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Effect of Cashless Management on Revenue Collection Efficiency: A Case of Kisumu County Government, Kenya

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Abstract:

The purpose of this study was to investigate the effect of cashless management on revenue collection efficiency: A case of Kisumu County Government. The study aimed at determining the level of electronic point of sale on efficiency of revenue collection. Whether electronic point of sale enhanced easy payment of revenues and improved the revenue collection in the County, whether it enhanced transparency in service delivery. Revenue collection is a fundamental constituent of fiscal policy and administration in any economy. County Governments in Kenya experience a myriad of financial challenges, key among them being low revenues. The budget director's audit reports for fiscal years 2016/2017 and 2017/2018 showed that Kisumu County's revenue was significantly lower than target, especially due to revenue leakage. In addition, in the 2018/2019, its internal revenues fell below the budgeted figure for the same financial year. To counter these losses, the County Government embarked on a cashless payment system in revenue collection. This was to be achieved by computerizing the tax collection system from the Local Authority's Integrated Financial Operations Management System (LAIFORM) to the integrated Financial Management Information System (FMIS). The overall goal was to explore the impact of the cashless payment system and management on the efficiency of tax collection in Kisumu County. The research adopted Technology Adoption Model theory by Davis (1986) and Planned behavior theory by Ajzen (1991). A case study research design which is an intensive description and a holistic analysis of a bounded case was adopted. The study targeted all the 200 staff members from revenue departments at Kisumu County and sampled 60. Stratified sampling technique was utilized. The research utilized secondary and primary data. The primary data was acquired through opened and closed-ended questionnaires distributed among the sampled staff while secondary data was obtained from the County revenue Office financial records. The collected data were analyzed using descriptive statistics and inferential statistics. Descriptive statistics involved the use of mean, mode, standard deviation, frequency, and percentage. Pearson's correlation and ANOVA were utilized to show the relationship between the independent variable (cash management) and the dependent variable (efficiency in revenue collection). The qualitative data from the open-ended questionnaire were analyzed according to the goal setting theme and was presented in the form of tables, charts and graphs. The study findings revealed that use of electronic point of sale enhances easy payment of revenues, improved and increased efficiency of the revenue collection in the County and enhanced transparency in service delivery for customs authority. The study recommended it is essential to create awareness of the existence of the system, how it works, and its benefits among taxpayers to enhance its use and raise compliance level.

Keywords: Cashless management, revenue collection efficiency and county government

1. Introduction

As stated by Ataro *et al.*, (2016), collection of revenue is a vital source of income to the government. It authorizes the government to obtain resources that are not subject to obligations and that public authorities use to strengthen its economy (Ngotho & Kerongo, 2014). Basically, high performance in tax collection is imperative for improving the effectiveness of aid transfer and better county governance. However, researches and other published journals as noted by Balunywa (2014) have established that various governments encountered solemn challenges in performance while collecting revenue, where governments can't gather adequate funds to cover their budget assumptions. As per Makokha, Alala, Musiega and Manase (2014), the county economic growth, development and improved services rise up out of appropriate financial management and collection of revenue at the county level.

For a long time, tax collectors did not transfer all the cash they collected to the County Finance Bureau (Ngotho & Kerongo, 2014). The impact could prompt a greater loss, which would prevent country economic growth, development, and better service delivery (Mutakha, 2011; Namoit, 2012). To attain the financial goal of the county and payments

simplification, the Electronic Payment was acquainted to ensure no losses of revenue by the corrupt practices (Balunywa, 2014).

Electronic cash system allows purchase of goods or services without exchange with any tangible items. Previously, money was used for transactions. Electronic cash has nowadays become more acceptable since the world is shifting to a cashless purchase. Since 1960s, National, County Governments and other financial institutions have made steady steps towards electronic cash. A cashless purchase is more convenient method of payment. It prevents robbery of cash from individuals and/or money laundering. This also helps in evading crimes and cash stockpiling in homes by corrupt government officials (Ejoh, Adebisi & Okpa, 2014).

In most countries globally, regionally and locally, the Consolidated Income Fund acts as a national wallet for public income. Public Revenue is generally hypothesized in the context of tax reform that was initiated in 1990s by International Monetary Fund and World Bank. Some measures have been put in place aiming at strengthening and revamping tax collection and management, expanding tax base, enhancing voluntary compliance and addressing corruption-induced leakages. In most Countries, National Revenue collection is semi-autonomous since 1990 (Fjeldstad & Moore, 2008). These are: Reform Act and Internal Revenue Service Restructuring in USA, HM Revenue and Customs (HMRC) in United Kingdom, In South Africa, Revenue Service was founded in 2002 under Section 195 of the Constitution. In Kenya, National Revenue is collected by Kenya Revenue Authority (KRA). Recently, Kenya has adopted a devolution system (Prud'homme, 2003). In devolved governance, revenue is distributed between National and County Governments by Commission for Revenue Allocation (CRA). This commission distributes 34% to the County, 65.5% to the National Government and 0.5% to leveling fund for the deeply marginalized areas (CRA, 2013).

Previously, county revenue was gathered by local authorities. Nevertheless, with the formulation of the new constitution, the local authorities were merged into the County government. Thus, County Governments use structure of the Local Authority for collecting revenue which was ineffective. For accountability, Article 136(2) of the PFM Act 2012 expects counties to suspend previous bank accounts owned by Local Authorities. However, from first March 2013, the collected revenues were deposited at county revenue accounts. Moreover, the Counties were needed to introduce the computerized finance system in revenue gathering, expenditure tracking and budget monitoring (RoK, 2012).

The Kisumu County government relies heavily on revenue from property fees, which are a major source of local revenue, as well as fees for individual business permits, changes in customer fees, and parking fees. The County's Budget as per the Finance Act 2017/2018 was approximately Sh10 billion against Sh 6.62 billion allocated to the County by CRA as equitable share and national revenue to generate Sh 1.4 billion from local revenue sources and Kshs 747.84 million cash balance from FY 2016/2017.

Technology adoption included essentially in the Kisumu County Finance Bill (2018), amidst apportions indicated by the County to guarantee entire revenue is dispatched. A few measures involve: utilizing technology, for example, internet banking in gathering and checking money receipts notwithstanding the computerization of money receipts. Furthermore, layout procedures for building passage of all responsible reports within the data framework. Concerning collection of revenue of property, the bill anticipated the computerization in the proposal of building strategies.

1.1. Statement of the Problem

A sound revenue system establishes the rhythm for the effective of financial decentralization. It is the road for regulatory responsibility by vesting citizen (Bird, 2010). In Kenya, most counties encountered significant difficulties in collection of revenue since a lot of revenues stay uncollected leaving immense local revenue collection gaps (Owuor *et al.*, 2013); hence, the county is unlikely to spur economic development. As per Muema *et al.* (2014), e-payment administrations, for example, smart parking service, give accessibility in collection of revenue through utilization of gadgets like cell phones in the parking business, exceptionally improve collection of revenue and gain a competitive edge.

The Kisumu County government has various development opportunities, particularly in the areas of tourism, infrastructure, agriculture, health, and education. All county-level departments are facing financial challenges, resulting in poor project planning, implementation, monitoring, and evaluation, which have led to poor service delivery. Kenya's constitution gives the county government a light and fixed taxation obligation and has a path to growth, so it is over-reliant on the central government to fund most of its budget (SID, 2017). Keeping other issues like corruption and the transfer of funds from the central government to the county government constant, it is said that insufficient tax revenue at the county level is the reason for the lack of financial resources.

Public finance management (PFM) in Kenya has come under sharp criticism with strict constitutional requirements guiding. Constitution of Kenya, Article 201 was implemented on the requirement for productivity, responsibility, public investment, duty and lucidity in monetary revealing. At province level, PFM Act, 2012, requires region depository to uphold obligation standards in overseeing Public Finances. To date more than half of the County revenues are gathered through the cashless system.

The aim of these moves was to minimize revenue leaks and enhance efficiency in revenue collection in the County. However, audit reports in 2017/2018 and 2018/2019 uncovered that Kisumu County revenue fell essentially below the objectives at a yearly normal of 45% (Kisumu County Finance Department Strategic Plan 2018-2022). In spite of that, the County has set up the IFMIS and e-pay frameworks as per the necessities of the PFM Act 2012. Nonetheless, many studies have been done but none has been done to explore the effect of the cashless management on the gathering of revenue in Kisumu County Government. Therefore, this research intended to fill this gap in knowledge.

2. Literature Review

2.1. Technology Acceptance Model (TAM)

This model portrays the acknowledgment and utilization of a technology. Extensively, TAM hypothesizes states that intensity of utilization of an innovation by an individual can be clarified by impression of the handiness and demeanor concerning the innovation (Chau and Hu, 2001). The theory was advancement by Davis (1989) from that of Reasoned Action. This is perhaps the greatest cited research while examining determinants of MIS use (Fu, Chao and Farn, 2006). Figure 1 shows various components impact clients' choice on utilization (Bagozzi and Warshaw, 1989).

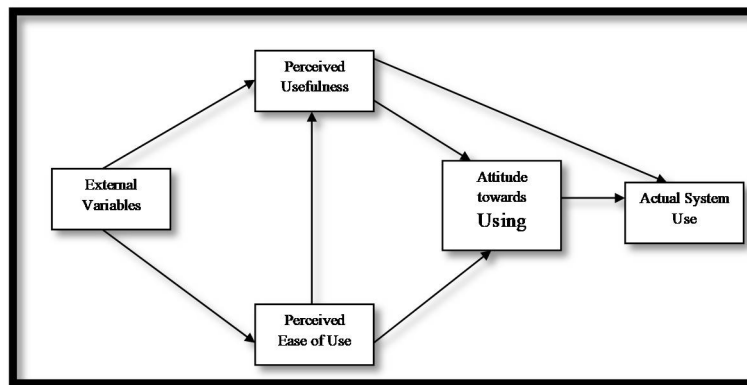


Figure 1: Technology Acceptance Model (TAM)

Source: Bagozzi & Warshaw (1989)

Venkatesh and Davis (2000) stretched out this model to incorporate different elements classified into two: (a) social impact measures (b) cognitive instrumental cycles. Model builds were estimated at: pre execution, one month and three months' post execution. Lord and He (2006) utilized TAM in measurable meta-examination of innovation acknowledgment utilizing 88 distributed investigations which created adequate and believable information. The outcome showed that TAM was legitimate, powerful and generally utilized, yet has possibly more extensive pertinence. The first TAM as indicated by Fu, *et. al.*, (2006) was created utilizing settings of MIS within organization limits.

Therefore, the theory of the technology acceptance model is very important for this research, because even if the employee does not welcome the information system, if he realizes that it can have an impact on his work performance, he will use it with a high probability. The theory was significant to the study since it helped in understanding the technology behind the use of cashless in collection of revenue.

2.2. Planned Behavior Theory (TPB)

The theory is developed by Ajzen in 1991. It estimates how human activities are directed. This theory envisages the presence of a specific behavior. It was created by joining of extra construct, of perceived conduct control from TAM (Ajzen, 1991). As indicated by this theory, singular conduct is clarified by his/her aim as impacted by perceived behavioral control, subjective norms and attitude (Chau & Hu, 2001).

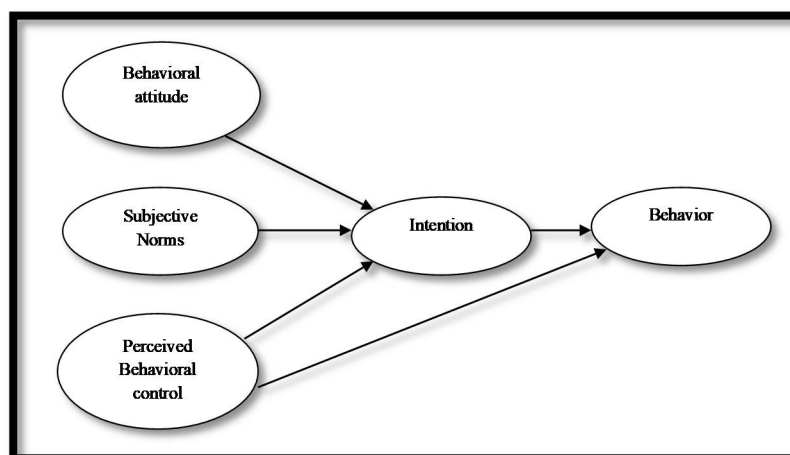


Figure 2: Theory of Planned Behavior

Source: Ajzen (1991)

The foundation's data on the use of MIS in Baringo County indicates that the technology has been effectively deployed and used. The degree of use could anyway be ascribed to the mentality of the clients towards innovation. This

theory, hence, assisted with conceptualizing clients' discernments as an expected causative factor in the selection of Revenue Collection Information System (RCMIS).

2.3. Empirical Literature Review

This outlined the preceding researches done in relationship to the present study. It also presented the study gaps. A study by Muhammad and Muhammad (2010) established the effect of ICT on the performance of organizations utilizing information gathered through interviews and field questionnaires of 48 assembling and 24 banking sectors in Pakistan between the years 1994 and 2005. The study used ratio analysis and multiple linear regression to test the correlation. The results established that ICT has a positive effect on the performance of the sampled organization.

Research by Uppal (2011) on ICT growth in banks in India uncovered that the development prompted high bank performance. Abubakar *et al.*, (2013) found out that the effect of ICT on the performance of banks in Nigeria over an eleven-year period (2001-2011) was significant.

According to World Bank (2012), the County Governments' increased control of the resources does not simply translate into service delivery. Efficiency in coordination and functions enhance performance. Public financial management institutional structure upholds transparency, predictability, responsibility and participation.

Review of related literature found that there are no explicit studies addressing impact of cashless revenue collection in public institutions. Research conducted by Muhammad & Muhammad (2010) looked at impact of ICT on organizational performance by focusing on the private sector alone. Abubakar *et al.*, (2013) focused on banks' performance in Nigeria. Uppal (2011) examined impact of ICT on growth of banks in India. None of these researches focused on revenue collection.

Studies have been done on ICT and corporate performance without focus on public institutions more so in efficiency of revenue collection. Further, there are very minimum studies that have been done in Kenya on public revenue collection efficiency and ICT. The current study aimed to fill in the gaps in the literature on the impact of the cashless tax system on Kisumu county government revenue performance by investigating income before the cashless tax system and after the introduction of the cashless tax system.

3. Research Methodology

According to Lewis (2015), a research method is a plan that describes procedures and methods to be utilized in collection of data and analysis of a given research subject and reveal results in a comprehensive manner. This study adopted a case study research design. This design was useful in providing original information and it permitted the researcher to gather a lot of data in some duration permitting a thorough explanation of the phenomenon under investigation. Oso and Onen (2005) noted that a case study is all-encompassing analysis of a solitary entity or a limited case. It utilizes smaller samples for in-depth investigation and is justified as being multi-modal, concrete and contextual. This study was designed to determine and document the county revenues before and after the introduction of the cashless revenue systems.

Kothari (2004) alludes that population is an obvious arrangement of administrations, individuals, components and occasions, gatherings of things or families that are being studied. The study targeted 200 employees in the revenue department at Kisumu County (KCRO, 2017). Table 3 presents the population targeted.

Category	Number	Percentage
ICT staff	11	5.5
Revenue supervisors	13	6.5
Revenue collectors	163	81.5
Licensing officers	13	6.5
Total	200	100.0

Table 1: Category of the Staff
Source, KCRO, 2017

3.1. Sample and Sampling Technique

Sampling techniques gave an extent of procedures that worked inside lessening the proportion of data that ought to be assembled by thinking about only data from a sub-bunch instead of every single imaginable case or component. The study used stratified sampling technique involving sub-groups and their proportions. Each sub-group forms a strata sample. This method ensured equitable representation of each stratum in the sample of the population because the target population was not uniform since it consisted of licensing officers, revenue collectors, revenue supervisors and ICT staff. A sample of 25-30% is significantly important to reach determinations for a specified report (Mugenda & Mugenda, 2003). The investigation in this manner sampled 60 participants from the population targeted which signified 30%. The distribution was as displayed in Table 2.

Category of Staff	Target Population	Rate	Sample Size
ICT staff	11	0.3	3
Revenue supervisors	13	0.3	4
Revenue collectors	163	0.3	49
Licensing officers	13	0.3	4
Total	200	0.3	60

Table 2: Sampled Population

Source: Researcher (2020)

3.2. Research Instruments

Primary data and secondary data were gathered. Primary data was gathered by utilizing the semi-structured questionnaire, planned to include both closed and open-ended questions addressing all research questions for all the staff dealing with collection of revenue in the county government. Secondary data was obtained from secondary sources such as financial records at the Kisumu County Revenue Office as well as from online sources.

3.3. Validity of the Questionnaire

Validity might be characterized as how well the aftereffect of an exploration can offer the correct response to the examination question. The validity was got to utilizing the construct validity strategy. This was accomplished from a board of specialists that knows about the building as it was a manner by which this sort of validity could be evaluated. Corrections to the survey were done appropriately. This guaranteed that the instruments for data gathering enabled comprehensive determination of the phenomenon that exists.

3.4. Reliability of the Questionnaire

Reliability is to the extent of how much assessment instruments yield unsurprising results after reiterated starters (Kothari, 2016). Cronbach's alpha was utilized to determine the internal consistency of items in the instrument to test its reliability and improve the unwavering quality of the factors generated by the addition of the scales. The Cronbach's alpha coefficient ranging somewhere between 0 and 1 was utilized. On the off chance that a coefficient of 0.7 and more was accomplished after calculations, the exploration instruments were considered reliable.

3.5. Data Collection Procedure

After issuance of research permit by the relevant authorities, the researcher then visited the Kisumu County Government Office to request for permission to administer the questionnaires to the participants and to obtain second-hand data. Adequate copies of questionnaires was printed and taken to the field for distribution where the researcher was personally involved in administering them to the respondents. The participants were given some time to go through the questionnaires and ask questions if any for clarification. The researcher, on the other hand, monitored the questionnaire filling and collected them upon completion within a period of five days.

3.6. Data Analysis

Prior to analyzing the responses, questionnaires completed were checked for consistency and completeness. Quantitative information gathered were examined by the utilization of illustrative insights through the guide of Statistical Package for Social Science (SPSS) (Version 23) and demonstrated by standard deviations, frequencies, means and percentages. The analyzed data was displayed by bar diagrams and pie charts. Content examination was utilized to introduce subjective information collected through the open ended inquiries. Inferential statistics were performed utilizing Pearson Correlation and Multiple linear regression investigation. The multiple regression equation is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y= County Revenue Collection Efficiency

β_0 = intercept coefficient

ε_i = error term (extraneous variables)

X_1 = Direct Bank Deposit

X_2 = Electronic Point of Sale

X_3 = E-Pay (Mobile Banking)

β_1 , β_2 , and β_3 = regression coefficients

3.7. Ethical Considerations

After receiving authorization and approval letters from Mount Kenya University, the researcher proceeded to the National Commission for Science and Technology (NACOSTI) and sought permission to conduct research in the study area. In addition, the researcher sought permission from the Kisumu County Government offices to be allowed access to collect primary and secondary data. The research participants were informed of the purpose of the study and its possible benefits before actual data collection. Informed consent was acquired from all who took part in this research. Those, who were not willing to take part in the research, were not forced to do so. For security reasons, the participant's name was not displayed anywhere in the data diversity widget. The respondents were guaranteed that the data accumulated might be

utilized for scholarly reason as it were. The vital examination specialists were consulted and authorization allowed. The referred to materials and sources were referred to likewise.

4. Findings and Discussions

4.1. Response Rate

The researcher dispersed 60 questionnaires to selected respondents. However, 58 questionnaires were duly filled and returned to the researcher. This gave a response rate of 96.7% which is deemed sufficient for the study. Mugenda and Mugenda (2008) contend that a response rate of 50% is acceptable for analysis; response rate of over half is good, while over 70% is very good. The response rate was, therefore, adequate for the study to make relevant conclusions based on the responses. The results were presented in Figure 3.

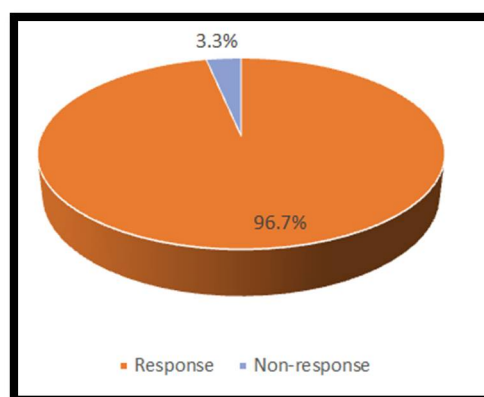


Figure 3: Response Rate
Source: Field Data (2022)

4.2. Demographic Information

The demographic information presented section included: gender, level of education, age, employment category and working experience of the respondents.

4.2.1. Gender of the Respondents

The participants were asked to indicate their respective gender. The results were displayed in Figure 4.

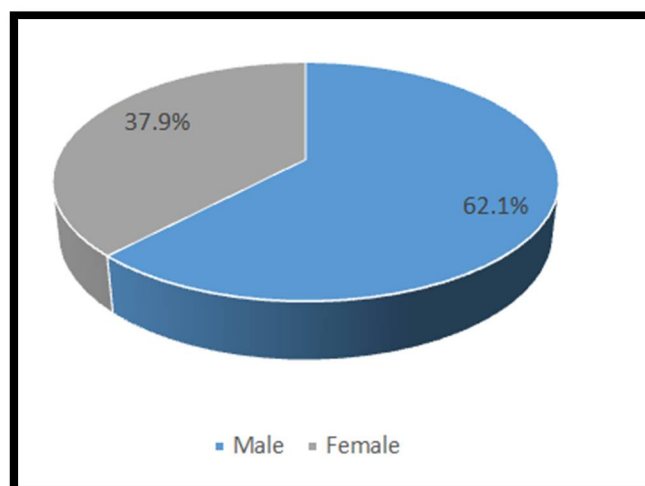


Figure 4: Gender of the Respondents
Source: Field Data (2022)

According to the findings in Figure 4, majority of the respondents were male as demonstrated by a proportion of 36 (62.1%). However, it was noted that female respondents constituted 22 (37.9%) of the respondents. These results indicated that there was a fair representation of both genders in this research hence no biasness.

4.2.2. Age of Respondents

The study sought to determine age distribution of the respondents since age of the participants is an indispensable factor in the study because it determines one's experience and way of reacting to situations. The findings were tabulated in Table 3.

Age	f	%
20 – 30 years	8	13.8
31 – 40 years	20	34.5
41 – 50 years	23	39.7
Above 50 years	7	12.1
Total	58	100

Table 3: Distribution of Respondents by Age

Source: Field Data (2022)

The findings in Table 3 show that 23 (39.7%) respondents were aged between 41–50 years, 20 (34.5%) respondents were aged between 31–40 years, 8 (13.8%) respondents were aged between 20–30 years, while 7 (12.1%) respondents were aged over 50 years. Hence, this explicitly implies that all the respondents based on the age distribution were in position to respond to the questions. This clearly indicates that employees working at Kenya revenue department in Kisumu County were largely represented by middle aged people.

4.2.3. Level of Education

The educational level achieved by the participants was significant as it is a gauge of their capability to comprehend the cashless management used by revenue authority and therefore be in a position to answer the questions appropriately. The findings were illustrated in Figure 5.

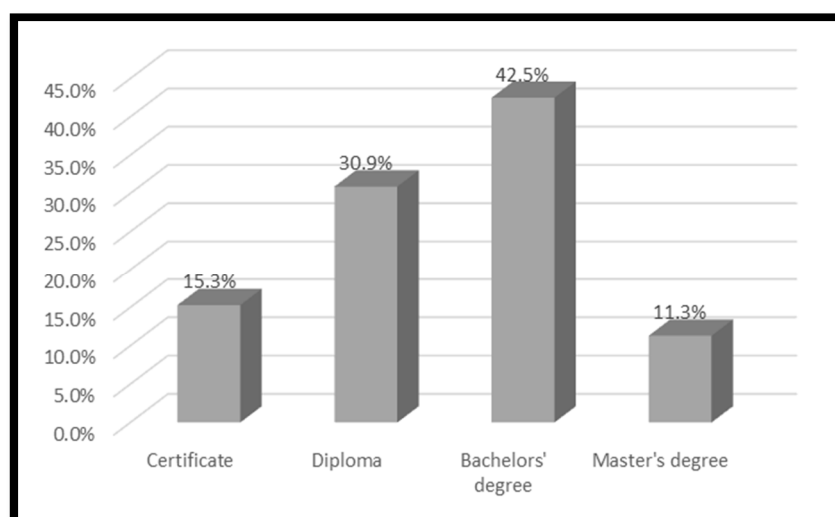


Figure 5: Level of Education

Source: Field Data (2022)

The research findings in Figure 5 revealed that majority of the participants had attained the first degree as their highest educational level at 42.5%, whereas the respondents with Master's degree as the highest educational level comprised the smallest proportion at 11.3%. However, 15.3% of the respondents had attained certificate and 30.9% had diploma. These findings imply that all the respondents had requisite level of literacy to understand the information sought by this exploration.

4.2.4. Working Position

The researcher sought to determine the employees' position in the department of revenue collection. The findings were presented in Figure 6.

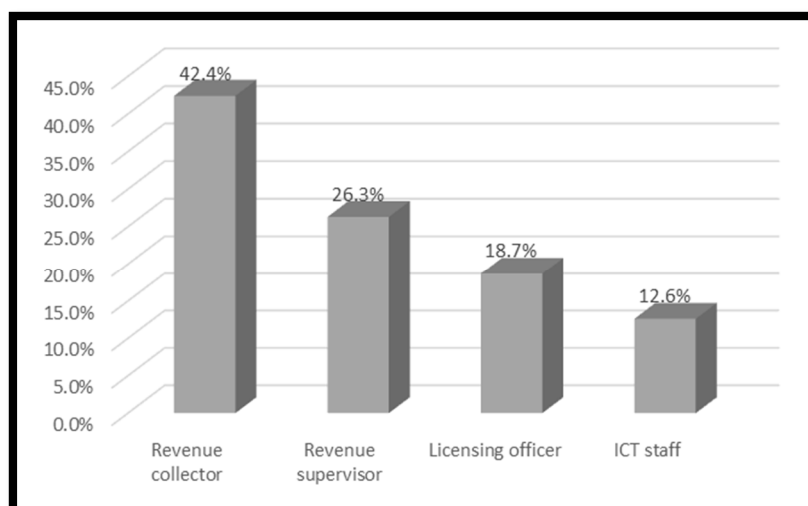


Figure 6: Employees Position
Source: Field Data (2022)

The study established that 42.4% of the respondents were revenue collectors, 26.3% were revenue supervisors, 18.7% were licensing officers, while 12.6% were ICT staff. The discoveries show that the research was not biased during collection of data and all employees involved in collection of revenue were included.

4.2.5. Work Experience

The researcher analysed the data collected on the work experience duration of the employees involved in the study as presented in Figure 7.

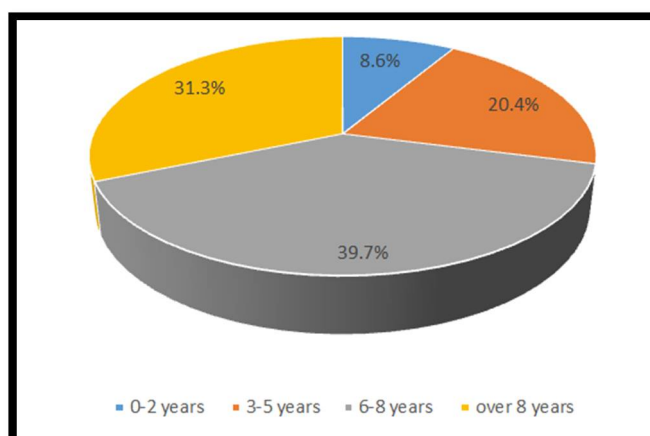


Figure 7: Analysis of Work Experience of Respondents
Source: Field Data (2022)

The results displayed in figure 7 illustrate that a majority of respondents had worked at Kenya revenue department in Kisumu County for a period between 6 and 8 years as presented by 39.7%. However, those, who had worked over 8 years, constituted 31.3%. In addition, 20.4% of the respondents had worked between 3 and 5 years, while 8.6% had worked for less than 3 years. These results confirm that the employees involved in this study had necessary experience to provide the information that was of interest to the study.

4.3. Descriptive Statistics

This study utilized mean, standard deviation and coefficient of variation to present the summary measures of the sample that was observed. Analysis of descriptive statistics was conducted on the basis of the data collected on the variables that were at the core of this study. The basic feature of the observed sample formed the basis for quantitative data analysis for this study.

4.4. Electronic Point of Sale and Efficiency in Revenue Collection

Several statements on effect of electronic point of sale on efficiency in revenue collection were identified by the researcher. Participants were asked to indicate the extent of their agreement with each statement in regard to electronic point of sale and how it has efficiency in revenue collection. A scale of 1-5, where 1= strongly disagree, 2= disagree, 3= neutral, 4 = Agree and 5 = strongly agree, was used. The results were displayed in Table 4.

Statements	n	Min	Max	Mean	Std Dev	CoV
Use of electronic point of sale enhances easy payment of revenues	58	1.00	5.00	3.61	0.65	0.15
E-POS has improved the revenue collection in the County	58	1.00	5.00	3.63	0.57	0.12
E-POS has enhanced transparency in service delivery for customs Authority	58	1.00	5.00	3.54	0.66	0.13
E-POS has increased efficiency in the collection of revenue	58	1.00	5.00	3.87	0.59	0.17
The system has eased transaction with customers	58	1.00	5.00	3.53	0.65	0.15
With the E-POS there is minimum evasion of clients	58	1.00	5.00	3.46	0.64	0.12
There is improvement in accountability in revenue collection	58	1.00	5.00	3.67	0.57	0.16
Average scores				3.62	0.62	0.14

Table 4: Descriptive Statistics for Electronic Point of Sale

Source: Field Data (2022)

The results presented in Table 4 established that majority of the respondents agreed that use of electronic point of sale enhances easy payment of revenues as supported by a mean of 3.61 with a standard deviation of 0.65. Respondents agreed that electronic point of sale has improved the revenue collection in the County as supported by a mean of 3.63 with a standard deviation of 0.57. The respondents agreed that electronic point of sale has enhanced transparency in service delivery for customs Authority as supported by a mean of 3.54 with a standard deviation of 0.66. The participants agreed that electronic point of sale has increased efficiency in the collection of revenue as supported by a mean of 3.87 and a standard deviation of 0.59. The findings are supported by the findings of research by Kinyanjui and Kahonge (2013) in their study on use of mobile based parking system on collection of parking fees in Singapore and Germany. The study established that there is efficiency since the introduction of system automation on revenue collection. Correct and updated tax records help in boosting the confidence of tax payers, a concern which is well taken care-off by the system automation. Also, respondents agreed that the system has eased transaction with customers as supported by a mean of 3.53 with a standard deviation of 0.65. The participants agreed that with the E-POS there is minimum evasion of clients as supported by a mean of 3.46 and a standard deviation of 0.64. Furthermore, the respondents agreed that there is improvement in accountability in revenue collection as supported by a mean of 3.67 and a standard deviation of 0.57. The findings of this research concur to the findings of a study by Ganderton (2010), who established that one advantage of electronic point of sale is its ability to help your business achieve detailed real-time stock level information. In addition, electronic point of sale system can also give you information such as weather forecasts, public holidays and major sporting events, which can be of great help in determining the stock level of seasonal products.

4.5. Efficiency of Revenue Collection

In view to efficiency of revenue collection in Kisumu County, respondents were asked to indicate their extent of agreement with each statement in regard to efficiency of revenue collection in Kisumu County. A scale of 1-5, where 1= strongly disagree, 2= disagree, 3= neutral, 4 = Agree and 5 = strongly agree, was used. The findings were shown in Table 5.

Statements	n	Min	Max	Mean	Std Dev	CoV
The cashless system has minimized the losses in revenues	58	1.00	5.00	3.93	0.65	0.12
With cashless system, it is easy to account for revenue collected	58	1.00	5.00	3.65	0.68	0.14
With the cashless revenue system, the amount of revenue collected on daily basis has improved	58	1.00	5.00	3.72	0.63	0.17
Average scores				3.76	0.65	0.14

Table 5: Descriptive Statistics for Efficiency of Revenue Collection

Source: Field Data (2022)

The findings presented in Table 5 established that majority of the respondents agreed that the cashless system has minimized the losses in revenues as supported by a mean of 3.93 with a standard deviation of 0.65. Respondents agreed that with cashless system it is easy to account for revenue collected as shown by a mean of 3.76 with a standard deviation of 0.67. The participants agreed that there is improvement of services due to introduction of online banking as supported by a mean of 3.65 with a standard deviation of 0.68. The respondents agreed that with the cashless revenue system the amount of revenue collected on daily basis has improved as supported by a mean of 3.72 with a standard deviation of 0.63. This agrees with findings of Kapera (2017) who established that the introduction of e-payment has enhanced the collection of revenue in Kinondoni Municipal. The period after the implementation of e-payment saw major

tax compliance, enhancement of monitoring revenue sources, and improvement of the quality of reporting financial information: all of which, in turn, increased revenue collection levels. Hence, use of e-payment will definitely improve the levels of revenue collection.

4.6. Inferential Statistics

The researcher conducted regression analysis to establish the effect of cashless management on revenue collection efficiency in Kisumu County Government, Kenya. The findings of Model Summary, ANOVA and Regression coefficients are shown in subsequent sections.

4.6.1. Model Summary

The findings of coefficient of correlation R and coefficient of adjusted determination R^2 are shown in Table 6.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.904	0.817	0.823	0.152

Table 6: Model Summary

a. Predictors: (Constant), Electronic Point of Sale

b. Dependent Variable: Revenue Collection Efficiency

Source: Field Data (2022)

The results established that coefficient of correlation R was 0.918 which is an indication of strong correlation with the variables. The findings also established that coefficient of adjusted R^2 was 0.817 which translates to 81.7%. This explains that 81.7% changes of revenue collection efficiency can explain the following variables: electronic point of sale, direct bank deposits and e-pay system. The residual of 18.3% can be explained by other factors beyond the scope of the current study.

4.6.2. ANOVA

An ANOVA was conducted at 95% level of significant; the findings of F Calculated and F Critical are shown in Table 7.

Model	SS	df	MS	F	Significance
Regression	4.17	4	.321	3.32	0.001 ^a
Residual	49.32	54	1.154		
Total	54.19	58			

Table 7: ANOVA

a. Predictors: (Constant), Electronic Point of Sale, Direct Bank Deposits, E-Pay System

b. Dependent Variable: Revenue Collection Efficiency

Source: Field Data (2022)

The results in Table 7 show that $F_{\text{Calculated}}$ was 3.32 and F_{Critical} was 2.15. $F_{\text{Calculated}} > F_{\text{Critical}}$ is an indication that the overall regression model was significant for the study. The study established that the p value was 0.00 which is less than 0.05 which is an indication that at least one variable significantly influenced revenue collection efficiency.

4.7. Regression Coefficients

In order to establish the individual influence of independent variables on dependent variables, the researcher conducted regression analysis. The findings are shown in Table 8.

Multiple Regression Analysis					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error			
(Constant)	5.623	0.153		1.257	.001
Electronic point of sale	0.367	0.0152	0.124	1.315	.002

Table 8: Regression Coefficients

Source: Field Data (2022)

The researcher carried out a multiple regression analysis in order to determine the relationship between cashless management and revenue collection efficiency in Kisumu County, Kenya. As per the SPSS generated table, the equation ($Y = \beta_0 + \beta_1 X_1 + \epsilon$) becomes:

$$Y = 5.623 + 0.367 X_1$$

Where,

Y = Revenue Collection efficiency

X_1 = Electronic point of sale

Table 8 shows that electronic point of sale had a positive significant coefficient ($\beta=0.345$, P-value = 0.001) which means that electronic point of sale contributes positively to the revenue collection efficiency. With regards to the relationship between cashless management system and revenue collection, the study revealed that cashless management system (electronic point of sale) had a positive impact on revenue collection. The findings are supported by Chatama (2013), who argued that using electronic pay in revenue collection has enabled to curb tax cheating, ease tax assessment, and enforce penalties, among other things.

5. Conclusion and Recommendation

From the study it can be concluded that the presence of electronic point of sale, credit/debit cards, mobile money and online banking have made revenue collection services more plausible to tax payers. The study recommended that there is a need to train tax collectors and taxpayers on uses of e-payment system. This is important because e-payment is the crucial tool in achieving better performance of revenue collection in Kisumu County.

6. Suggestions for Further Study

A comparable research can be conducted in other counties in Kenya to ascertain if consistent results can be achieved. In addition, further research should be carried out on factors influencing the adoption of cashless payments in other government sectors in Kenya.

7. References

- i. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes*, 50(2): 179-211.
- ii. Ataro, P. O., Muturi, D. W., & Wamalwa, M. R. (2016). Factors affecting revenue collection efficiency in county governments in Kenya: A case study of Trans-Nzoia
- iii. Bagozzi, R. & Warshaw, P (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35 (8), 982-1003.
- iv. Bird, R. (2010). Subnational taxation in developing countries: A review of the literature. *Policy Research Working Paper 5450*. World Bank: Washington, DC.
- v. Chau, P.K., & Hu, P.J. (2001). Information technology acceptance by individual professionals: A model comparison approach. *Decision Sciences*, 32(4), 699-719.
- vi. Davis, F. (1989). Perceived usefulness, Perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339.
- vii. Fjeldstad, O., and Moore, M. (2008). *Revenue authorities and state capacity in Anglophone Africa*, CMI: Bergen.
- viii. Fu, J., Farn, C., & Chao, P. (2006). Acceptance of electronic tax filing: A study of Taxpayers' Intentions. *Information and Management*, 43, 109-126.
- ix. Kothari, C.R. (2016). *Research methodology: Methods and techniques*, 2nd ed. New Age International (P) Ltd.
- x. Makokha, S. W. A., Alala, O., Musiega, D. & Manase, G. W. (2014). Determinants of revenue collection Maximization among county Governments: A case of Kakamega
- xi. Muema, J. K, Kyambo. B., Kirichu, C. & Senagi, K. (2014). Assessment of the adoption of mobile parking management system in the parking Industry in Nairobi County: A Case of Lulu East Africa. *International Journal of Computer Applications Technology and Research*, 3(10), 617-625.
- xii. Mugenda, A., & Mugenda, O. (2003). *Research methods: Quantitative & qualitative approaches*. Nairobi: African Center for Technology Studies.
- xiii. Oso, W. & Onen, D. (2005). A guide to writing research proposal and report.
- xiv. Owuor, O. F., Chepkuto, P., Tubey, R. & Kuto, L. Y. (2013). Effectiveness of monitoring and evaluation of CDF projects in Kenya. A case of Ainamoi Constituency. *International Journal of Arts and Commerce*, 1(6), 186-194.
- xv. Prud'homme, R. (2003). Fiscal decentralization in Africa: A framework for considering reform. *Publication Administration and Development*. 23, 17 - 27.
- xvi. SID. (2017, March). DevolutionPolicyWorkingPaperwithinlayout.pdf. Retrieved from <https://www.kiambu.go.ke/images/docs/public-notice-and-announcements/4-3-2015-Final-KIAMBU-COUNTYSTRATEGY-PAPER.pdf> (Accessed: 15 May 2016).
- xvii. World Bank (2012). *World development indicators*. Washington, D.C.: World Bank Publications.
- xviii. RoK (2012). *Public finance management Act 2012*. Nairobi: Government Printer