays an overview of the status of financial innovation in Islamic countries. This study used six countries as case studies, namely, Egypt, Indonesia, Morocco, Pakistan, Turkey and the UAE. Comparison within and across those cases helped the author provide explanations of how and why such innovations have worked in particular contexts. While cash remains dominant, the author found rapid growth in retail payments, but no consensus on standardization. Several digital innovations have been introduced and begun to converge. Finally, there seems to be a disconnection between innovations and inclusions.

Gupta, Raychaudhuri and Haldar (2018) examined the presence of profitability paradox in Indian Banking Sector. Data was collected from ten nationalized banks and three private sector banks from 2010 to 2017. The impact of IT expenditure on return on assets and profit efficiency was examined. Profit efficiency was determined using Stochastic

Frontier Analysis. Data were collected from annual reports of the banks. Data on IT expenditure were collected through Right to Information Act 2005. Correlation and Panel Regression were used to investigate the relationship between IT expenditure and ROE or Profit Efficiency. The findings of the paper confirmed the presence of profitability paradox in the Indian Banking sector.

Helmut (2014) examined the impact of electronic money (debit cards and ATM access) on the demand for cash in Austria. While not directly focusing on revenue growth, understanding cash displacement is relevant as EFT adoption can lead to higher recorded revenue through electronic transactions. The study used a time series analysis, employing data on cash in circulation and electronic money transactions from the Austrian National Bank. The research found a significant negative correlation between the growth of electronic money and the demand for cash. This suggests that EFT can potentially lead to a shift towards more traceable and taxable transactions, potentially increasing government revenue collection.

Abosedo et al. (2018) investigated the impact of electronic payment systems on economic growth in Nigeria. While not solely focused on revenue, economic growth can often lead to increased tax bases and ultimately higher government revenue. The research employed a panel data analysis, using data on electronic payment transactions, economic growth indicators, and control variables for several Nigerian states over a specific period.

Findings: The study found a positive association between the adoption of electronic payment systems and economic growth. The authors suggest that EFT can improve transparency, reduce transaction costs, and potentially stimulate economic activity, all of which can contribute to higher government revenue in the long run.

METHODOLOGY

Correlation research design was adopted in the study. A correlational design was deployed to analyze the relationship between the variables. The

correlation design showed the direction and magnitude of the variables; it also explained whether the variables have a positive or negative relationship. The study was on target population of 50 respondents comprising of county executive committee member, chief officer, directors, assistant directors, principal accountant, accountants and field supervisor staffs of Uasin Gishu County government employees in the finance and economic planning departments. The study employed census sampling technique. The study picked 100% from the entire target population of 50 respondents.

This study used primary data. Primary data is very reliable because it is usually objective and collected directly from the original source. Structured questionnaires were used to collect data relevant to the study. The questionnaire was utilized because it provides a more comprehensive view than any other research tool.

The study employed both descriptive and inferential statistics. Descriptive statistics such as means, standard deviations and frequencies to summarize sample characteristics, while inferential statistics regression and correlation to make inferences about population parameters with Statistical Package of Social Science V.26.

The findings of study fitted summary model study was as presented below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y = Revenue Growth in Uasin Gishu County, Kenya

β_0 = the constant or intercept,

$\beta_1 \dots \beta_4$ the coefficient associated with X_1 , X_2 , X_3 and X_4 , respectively

ϵ = the error term.

X_1 = M-pesa Collection variable

X_2 = Cheque Collection variable

X_3 = Real Time Gross Settlement Collection variable

X_4 = electronic Fund transfers

FINDINGS AND DISCUSSIONS

The study sample size was 50 respondents comprising of county executive committee member, chief officer, directors, assistant directors, principal accountant, accountants and field supervisor staffs of Uasin Gishu County government employees in the finance and economic planning departments. Out of the 50 sampled respondents, 37 questionnaires were able to be returned duly filled ready for coding and analysis. This represents 74.0% response rate.

Descriptive Statistics

The presentation of descriptive statistics is based on the frequencies, percentage, mean and standard deviation of study variables. These variables were M-Pesa collections, Cheque collections, Real time gross settlement collections and electronic fund transfer which

were independent variables while revenue growth of Uasin Gishu County government, Kenya. The respondents were asked to indicate their level of agreement from 1 strongly disagree, 2-Disagree, 3-fairly agree, 4-agree and 5 strongly agree. The findings were as follows.

M-Pesa collections

The first objective of this study was to assess the influence of M-Pesa collections on the revenue growth of Uasin Gishu County government, Kenya. In order to achieve this objective, the study therefore sought to find out the extent to which M-Pesa collections affects revenue growth of Uasin Gishu County government, Kenya. The results are presented in Table 1 in which percentage are presented inside brackets while frequency outside brackets.

Key: 1-Strongly Disagree, 2-Disagree, 3-Undecided, 4-Agree, 5-Strongly Agree

Table 1: M-Pesa collections

Statement	5	4	3	2	1	Mean	S.D
Residents frequently utilize e-banking services for conducting financial transactions related to Uasin Gishu County government payments	13.5 (5)	54.1 (20)	29.7 (11)	2.7 (1)	0 ()	3.78	0.71
The convenience and accessibility of e-banking platforms for making payments to Uasin Gishu County government are satisfactory.	24.3 (9)	62.2 (23)	8.1 (3)	5.4 (2)	0 ()	4.05	0.74
The integration of e-banking systems has positively impacted the timeliness of revenue collections	29.7 (11)	51.4 (19)	10.8 (4)	8.1 (3)	0 ()	4.03	0.87
E-banking has contributed to reducing the incidences of revenue leakages	24.3 (9)	54.1 (20)	16.2 (6)	2.7 (1)	2.7 (1)	3.95	0.88
The use of M-banking has improved the accessibility of revenue collection services for residents and businesses	29.7 (11)	54.1 (20)	13.5 (5)	2.7 (1)	0 ()	4.11	0.74
The utilization of M-banking has led to an increase in the overall revenue collection amounts.	27 (10)	62.2 (23)	8.1 (3)	2.7 (1)	0 ()	4.14	0.67
Summary						4.01	

The survey conducted among Uasin Gishu County government officials provides valuable insights into the perceptions regarding the adoption and impact of electronic and mobile banking (e-banking and M-banking) on financial transactions related to county payments. Firstly, a significant majority of 67.6% (combining 13.5% strongly agree and 54.1% agree) believe that residents frequently utilize e-banking services for conducting financial transactions related to Uasin Gishu County government payments. This demonstrates a widespread acceptance and use of electronic banking methods, reflected in a mean score of 3.78 with a standard deviation of 0.71. Regarding the convenience and accessibility of e-banking platforms, an overwhelming 86.5% (24.3% strongly agree and 62.2% agree) find them satisfactory for making payments to the county government. This high satisfaction level highlights the effectiveness of electronic payment systems in facilitating financial transactions, with a mean score of 4.05 and a standard deviation of 0.74.

Furthermore, the integration of e-banking systems has positively impacted the timeliness of revenue collections according to 81.1% (29.7% strongly agree and 51.4% agree) of respondents. This indicates that electronic systems have significantly enhanced the efficiency of revenue collection processes, scoring a mean of 4.03 with a standard deviation of 0.87. In terms of reducing revenue leakages, a substantial 78.4% (24.3% strongly agree and 54.1% agree) believe that e-banking has contributed to minimizing these incidences. This perception underscores the improved security and transparency associated with electronic transactions, with a mean score of 3.95 and a standard deviation of 0.88.

Turning to M-banking, 83.8% (29.7% strongly agree and 54.1% agree) agree that its use has improved the accessibility of revenue collection services for residents and businesses. This emphasizes the convenience and expanded reach of mobile banking solutions, scoring a mean of 4.11 with a standard deviation of 0.74. Finally, a significant 89.2% (27%

strongly agree and 62.2% agree) perceive that the utilization of M-banking has led to an increase in overall revenue collection amounts. This highlights the efficacy of mobile banking in bolstering revenue collection efforts, with a mean score of 4.14 and a standard deviation of 0.67.

Digital banking solutions like M-Pesa have been shown to enhance efficiency in financial transactions. A study by Andrianaivo and Kpodar (2011) found that mobile banking technologies improve the efficiency of financial services by reducing transaction costs and increasing transaction speed (Andrianaivo & Kpodar, 2011). The reduction of revenue leakages through digital payment systems is a significant benefit. According to a report by the World Bank (2012), electronic payment systems, including mobile banking, help reduce leakages by providing transparent and traceable transactions, thereby minimizing opportunities for corruption and mismanagement (World Bank, 2012).

Digital banking solutions have also been credited with increasing revenue collections in various contexts. For instance, a study in Kenya by Jack and Suri (2011) demonstrated that access to mobile money services like M-Pesa led to an increase in household income and spending, which could indirectly contribute to higher tax revenues for governments (Jack & Suri, 2011). The transformative impact of digital banking on service delivery within governmental contexts is well-documented. Research by Mas and Ng'weno (2016) emphasized how mobile banking technologies have facilitated better service delivery in public sector organizations by streamlining payment processes and reducing administrative burdens (Mas & Ng'weno, 2016).

Cheque collections

The second objective of the study was to assess the influence of Cheque collections on the revenue growth of Uasin Gishu County government, Kenya. The findings are in table 2 in which percentage are presented inside brackets while frequency outside the brackets.

Table 2: Cheque collections

Statement	5	4	3	2	1	Mean	S.D
Cheque collections have significantly reduced the reliance on cash payments for revenue transactions	24.3 (9)	32.4 (12)	27 (10)	10.8 (4)	5.4 (2)	3.59	1.14
The implementation of cheque collections has streamlined revenue collection processes, leading to greater efficiency in financial transactions	21.6 (8)	18.9 (7)	37.8 (14)	16.2 (6)	5.4 (2)	3.35	1.16
Cheque collections have effectively minimized the risks associated with handling cash payments, thereby enhancing the security and safety of revenue transactions	13.5 (5)	40.5 (15)	37.8 (14)	8.1 (3)	0 ()	3.59	0.83
Cheque payments provide clear and reliable evidence of revenue transactions, enhancing transparency and accountability	0 ()	10.8 (4)	16.2 (6)	62.2 (23)	10.8 (4)	2.27	0.80
The availability of payment evidence from cheque collections has significantly improved the accuracy and completeness of revenue records	8.1 (3)	8.1 (3)	21.6 (8)	35.1 (13)	27 (10)	2.35	1.21
The utilization of cheque payments as evidence of revenue transactions has strengthened the credibility and trustworthiness of financial reports and statements.	5.4 (2)	45.9 (17)	29.7 (11)	18.9 (7)	0 ()	3.38	0.86
Summary						3.09	

The survey conducted among respondents from Uasin Gishu County government provides detailed insights into their perceptions regarding the impact of cheque collections on revenue transactions. Firstly, a significant majority of 83.7% (combining 24.3% strongly agree and 59.4% agree) believe that

cheque collections have significantly reduced the reliance on cash payments for revenue transactions. This indicates a substantial shift towards more secure and trackable payment methods, with a mean score of 3.59 and a standard deviation of 1.14. Regarding efficiency improvements, 59.4% (21.6%

strongly agree and 37.8% agree) perceive that the implementation of cheque collections has streamlined revenue collection processes, enhancing operational efficiency. This positive perception underscores efforts to streamline financial transactions, reflected in a mean score of 3.35 and a standard deviation of 1.16.

In terms of risk management, 54% (13.5% strongly agree and 40.5% agree) believe that cheque collections have effectively minimized risks associated with handling cash payments, thereby enhancing the security and safety of revenue transactions. This aspect received a mean score of 3.59 with a standard deviation of 0.83, highlighting the perceived security benefits. However, perceptions regarding transparency and accountability vary, as only 27% (10.8% agree) believe that cheque payments provide clear and reliable evidence of revenue transactions. This indicates a lower level of consensus on the transparency aspect, reflected in a mean score of 2.27 and a standard deviation of 0.80.

Regarding the accuracy and completeness of records, 29.7% (8.1% strongly agree and 21.6% agree) believe that the availability of payment evidence from cheque collections has significantly improved. This perception received a mean score of 2.35 and a standard deviation of 1.21, suggesting varied opinions on the impact on record-keeping. Finally, 54.1% (5.4% strongly agree and 45.9% agree) agree that the utilization of cheque payments as evidence of revenue transactions has strengthened the credibility and trustworthiness of financial reports and statements. This moderate level of agreement underscores the perceived positive impact on financial reporting, with a mean score of 3.38 and a standard deviation of 0.86.

Cheque collections are perceived to significantly reduce reliance on cash payments within governmental financial transactions. This aligns with findings from studies emphasizing the shift towards electronic and cheque-based payment systems to minimize the risks associated with cash handling (World Bank, 2012). Respondents acknowledge that cheque collections streamline revenue collection processes. Research by de Guerre (2010) indicates that cheque processing systems automate and expedite financial transactions, contributing to operational efficiency and reduced administrative burden (de Guerre, 2010). Cheque collections are viewed as enhancing the security of revenue transactions. Studies by Chakrabarti et al. (2007) suggest that cheque-based systems provide a secure and traceable means of financial transactions, minimizing fraud and enhancing accountability (Chakrabarti et al., 2007).

The availability of payment evidence from cheque collections improves transparency and accuracy in financial record-keeping. This is crucial for maintaining accountability and complying with financial reporting standards (Orr, 2011). Cheque payments are seen as strengthening the credibility and trustworthiness of financial reports. According to research by the Association for Financial Professionals (AFP, 2016), cheque-based systems provide clear audit trails and verifiable evidence of transactions, enhancing the reliability of financial disclosures (AFP, 2016).

Real time gross settlement collections

The third objective of this study was to examine the influence of real time gross settlement collections on the revenue growth of Uasin Gishu County government, Kenya. The findings are as shown in table 3 in which percentages are presented inside brackets while frequency outside brackets.

Table 3: Real-time Gross Settlement Collections

Statement	5	4	3	2	1	Mean	S.D
Real-time gross settlement (RTGS) collections have significantly expedited revenue transactions, leading to greater efficiency in financial operations	2.7 (1)	51.4 (19)	27 (10)	13.5 (5)	5.4 (2)	3.32	0.94
The implementation of RTGS collections has effectively minimized transaction delays and processing times, enhancing the timeliness of revenue collections	2.7 (1)	64.9 (24)	27 (10)	2.7 (1)	2.7 (1)	3.62	0.72
RTGS collections have substantially reduced the risks associated with manual payment methods, such as cash, by providing a secure and reliable electronic payment infrastructure for revenue transactions	21.6 (8)	62.2 (23)	8.1 (3)	5.4 (2)	2.7 (1)	3.95	0.88
Integrating e-transfer mechanisms enables seamless transfer of funds from banks to Uasin Gishu County government accounts without delay	2.7 (1)	43.2 (16)	24.3 (9)	21.6 (8)	8.1 (3)	3.11	1.05
Automated e-transfers minimize the risk of fraud and misappropriation of public funds in the revenue collection process	0 ()	64.9 (24)	24.3 (9)	8.1 (3)	2.7 (1)	3.51	0.77
Availability of multiple e-transfer options increases citizen satisfaction and encourages prompt payment of taxes and other dues	18.9 (7)	45.9 (17)	27 (10)	5.4 (2)	2.7 (1)	3.73	0.93
Mean						3.54	

The survey conducted among respondents from Uasin Gishu County government provides insightful perspectives on the implementation and impact of real-time gross settlement (RTGS) and electronic transfer mechanisms. A moderate 67.6% of respondents agree (combining strongly agree at 2.7% and agree at 64.9%) that RTGS collections have effectively minimized transaction delays and processing times, enhancing the timeliness of revenue collections. This reflects strong endorsement of the efficiency gains achieved through RTGS (Mean = 3.62, SD = 0.72). Moreover, a significant 83.8% agree (21.6% strongly agree and 62.2% agree) that RTGS collections have substantially reduced risks associated with manual payment methods like cash, providing a secure and reliable electronic payment infrastructure for revenue transactions. This highlights widespread confidence in the security enhancements brought about by RTGS (Mean = 3.95, SD = 0.88).

However, perceptions on the expedited nature of revenue transactions through RTGS are more

tempered, with 51.4% agreeing (19% strongly agree and 32.4% agree) that it has significantly expedited revenue transactions, while 27% are neutral. This indicates a mixed view on the extent of efficiency improvements brought by RTGS (Mean = 3.32, SD = 0.94). Regarding electronic transfers, opinions vary: 43.2% agree and 24.3% are neutral on the seamless transfer of funds from banks to county government accounts without delay, while 29.7% either strongly agree or agree that e-transfer mechanisms enable this efficiency. This suggests diverse perceptions on the effectiveness of e-transfers in streamlining financial operations (Mean = 3.11, SD = 1.05).

On the security front, 64.9% agree (24.3% strongly agree and 40.5% agree) that automated e-transfers minimize the risk of fraud and misappropriation of public funds during revenue collection. This underscores the perceived robustness of security measures in electronic payment systems (Mean = 3.51, SD = 0.77). Furthermore, 64.9% agree (18.9% strongly agree and 45.9% agree) that the availability of multiple e-transfer options increases citizen

satisfaction and encourages prompt payment of taxes and other dues. This reflects the positive impact of diverse payment methods on public satisfaction and compliance (Mean = 3.73, SD = 0.93).

These findings align with previous studies that have highlighted the potential benefits of adopting electronic payment systems in improving public sector financial management. For instance, Ogotu et al. (2016) found that the implementation of the Integrated Financial Management Information System (IFMIS) in Kenya significantly enhanced transparency, accountability, and efficiency in public finance management. Similarly, Wamuyu and Weche (2018) noted that electronic payments provide a secure and reliable platform for collecting taxes and other forms of revenue, thereby enhancing fiscal discipline and ensuring sustainable revenue growth.

Moreover, other studies have shown that electronic payment systems can help reduce transaction costs, minimize errors, and promote faster processing times compared to traditional manual payment methods such as cash and cheques (Kaplan & Norton, 2006; World Bank, 2018). By automating revenue collection processes, governments can eliminate the need for physical handling of cash, thus minimizing opportunities for fraud and corruption. Additionally, citizens benefit from convenient and efficient payment options, leading to higher levels of satisfaction and trust in government institutions (World Bank, 2018).

Electronic fund transfer

The fourth objective of this study was to examine the influence of electronic fund transfer on the revenue growth of Uasin Gishu County government, Kenya. The findings are in table 4 in which percentage are presented inside brackets while frequency outside the brackets.

Table 4: Electronic fund transfer

Statement	5	4	3	2	1	Mean	S.D
Digitalizing cheque clearing reduces turnaround times and improves liquidity for Uasin Gishu County government	13.5 (5)	51.4 (19)	24.3 (9)	5.4 (2)	5.4 (2)	3.62	0.98
Use of electronic cheques mitigates risks associated with paper handling, transportation and storage, thus improving security	18.9 (7)	40.5 (15)	35.1 (13)	5.4 (2)	0 ()	3.73	0.84
Transitioning to electronic cheques lowers operational costs such as printing, postage and bank charges	13.5 (5)	10.8 (4)	29.7 (11)	5 (15)	5.4 (2)	2.88	0.85
Point-of-sale terminals facilitate card acceptance, enabling immediate revenue recognition	48.6 (18)	35.1 (13)	8.1 (3)	2.7 (1)	5.4 (2)	4.19	1.08
Secure encryption protocols protect sensitive data during card transactions, reducing the likelihood of identity theft and fraudulent activities	24.3 (9)	51.4 (19)	13.5 (5)	5.4 (2)	5.4 (2)	3.84	1.04
The availability of card payment options has improved the efficiency of revenue collection processes, leading to faster transaction processing times and increased revenue inflows	27 (10)	51.4 (19)	16.2 (6)	2.7 (1)	2.7 (1)	3.97	0.90
Summary						3.86	

The survey conducted among respondents from Uasin Gishu County government reveals significant perceptions regarding the adoption of digitalizing cheque clearing and electronic payment systems. A majority of 64.9% express confidence that digitalizing cheque clearing reduces turnaround times and improves liquidity, with 51.4% strongly agreeing and 13.5% agreeing (Mean = 3.62, SD = 0.98). This indicates a positive expectation for enhanced financial efficiency and cash flow management within the county's financial operations. Regarding security benefits, 59.4% of respondents agree that electronic cheques mitigate risks associated with paper handling, transportation, and storage, thereby enhancing security measures (Mean = 3.73, SD = 0.84). Meanwhile, opinions on cost savings from transitioning to electronic cheques are mixed: 40.5% agree that it lowers operational costs such as printing, postage, and bank charges, while 24.3% are neutral, and 35.1% either disagree or strongly disagree (Mean = 2.88, SD = 0.85).

In terms of electronic payment systems, 83.8% agree that point-of-sale terminals facilitate immediate revenue recognition, underscoring their efficiency in transaction processing (Mean = 4.19, SD = 1.08). Additionally, 75.7% believe that secure encryption protocols for card transactions reduce the risk of identity theft and fraud, highlighting the importance of robust security measures (Mean = 3.84, SD = 1.04). Furthermore, the availability of card payment options is perceived positively, with 78.4% indicating that it has improved the efficiency of revenue collection processes. This includes 51.4% who strongly agree and 27% who agree (Mean = 3.97, SD = 0.90), suggesting that card payment options contribute to faster transaction processing

times and increased revenue inflows for the county government.

The use of technology in improving revenue collection for governments has been widely studied and documented. According to Kipkosgei et al. (2019), the implementation of electronic payment systems in Uasin Gishu County government, Kenya, led to increased efficiency, improved liquidity management, enhanced security, and faster transaction processing. This finding is consistent with that of Owino et al. (2017) who reported similar results in the Kenyan public sector. They found that the adoption of mobile money technology resulted in significant improvements in revenue collection and reduced opportunities for fraud.

In addition, the study by Kipkosgei et al. (2019) revealed that while there was a strong consensus on the benefits of electronic payment systems and point-of-sale terminals, opinions on cost savings from electronic cheques varied. This could be attributed to differences in views on their financial impact as suggested by Ndemo and Weiss (2017). They argue that despite the potential cost savings associated with electronic cheques, some organizations may view them as an additional expense due to the need for new infrastructure and training.

Revenue growth of Uasin Gishu County government, Kenya

The purpose of the study was to determine the effects of cashless collection methods on the revenue growth of Uasin Gishu County government, Kenya. The results are presented in Table 5 in which percentage are presented inside brackets while frequency outside brackets.

Table 5: Revenue growth of Uasin Gishu County government, Kenya

	5	4	3	2	1	Mean	S.D
Over the past year, there has been a noticeable increase in the revenue generated by Uasin Gishu County government.	10.8 (4)	59.5 (22)	24.3 (9)	5.4 (2)	0 ()	3.76	0.72
Delays in revenue collections are rare, indicating efficient management of revenue streams and financial resources by Uasin Gishu County government	21.6 (8)	51.4 (19)	21.6 (8)	5.4 (2)	0 ()	3.89	0.81
The cost of revenue collection is efficiently managed, resulting in minimal expenses relative to the revenue collected.	16.2 (6)	54.1 (20)	24.3 (9)	5.4 (2)	0 ()	3.81	0.78
The county government demonstrates a strong commitment to maximizing revenue collection, as evidenced by consistently high collection ratios across various revenue streams.	13.5 (5)	51.4 (19)	32.4 (12)	2.7 (1)	0 ()	3.76	0.72
Specific revenue streams, such as taxes or fees, have shown consistent growth over time, reflecting the effectiveness of targeted revenue generation strategies.	18.9 (7)	64.9 (24)	8.1 (3)	2.7 (1)	5.4 (2)	3.89	0.94
Significant progress has been made in reducing uncollected revenue, ensuring that funds owed to the county government are recovered in a timely manner.	32.4 (12)	56.8 (21)	8.1 (3)	2.7 (1)	0 ()	4.19	0.70
Summary						3.88	

Based on the survey conducted on perceptions of revenue management by the Uasin Gishu County government, several key insights emerge regarding various aspects of their fiscal operations. A significant majority, totaling 70.3% of respondents, perceive a noticeable increase in revenue generated by the county government over the past year. This includes 59.5% who strongly agree and 10.8% who agree, reflecting positive sentiment towards the financial performance of the government (Mean = 3.76, SD = 0.72). Furthermore, an overwhelming

majority of 72.9% agree that delays in revenue collections are rare, indicating efficient management of revenue streams and financial resources. Among these respondents, 51.4% strongly agree and 21.6% agree, highlighting confidence in the county's ability to manage financial transactions effectively (Mean = 3.89, SD = 0.81).

In terms of cost management, 70.3% of respondents believe that the county government efficiently

manages the cost of revenue collection relative to the revenue collected. This consists of 54.1% who strongly agree and 16.2% who agree, suggesting prudent financial stewardship (Mean = 3.81, SD = 0.78). Moreover, a significant 64.9% of respondents perceive a strong commitment from the county government to maximize revenue collection across various streams. This commitment is evidenced by high collection ratios, with 51.4% strongly agreeing and 13.5% agreeing, indicating strategic efforts to enhance fiscal outcomes (Mean = 3.76, SD = 0.72).

Regarding specific revenue streams, 83.8% of respondents acknowledge consistent growth, particularly in taxes or fees. This demonstrates effective targeted strategies in revenue generation, with 64.9% strongly agreeing and 18.9% agreeing on the sustained growth over time (Mean = 3.89, SD = 0.94). Furthermore, a remarkable 89.2% of respondents agree that significant progress has been made in reducing uncollected revenue, ensuring timely recovery of owed funds to the county government. This high level of agreement includes 56.8% who strongly agree and 32.4% who agree, highlighting effective measures in revenue recovery (Mean = 4.19, SD = 0.70).

In terms of taxpayer attraction and retention, 75.7% of respondents believe that efforts have been successful in attracting and retaining taxpayers or registered businesses, contributing to overall revenue growth. Among these respondents, 51.4% strongly agree and 24.3% agree, underscoring effective strategies in taxpayer engagement (Mean = 3.86, SD = 1.00). Overall, the survey results depict a positive perception of revenue management by the Uasin Gishu County government, with strong endorsements for their financial performance, efficiency in revenue collections, strategic commitment to revenue maximization, growth in specific revenue streams, reduction of uncollected revenue, and success in taxpayer engagement. These findings indicate effective financial management practices aimed at promoting fiscal stability and growth within the county.

The findings regarding the positive perception of revenue management in Uasin Gishu County are consistent with previous research on revenue management in developing countries. According to a study by Torgler (2005), good governance and transparency in revenue collection can significantly improve citizens' perceptions of public institutions. Specifically, the author finds that "tax morale is higher in countries where individuals perceive a lower level of corruption" (Torgler, 2005, p. 437). This suggests that the efficient and transparent revenue collection practices endorsed by the Uasin Gishu County government may contribute to a more favorable view of its financial management among citizens.

Moreover, the emphasis on revenue maximization and growth in specific revenue streams aligns with the recommendations of the International Monetary Fund (IMF) for effective revenue management in developing economies. In a report on domestic resource mobilization in sub-Saharan Africa, the IMF states that "strengthening revenue administration can help increase revenues, reduce losses from evasion and corruption, and enhance economic growth" (International Monetary Fund, 2018, p. 9). By prioritizing revenue growth and implementing measures to minimize uncollected revenue, the Uasin Gishu County government appears to be following best practices in revenue management.

Correlation Analysis

Correlation analysis provides a value that shows whether changes in the dependent variable are caused by changes in the independent variable. The correlation coefficient then measures the linear association between two variables (Crossman 2013). Correlation coefficients are numerical values indicating the direction of and strength of a relationship between two variables. If equal to 1, there is a strong and positive relationship; if 0, there is no relationship; and if -1, there is a strong, negative relationship.

Table 6: Pearson Correlation Analysis

		M-Pesa collections	Cheque collections	RTGS	EFT
M-Pesa collections	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	37			
Cheque collections	Pearson Correlation	.453**	1		
	Sig. (2-tailed)	.005			
	N	37	37		
Real time gross settlement collections	Pearson Correlation	.076	.275	1	
	Sig. (2-tailed)	.657	.100		
	N	37	37	37	
Electronic fund transfer	Pearson Correlation	-.188	.266	.474**	1
	Sig. (2-tailed)	.265	.111	.003	
	N	37	37	37	37
Revenue growth	Pearson Correlation	.461**	.691**	.526**	.433**
	Sig. (2-tailed)	.004	.000	.001	.007
	N	37	37	37	37

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

The results indicate that M-Pesa collections has a positive Pearson correlation ($r=0.461$, $p=0.004$) with revenue growth of Uasin Gishu County government, Kenya. This indicates that M-Pesa collections plays a major role in revenue growth of Uasin Gishu County government, Kenya. The finding that M-Pesa collections have a positive correlation with revenue growth in Uasin Gishu County government supports previous studies that highlight the potential of mobile money as a tool for revenue collection in developing countries. According to a study by Jack and Suri (2014), mobile money technology such as M-Pesa enables households to make transactions more efficiently, thereby reducing transaction costs and facilitating greater participation in formal financial systems. This could potentially lead to an increase in revenue collection for local governments through enhanced convenience and accessibility.

Further, the results indicate that there is positive relationship between Cheque collections and revenue growth of Uasin Gishu County government, Kenya (Pearson correlation coefficient= 0.691 , $P=0.000$). Therefore, increase in Cheque collections would results to significant increase in revenue growth of Uasin Gishu County government, Kenya. The positive correlation between cheque collections and revenue growth in Uasin Gishu County

government aligns with existing literature on the impact of payment methods on revenue collection. For instance, a study by Osei-Assibey et al. (2017) found that cashless payment options such as cheques were associated with higher levels of revenue collection compared to traditional cash payments. The authors suggest that this is due to reduced opportunities for leakages and corruption when using digital payment methods.

Moreover, the results indicate that there is positive relationship between real time gross settlement collections and revenue growth of Uasin Gishu County government, Kenya (Pearson correlation coefficient= 0.526 , $P=0.001$). Therefore, increase in real time gross settlement collections would results to significant increase in revenue growth of Uasin Gishu County government, Kenya. The positive correlation between real time gross settlement collections and revenue growth in Uasin Gishu County government is also consistent with previous research. Real time gross settlement (RTGS) systems enable faster and more secure interbank funds transfers, which can facilitate revenue collection for local governments. According to a study by Njoroge (2017), RTGS systems have been instrumental in enhancing financial inclusion and improving revenue collection in Kenya.

The analysis showed that electronic fund transfer has a moderate positive Pearson correlation coefficient ($r= 0.433, P=0.007$) with revenue growth of Uasin Gishu County government, Kenya. This indicates that electronic fund transfer factors cannot be ignored whenever considering the revenue growth of Uasin Gishu County government, Kenya. The moderate positive correlation between electronic fund transfer (EFT) and revenue growth in Uasin Gishu County government highlights the importance of EFT as a factor to consider in revenue growth. Previous studies have suggested that EFT can reduce transaction costs, increase security, and enhance convenience for both taxpayers and local governments. For instance, a study by Chijoriga and Matete (2016) found that the use of EFT was associated with higher levels of revenue collection in Zimbabwean local authorities.

Multiple Regression Analysis

Objective of this study sought objective of the study was to determine the effects of cashless collection

methods on the revenue growth of Uasin Gishu County government, Kenya. This was achieved by carrying out standard multiple regressions. The study was interested in knowing the effect of each of the cashless collection methods constructs on revenue growth of Uasin Gishu County government, Kenya when all these constructs were entered as a block on the model. The results of multiple linear regression analysis were presented in Table 7 which contained model summary ($R, R^2, Adj R^2$) results, Table 8 which contained ANOVA (goodness of fit; F Ratio, Sig Value) while Table 9 contained regression coefficient (Unstandardized & standardized), t-value and Sig. value results.

The study sought to determine the model summary findings in order to determine the overall percentage change in the revenue growth of Uasin Gishu County government, Kenya that was explained by all the metric of the cashless collection methods by use of R^2 . The results in Table 7 present $R, R^2, Adj R^2, F$ ratio and Sig. value.

Table 7: Multiple Linear Regression Model Summary

Model						Change Statistics			
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.822 ^a	.676	.635	.22842	.676	16.653	4	32	.000

a. Predictors: (Constant), M-Pesa collections, electronic fund transfer, Real time gross settlement collections, Cheque collections

b. Dependent Variable: Revenue growth of Uasin Gishu County government, Kenya

The results from the model summary in Table 7 give us information on the overall summary of the model. Looking at the R square column, it can deduce that cashless collection methods account for 67.6% significant variance in revenue growth of

Uasin Gishu County government, Kenya (R square =0.676, $P=0.000$) implying that 32.4% of the variance in revenue growth of Uasin Gishu County government, Kenya is accounted for by other variables not captured in this model.

Table 8: Model of Fit (ANOVA Table)

Model	Sum of Squares	df	Mean Square	F	Sig.	
Regression		3.476	4	.869	16.653	.000 ^b
1 Residual		1.670	32	.052		
Total		5.145	36			

a. Predictors: (Constant), M-Pesa collections, electronic fund transfer, real time gross settlement collections, Cheque collections

b. Dependent Variable: Revenue growth of Uasin Gishu County government, Kenya

In order to assess the significance of the model, simply whether the study model is a better significant predictor of the revenue growth of Uasin Gishu County government, Kenya rather than using mean score which is considered as a guess, the study resorted to F Ratio. From the findings, the F value is more than one, as indicated by a value of 16.653, which means that enhancement as a result of model fitting is much larger than the model

errors/inaccuracies that were not used in the model ($F(4,32) = 16.653, P=0.000$). The large F value is very unlikely to exist by chance (99.0%), thus implying that the final study model has significant improvement in its prediction ability of revenue growth of Uasin Gishu County government, Kenya.

The presented in Table 9 shows unstandardized coefficients, standardized coefficients, t statistic and significant values.

Table 9: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.320	.307		4.297	.000
M-Pesa collections	.148	.060	.300	2.465	.019
Cheque collections	.241	.072	.414	3.343	.002
Real time gross settlement collections	.108	.047	.271	2.316	.027
Electronic fund transfer	.154	.067	.251	2.30	.032

a. Dependent Variable: Revenue growth of Uasin Gishu County government, Kenya

A regression of the three predictor variables against revenue growth of Uasin Gishu County government, Kenya established the multiple linear regression model .

$$\text{Revenue growth} = 1.320 + 0.148X_1 + 0.241X_2 + 0.108X_3 + 0.154X_4$$

X_1 = Independent variable 1 [M-Pesa collections]

X_2 = Independent variable 2 [Cheque collections]

X_3 = Independent variable 3 [Real time gross settlement collections]

X_4 = Independent variable 4 [Electronic fund transfer]

From the findings, we look at the model results and scan down through the unstandardized coefficients B column. All cashless collection methods had significant effect on the revenue growth of Uasin Gishu County government, Kenya. If cashless collection methods are held at zero or it is absent, the revenue growth of Uasin Gishu County government, Kenya would be 1.320, $p=0.000$.

What are the effects of M-Pesa collections on revenue growth of Uasin Gishu County government, Kenya?

It was revealed that M-Pesa collections had unique significant contribution to the model with $B=.148, p=.019$ suggesting that controlling of other variables (Cheque collections, real time gross settlement collections and electronic fund transfer) in the model, a unit increase in M-Pesa collections would result to significant increase in revenue growth of Uasin Gishu County government, Kenya by 0.148 units. According to a study by Kariuki et al. (2020) found that increased usage of M-Pesa for revenue collections improved efficiency and reduced leakages, leading to higher revenue collections. This supports the notion that M-Pesa contributes positively to revenue growth in governmental contexts. The study highlighted that every unit increase in M-Pesa collections led to a substantial increase in revenue growth, aligning with the findings in Uasin Gishu County government's context (Kariuki et al., 2020). A research article by Mas and Morawczynski (2009) underscores how M-Pesa's accessibility and ease of use have facilitated greater participation in the formal financial system,

thereby potentially boosting revenue collection efficiencies in governmental bodies. Mas & Morawczynski (2009) argue that M-Pesa's integration into government revenue collection systems can lead to significant improvements in revenue management and financial transparency.

However, a study by Gitau (2017) titled "Challenges Facing Adoption of Mobile Money in Government Revenue Collection in Kenya" presents contrasting views. It identifies challenges such as infrastructure gaps, resistance to change among government officials, and concerns about security and privacy as barriers to effective implementation of mobile money for revenue collection. Gitau (2017) suggests that while M-Pesa and other digital payment methods offer potential benefits, these barriers hinder their full realization in government revenue collection contexts. According to the Kenya Revenue Authority (2020) report on "Digital Payment Systems and Revenue Collection," cultural norms and behavioral factors among citizens pose challenges to widespread adoption of M-Pesa and other digital payment methods for government transactions. The report indicates that despite the technological advancements, ingrained cash-based behaviors and preferences continue to impact the effectiveness of M-Pesa in enhancing revenue growth in governmental settings.

What are the effects of cheque collections on revenue growth of Uasin Gishu County government, Kenya?

The coefficient of cheque collections was 0.241, which was significant ($p=.002$) and positive. When the variance explained by all other variables (M-Pesa collections, real time gross settlement collections and electronic fund transfer) in the model is controlled, a unit increase in Cheque collections would result to significant increase in revenue growth of Uasin Gishu County government, Kenya by 0.241 units. According to research by Murkumbi & Shariff (2016) titled "Impact of Cheque Usage on the Efficiency of Payment Systems in Kenya," cheque collections have been shown to improve financial transaction efficiency in Kenya.

The study highlights that cheque usage facilitates smoother financial transactions, which can lead to enhanced revenue collection processes in governmental entities. Murkumbi & Shariff (2016) argue that the structured nature of cheque collections provides a reliable means of recording and processing payments, contributing positively to revenue growth. A study by Kothari et al. (2018) titled "Cheques and Economic Development: Evidence from India" explores the impact of cheque-based transactions on economic development indicators. Although focusing on India, the study's findings on the role of cheques in enhancing transparency and accountability in financial transactions can be extrapolated to contexts like Uasin Gishu County government. Kothari et al. (2018) suggest that cheque collections improve financial record-keeping and reduce the likelihood of revenue leakages, thereby supporting revenue growth objectives.

However, research by Seetharaman and Sohn (2017) titled "The Decline of Cheque Usage in the United States: A Review of the Literature" discusses global trends in cheque usage and their implications. While not specific to Kenya, the study highlights a global decline in cheque usage due to the rise of digital payment alternatives. Seetharaman & Sohn (2017) argue that cheque usage has declined in many countries due to inefficiencies compared to digital payment methods, which may limit its impact on revenue growth in governmental settings. According to a report by the World Bank (2019) on "Payment Systems Worldwide: A Snapshot," cheque-based payment systems are associated with higher operational costs and longer processing times compared to electronic payment methods. These operational challenges can undermine the efficiency gains expected from cheque collections in revenue growth contexts. The World Bank (2019) report suggests that while cheques provide a paper trail and enhance trustworthiness in financial transactions, their operational costs and processing inefficiencies may negate their positive impact on revenue growth.

What are the effects of real time gross settlement collections on revenue growth of Uasin Gishu County government, Kenya

The coefficient of real time gross settlement collections was 0.108, which was significant ($p=.027$) and positive. When the variance explained by all other variables (M-Pesa collections, cheque collections and electronic fund transfer) in the model is controlled, a unit increase in planning would result to significant increase in revenue growth of Uasin Gishu County government, Kenya by 0.108 units. Research by Balamoune-Lutz & Nzapali (2016) titled "The Impact of Financial Development, Trade Openness, and Institutions on Real Income in Sub-Saharan Africa" examines the role of financial development, including the adoption of real-time gross settlement systems, in enhancing economic efficiency in Sub-Saharan Africa. The study argued that RTGS systems facilitate faster and more efficient financial transactions, which can contribute positively to revenue growth by reducing transaction delays and improving liquidity management. A study by Ayadi et al. (2018) titled "Financial Inclusion, Financial Regulation and Financial Stability in Africa" explores the impact of financial inclusion measures, including the adoption of secure payment systems like RTGS, on financial stability and transparency. The study suggested that RTGS systems enhance the security and transparency of financial transactions, which are crucial for boosting revenue collection and improving financial governance in governmental settings.

However, according to a report by the European Central Bank (2020) on "The Payment Landscape in Europe," the implementation of RTGS systems can be challenging due to high initial setup costs and ongoing operational expenses. The European Central Bank (2020) report highlights that while RTGS systems offer benefits such as improved transaction speed and security, the associated costs may not always justify the expected revenue growth benefits, particularly in contexts with limited financial resources like Uasin Gishu County

government. Research by Beck et al. (2017) titled "Finance for Growth: Does a Balanced Financial Structure Matter?" examines the effectiveness of various financial infrastructure investments, including RTGS systems, in stimulating economic growth and revenue collection. Beck et al. (2017) suggested that while RTGS systems improve financial transaction efficiency, their direct impact on revenue growth in governmental settings may be limited without complementary reforms in tax administration and fiscal policy.

What are effects of electronic fund transfer on revenue growth of Uasin Gishu County government, Kenya?

Another variable that also had a unique significant contribution to the model was the value for electronic fund transfer ($B=.154$, $p=.000$). When other variables in the model are controlled (Cheque collections and M-Pesa collections), a unit increase in electronic fund transfer would result to significant increase in revenue growth of Uasin Gishu County government, Kenya by 0.154 units. Research by Hasan et al. (2020) titled "The Impact of Digital Payments on Government Revenue: Evidence from India" explores the effects of digital payment systems, including electronic fund transfers, on government revenue in India. Hasan et al. (2020) find that electronic fund transfers enhance the efficiency of revenue collection processes by reducing delays and leakages, thereby contributing positively to government revenue growth. A study by Mbiti and Weil (2019) titled "Mobile Money and Inequality: Evidence from Kenya" investigates the impact of mobile money services, including electronic fund transfers, on financial inclusion and economic outcomes in Kenya. Mbiti and Weil (2019) argue that electronic fund transfers improve access to financial services and facilitate more reliable revenue collection mechanisms, which can lead to increased government revenue through enhanced tax compliance and reduced informal sector activities.

Nevertheless, according to a report by the World Bank (2018) on "Digital Dividends," the adoption of

electronic fund transfer systems can face challenges related to infrastructure development, regulatory frameworks, and initial investment costs. The World Bank (2018) report highlights that while electronic fund transfers offer potential benefits in terms of efficiency, their impact on revenue growth may vary depending on the overall financial infrastructure and regulatory environment, with some regions experiencing limited returns on investment. Research by Demirguc-Kunt & Klapper (2017) titled "Digital Financial Inclusion: Implications for Government Policy and Regulation" examines the broader implications of digital financial services, including electronic fund transfers, on economic development and government revenue. Demirguc-Kunt & Klapper (2017) suggest that while electronic fund transfers can improve financial inclusion and transaction efficiency, their direct impact on government revenue growth may be influenced by factors such as economic structure, regulatory capacity, and user adoption rates, which can vary across different regions.

CONCLUSIONS AND RECOMMENDATIONS

The first objective sought to answer what are the effects of M-Pesa collections on revenue growth of Uasin Gishu County government, Kenya? The study concluded that M-Pesa collections has significant positive influence on the revenue growth of Uasin Gishu County government, Kenya. The study shows strong support for e-banking and M-banking in improving efficiency, minimizing leakages, and boosting revenue collections in Uasin Gishu County government activities. These results show how digital banking systems modernize financial transactions and improve government service delivery.

The second objective sought to answer what are the effects of cheque collections on revenue growth of Uasin Gishu County government, Kenya? The study concluded that cheque collections have significant positive influence on the revenue growth of Uasin Gishu County government, Kenya. Cheque collections in Uasin Gishu County government reduce cash reliance, streamline processes, improve

security, transparency, accuracy, record-keeping, and financial report credibility. These results support cheque-based transactions for efficient and reliable county government finances.

The third objective sought to answer what are the effects of real time gross settlement collections on revenue growth of Uasin Gishu County government, Kenya? The study concluded that real time gross settlement collections have significant positive influence on the revenue growth of Uasin Gishu County government, Kenya. RTGS and electronic transfer methods improve security and citizen satisfaction, although their efficacy in accelerating tax transfers is disputed. The aggregate mean score indicated good reaction to these digital payment alternatives, which might improve Uasin Gishu County government financial operations and service delivery.

The fourth objective sought to answer what are effects of electronic fund transfer on revenue growth of Uasin Gishu County government, Kenya? The study concluded that electronic fund transfer has significant positive influence on the revenue growth of Uasin Gishu County government, Kenya. The study shows that Uasin Gishu County administration sees current payment technology as improving efficiency, liquidity management, security, and transaction processing. While electronic payment systems and point-of-sale terminals are widely accepted, electronic cheque cost reductions are seen differently due to their financial effect.

Given the positive impact of M-Pesa on revenue growth, the study recommended County Government need to integrate M-Pesa collections into more aspects of revenue collection processes. This can include expanding the types of payments accepted via M-Pesa and ensuring seamless integration with existing e-banking systems. Increase efforts to educate and promote the use of M-Pesa and e-banking among residents and businesses within Uasin Gishu County. This can be achieved through workshops, training sessions, and informational campaigns aimed at increasing

awareness of the benefits and convenience of digital payment methods.

The county government should encourage ongoing utilization of cheque collections for revenue transactions within Uasin Gishu County government. This includes promoting the benefits of cheque-based payments among stakeholders and ensuring accessibility to cheque deposit and processing facilities. Establish comprehensive monitoring and audit procedures to track cheque transactions from deposit to clearance. This helps in detecting and preventing potential fraud or errors, thereby enhancing financial security and transparency.

The study recommended that County Government should strengthen partnerships with financial institutions to leverage their expertise in enhancing RTGS capabilities and supporting electronic payment initiatives. This collaboration can help in negotiating favorable terms, improving transaction reliability, and expanding service offerings.

The study recommended that the county governments should enhance the deployment of POS terminals to facilitate card payments for government services and fees. This initiative can accelerate revenue recognition, reduce reliance on cash transactions, and enhance convenience for citizens.

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Areas for Further Research

This study is a milestone for future research in this area due to its findings, particularly in Kenya with regards to adoption of cashless collection methods and its influence on revenue growth. The study provided an insight on the extent of use of different cashless collection methods in Uasin Gishu County government. The study variables were able to explain 67.6% of the variation in revenue growth. This indicates that apart from the four cashless collection methods, there are other variables, not included in the study model, that could possibly influence revenue growth, thus paving way for further research to be done in this area. Further study is therefore recommended on the other cashless collection methods as Electronic Cheque (E-cheque) Clearing and Online Payment Gateways.

This study expands knowledge on the influence of cashless collection methods on the revenue growth of Uasin Gishu County government, Kenya. Though the study has fulfilled its aim and objectives, and there are a few areas for additional studies and empirical research, given the limitations of the research. On a geographical dimension, this study was primarily limited to Uasin Gishu County government. However, there are other counties which this study did not cover but future studies could be undertaken to assess the influence of cashless collection methods on their revenue growth.

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