Effect of Integrated Financial Management Information System on Revenue Collection in County Governments in Kenya: The Case of Nairobi County.

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ABSTRACT: The devolved governments were established with the expectation that County Governments would collect their own Revenue and as such reduce dependency on the central Government to meet their recurrent and development needs. Records show that Nairobi County is the richest County with a Gross Domestic Product (GDP) of 27.5%. Despite this, revenue collection in Nairobi County has been minimal such that to get sufficient funds to meet expenditure like salaries and many others has been a concern. Consequently, this study sought to investigate the effect of integrated financial system on revenue collection at Nairobi County, Kenya. Further, explanatory survey research design was adopted and the population of the study comprised of the 150 management staffers working at Nairobi County and who directly used IFMIS in the management of funds. Consequently, simple random sampling procedure was used to access 107 staff from Nairobi County. Secondary data to access data on revenue collection in Nairobi County augmented by primary data from questionnaires were collected from the respondents and those instruments were computed through the Cronbach Coefficient Alpha formula to test their reliability and the piloted results show an acceptable reliability index for all variables that are α>0.7. On the other hand, experts from JKUAT determined the validity of the instruments by examining the content of the instruments and consequently advised the researcher appropriately. Quantitative data was analyzed using descriptive analysis in form of percentages, frequencies and means while inferential statistics in the form of Pearson’s correlations and linear regression were done to test the hypotheses. The study found that while the county had a clear budgeting policy through IFMIS, the policy was only on paper and not effectively implemented which had negatively affected revenue collection at Nairobi City County. Also, ineffective internal control and records management done through IFMIS has a negative effect on revenue collection in Nairobi County Government. However, financial reporting via IFMIS has had a positive effect on revenue collection as in Nairobi County. The study thus recommends that the County Government of Nairobi in conjunction with National Treasury should initiate a robust review of the IFMIS system to ensure that it is improved if it is to meet the budgeting, internal control, financial reporting and records management requirements for effective revenue collection.

Key Words: IFMIS, Revenue Collection, Internal Control, Records Management, Budgeting, Financial Reporting

I.0 INTRODUCTION

1.1 Background of the Study
An appropriately structured, operationalized and fluid revenue collection system is vital for the attainment of financial viability and growth (Ajayi & Omirin, 2017). Consequently, a functional and well-built revenue collection system becomes a valuable asset that allows departmental leaders to effectively raise, manage and expend financial resources that permits the expansion of the living standards of citizens (Osano & Ngugi, 2018). Studies have correctly advanced the argument that to eventually achieve a well-structured, operationalized and fluid revenue collection system, public financial reforms and its associated principles must be formulated, implemented and monitored (Asselin & Srivastava, 2016).
Studies done across the globe show that many countries in their developmental stages were prone to using manual financial systems accompanied by poorly maintained accounting systems (Jeong & Oh, 2019; Taylor & Fleming, 2019). The use of these outdated financial systems created significant gaps and challenges in the execution of public financial management systems which destabilized revenue collection outcomes (Taylor & Fleming, 2019). As a consequence, implementation of poorly managed and manual systems largely led to lapses in the control of financial resources, lack of sufficient financial resources, increased avenues for embezzlement of funds, high interest rates, poor service delivery and ultimately the collapse of the economic status of cities and even countries (Mosteanu & Faccia, 2020). In fact, western countries like Australia and Britain, in realization of the need for public financial transformation, delved into far-reaching reforms in a bid to expand their revenue collection. One of the key reforms was the discarding of outdated, dysfunctional and bureaucratic models of public financial management systems (La Torre et al., 2020). The reforms were mainly characterized by the adoption of information communication technology (ICT) and the internet and this shifted their poorly managed public finance systems to efficient, timely, reliable, secure and easily audited formats (Carabello, 2017). The adoption of creative and innovative financial management methods and techniques by these western nations, as correctly noted by Wafula and Wanjohi (2016), enabled for the effective and efficient organization and exploitation of financial, technological, and human resources. Reports on the implementation of financial management systems based on ICT by The World Bank (2018) have emphasized that the main objective of such systems was to achieve optimal acquisition and ensuing distribution of financial resources in a timely, effective, secure, and efficient manner.

The case in Africa mostly shows significant lapses in revenue collection endeavors as a result of ineffective financial management systems. Muwema and Phiri (2020) in a study to examine public financial systems in Zambia observed that the poor service delivery, misaligned and sometimes misappropriated financial resources and weak administration of financial resources is largely attributable to weak and dysfunctional financial control, budgeting, reporting and purchasing systems. Similar outcomes are noticed in countries like South Africa (Hendricks, 2018); Malawi (Lundu & Shale, 2015) Nigeria and Ghana (Peterson, 2019). These poor revenue collection results have thus led many African countries to investigate and insert massive financial resources into acquiring and implementing technology-run financial systems. They have done this to also partake of the public financial management efficiency, safety, timeliness, effectiveness, precision, governance, accountability and comprehensibility afforded by technology-based financial management systems (Lundu & Shale, 2015; Muwema & Phiri, 2020; Peterson, 2019).

Kenya has been on the forefront in adopting technology in its public financial reform agenda. The reforms towards adopting technology and improving the way financial management is done within public entities began in 2013 (Njeru, 2016). One of the key reforms was the enacting of the Financial Management Act of 2014 which sought to among other things; create opportunities and procedures for optimal financial accountability, utilization and management (Government financial management Act, 2014; Micheni, 2017). Further, the reforms were focused on improvements in financial planning, revenue mobilization, personnel remuneration and financial systems implementation. Micheni (2017) noted that these financial reforms were hugely meant to enhance transparency in the payment procedures used by government and its agencies. They were also to help curb fraudulent activities coupled with uneconomical purchases (Ajayi & Omirin, 2017;
Micheni, 2017). One other reform thus became the formulation and consequent implementation of the integrated financial management information system (IFMIS).

The integrated financial management information system is presently an integral part of public finance management (Muhamud & Nalwoga, 2019). The system is implemented with the purpose of connecting all departments in public institutions into a network that would drive all financial outcomes. In that case, revenue collection as a key financial outcome in public entities requires an effective implementation of IFMIS (Njau & Kinoti, 2020). This public financial system thus offers opportunities to managers to plan and regulate public funds collected from the citizens (Muhamud & Nalwoga, 2019). Consequently, IFMIS bears as significant responsibility in offering proper revenue collection in a manner that improve sufficiency, management and evaluation (Laudon & Laudon, 2016).

Furthermore, the integrated financial management information system is now instrumental in exercising a new approach in revenue collection. Further, IFMIS as used within the county levels of government has helped to improve accuracy and timeliness of financial reporting, firmness and efficiency in financial control and built a system of financial recording that when used effectively may help improve revenue collection (Nkoirishise, 2018). Further, the integrated financial management information system as used by County treasuries has made it possible for government officials to meet the terms of the rules and procedures of revenue collection and thus helped in reducing the risk of mismanagement of public funds (Nkoirishise, 2018). For ease of decision making, the county government therefore is able to use IFMIS to consolidate all the information needed into one information database (Nyamboki, 2019).

1.2 Statement of the Problem

Kenya’s National Statistics office (2019) gave the first report on each county’s share of Kenya’s GDP. Nairobi was noted as the richest county with the highest contribution to the national GDP at 21.7% with Nakuru following at a distant second at 6.1%. This means that Nairobi plays a pivotal role in the economic development and growth of Kenya; a country whose GDP growth currently stands at 6.1% but expected to go down in 2022 to 4.9% (KHDS, 2022). Further, based on the Revenue and Expenditure Report as at 30th 2021, Nairobi County received 29.6 Billion Kenya Shillings which combined local collections with government disbursements and appropriations. However, the County spent 30.1 Billion Kenya Shillings with certain concerns from the Auditor General (2022) concerning lack of approvals to justify the difference between expenditure and income. Thus, it is clear that the county spends more than it raises thus raising concerns about the effectiveness of revenue collection in the county. It thus a serious issue to note that the revenue collected from Nairobi county has continuously failed to meet collection targets and in many cases, that revenue collected has been dwindling. In 2021 for instance, the county collected 8.5 billion which only represented 45% of the targeted collection of 17.3 billion. The 8.5 billion shillings was lower than the 10.2 billion collected in the financial year 2019-2020 and way lower than the 11.8 billion collected in the financial year 2015-2016 (Kenya Revenue Authority, 2021). This means that revenue collection in Nairobi is a key concern and solutions have been crafted that include the use of Geographic Information Systems (GIS) and effective implementation of IFMIS. From the foregoing, it is clear that Nairobi county has been unable to collect revenue that meets its target and in some cases, the county has spent more than it has collected. This is the status despite the presence of IFMIS which is meant to streamline, among other things, revenue collection.
Consequently, it becomes necessary to establish the effect of IFMIS on revenue collection in Nairobi County. More poignantly, this investigation must be done because if Nairobi continues to collect less revenue, the GDP of the whole country will undoubtedly suffer.

Global, regional and local, studies have been done on IFMIS in the public sector realm. Jeong and Oh (2019) observed significant challenges that underlie the e-government system key of which was the disconnect between exchequer budget release of funds and manual funds release. Mosteanu and Faccia (2020) showed a strong and positive correlation between e-government and public financial management, but the study did not explain or describe the manner in which IFMIS contributed to public financial management and particularly revenue collection. Similar studies done in Africa (Lundu & Shale, 2015; Muwema & Phiri, 2020; Peterson, 2019) show that IFMIS or associated technology-based financial systems have the potential to drive positive financial management. These studies do not however link IFMIS to revenue collection which is a gap that the current study hopes to fill. Locally, Micheni (2017) noted that one such success factor is the training and skills development of IFMIS users which helped enhance financial management. One study by Nyamboki (2019) found significant improvement in both public financial management and service delivery in government ministries in Kenya. Again, this study did not reveal the relationship between IFMIS and revenue collection. Other studies done in Kenya (Ogachi & Muturi, 2015; Nkoirishishe, 2018; Ochudho & Ngaba, 2020) have also failed to outline specific revenue collection benefits that would be realized when adopting the IFMIS system.

1.3 Objectives of the Study
1.3.1 General Objective of the Study
The study sought to establish the effect of integrated financial system on revenue collection at Nairobi County, Kenya.

1.3.2 Specific Objectives of the Study
1. To establish the effect of budgeting enacted by IFMIS on revenue collection at Nairobi County, Kenya.
2. To evaluate the effect of internal control enacted by IFMIS on revenue collection at Nairobi County, Kenya.
3. To determine the effect of financial reporting enacted by IFMIS on revenue collection at Nairobi County, Kenya.
4. To find out the effect of record management enacted by IFMIS on revenue collection at Nairobi County, Kenya.

2.0 LITERATURE REVIEW
2.1 Theoretical Framework
The interaction between the integrated financial management information system and revenue collection in the county governments was investigated using three hypotheses. They are agency theory, systems theory, and the technology acceptance model.

2.1.1 Technology Acceptance Model
The Technology Acceptance Model (TAM), developed by (Davis, 1989), explains how people within organizations accept and adopt new technological systems. TAM relies on two critical components: perceived usefulness (the extent to which users believe a system meets its goals) and perceived ease of use (how user-friendly a system is). These factors significantly shape users’ attitudes toward technology. If perceived usefulness and ease of use are positive, technology adoption and usage increase. Cultural, physical, social,
political, and environmental factors also influence these components. For IFMIS (Integrated Financial Management Information System), its effectiveness depends on user acceptance, influenced by these factors. Negative perceptions can hinder its success in financial reporting, budget control, and financial management (Chutter, 2016).

2.1.2 Systems Theory
Ludwig Von Bertalanfy is credited with pioneering systems theory, which asserts that complex systems have interconnected and synergistic properties. In organizations, it highlights how different departments and hierarchies must collaborate to achieve collective goals. Systems theory emphasizes the need for seamless interactions among system components and the adoption of internal and external inputs for success. Effective organizations integrate their parts meaningfully, and a failure in one component can jeopardize the whole system. Sustainable organizations incorporate Information and Communication Technology (ICT) to enhance accountability and transparency in financial management. However, a study found a lack of synergy and interconnectedness in implementing the Integrated Financial Management Information System (IFMIS), contrary to systems theory’s principles, which ideally should lead to improved revenue collection.

2.1.3 Agency Theory
The basic premise of agency theory is that the principal in any organization, in this case the citizen, cannot trust the acting agent, in this case the civil servant, to act in the best interest of the principal but only to their own interest (Steger & Amann, 2018). One thing that the principal is sure about the agent is that the agent is more capable to handle the situation due to the agent’s information asymmetry and the supervision of the agent by the principal would cause the principal to inadvertently incur agency costs. The theory thus argues that an economic agent or a utility-maximizing agent may take actions which are congruent with the principal’s interest. However, in other cases, the agents may act contrary to the principal’s interest like overpaying their salaries, engaging in corruption acts or using available resources inexpertly (Mishra et al., 2018).

The Organization of Economic Cooperation and Development (2014) observes that the impetus to and advocating for financial reforms that entrenches transparency and governance is in a bid to get the agent to act in the best interest of the principal. According to Dong et al. (2021), an agency relationship manifests when that agent is acting on behalf of another and is also a contract where the agent is asked to act on the principal’s behalf and thus involved the delegation of key decision making to the agent. Agency theory thus asserts that the agency-principal relationship is deemed to happen because: (a) the goals of the principal and the agent are often incongruent and misaligned with one another (“goal incongruence”) and (b) the principal cannot flawlessly and without any cost monitor the proceedings and information associated with agent (information asymmetries) (Dong et al., 2020). And given that agents are typically better informed as compared to their principals regarding the tasks at hand, institutions would do better if the entire information could be disseminated at zero cost, or where there is no deviation between the goals of the principals and the agents. The economic loss associated with the dearth of such optimal conditions is referred to as the agency costs (Mio et al., 2020).

Agency theory is applied in the present study because there exists a principal-agent relationship where the principal (citizen) is meant to be served and protected by the agent using the IFMIS. In the event the agent misuses IFMIS for his/her own benefit, negative agency costs is bound to accrue to the principal. However, if
the agent acts to the best interest of the principal who has delegated decision making to the agent, then the economic returns that accrue out of the IFMIS service is deemed to be potentially positive. In this case, the economic benefit is increased revenue collection. The results show that IFMIS does not have a significant positive effect on revenue collection and this implies that the principal (citizen) is not being protected by the agent (county government) thus upending proper agency theory.
2.2 Conceptual Framework

Independent variables
IFMIS

**Budgeting**
- i. Budget planning
- ii. Budget allocation
- iii. Reliable budgets

**Financial Control**
- i. Control planning
- ii. Tracking
- iii. Rules and regulations

**Financial Reporting**
- i. Accurate information
- ii. Reliable information
- iii. Timely information

**Record Management**
- i. Supervision of records
- ii. Administration of records
- iii. Reliable records

Dependent variable

**Revenue Collection**
- i. Total Net Revenue
- ii. Compliance in Debt settlement
- iii. Timeliness of revenue Collection

Figure 1: Conceptual Framework

3.0 RESEARCH METHODOLOGY

3.1 Research Design

In this particular study, explanatory survey research design was adopted so as to be able to elicit the findings with regards to the objectives of the study. According to Sloman (2010), explanatory research design involves examining variables to try and ascertain their causal value. Churchill and Brown (2017) also state that
explanatory research design involves determining the cause and effect of something occurring. Explanatory research design was therefore adopted because of its suitability for this type of research. This involved the use of questionnaires with both closed and open-ended questions for the purpose of gathering and clarification of interpreted information. The research design was best suited for the study as it sought to investigate the effect of IFMIS on revenue collection at Nairobi County, Kenya.

3.2 Target Population and Sampling Procedure

The population of the study comprised of the 150 top management and middle management staffers working at Nairobi County and who directly use IFMIS in the management of funds. The targeted population all worked as IFMIS technical personnel or managed the IFMIS space within the procurement, finance, accounts, IT and Audit departments. The sample size was selected from the 150 top management and middle management staffers working at Nairobi County and who directly use IFMIS in the management of funds. Consequently, The Yamane, (1967), formula to calculate and access a credible sample size from the public hospital population was utilized:

\[ n = \frac{N}{1+Ne^2} \]

Where,

- \( n \) is size of sample
- \( N \) is population of sample
- \( e^2 \) is probability of error

Therefore, the sample size for the employees in this study was:

\[ n = \frac{150}{1+150(0.05)^2} \]

\[ n = 107 \text{ staff} \]

Consequently, 107 top management and middle management staffers working at Nairobi County and who directly use IFMIS in the management of funds were sampled from the departments aforementioned.

3.3 Data Collection Instruments

Data collection instrument is a device used to collect data in an objective and a systematic manner for the purpose of the research, data collection instruments can be questionnaires, interviews, schedules and available records (Cooper and Schindler, 2018). In this study, Documentary checklist was the main data collection instruments. Documentary checklist is preferred because they are effective data collection instruments that allow the collection of secondary data, in this case revenue collection data, financial reports, records and internal control reports that are aligned to the research question. The research also used questionnaires in Likert Scale to provide room for the respondents to indicate the degree to which they agree/disagree with
various statements. Section A of the questionnaire dealt with the general information of the respondents while section B, C and D focus on the study’s variables.

3.4 Data Analysis and Presentation
Quantitative data was analyzed using descriptive analysis in form of percentages, frequencies and means. Data analyzed descriptively was presented in tables, graphs and charts because they are visual and gives a systematic record of analysis in an easy to understand format. The Social Package for Statistical science (SPSS) software version 20 aided in data analysis. Inferential statistics in the form of Pearson’s correlations and linear regression were done to test the hypotheses.

3.5 Regression model

\[ Y = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \epsilon \]  

Equation 3.1

Where:  
Y represents revenue collection  
\( \chi_1 \) represents budgeting  
\( \chi_2 \) represents internal control  
\( \chi_3 \) represents financial reporting  
\( \chi_4 \) represents record management  
\( \beta_0 \) represents the constant  
\( \beta_1-n \) represents the regression coefficient or change included in Y by each \( \chi \).  
\( \epsilon \) represents error term

4.0 RESULTS AND DISCUSSION

4.1 Secondary Data for Revenue Collection in Nairobi County

The study relied on the Revenue and expenditure Report for June 2021 and June 2022 as presented and approved at the National Assembly within those years to get the bona fide data on the revenue collection by Nairobi City County. The Summarized Results are presented in Table 1 Below:

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>15,497</td>
<td>65.63%</td>
<td>17,155</td>
<td>49.68%</td>
<td>16,459</td>
<td>60.40%</td>
<td>19,611</td>
<td>47.10%</td>
</tr>
<tr>
<td>Actual</td>
<td>10,172</td>
<td></td>
<td>8,523</td>
<td></td>
<td>9,941</td>
<td></td>
<td>10,374</td>
<td></td>
</tr>
<tr>
<td>Deviation from Budgeted</td>
<td>5,325</td>
<td>34.37%</td>
<td>8,632</td>
<td>50.32%</td>
<td>6,518</td>
<td>30.60%</td>
<td>10,374</td>
<td>52.90%</td>
</tr>
</tbody>
</table>

Source: Nairobi City County Revenue and expenditure Report for June 2019 to June 2022

The results in Table 1 shows own source revenue in millions of shillings collected by the Nairobi county between financial year 2018/2019 to 2021/2022. It further shows the performance against annual target. The own source funds collected in 2018/2019 was 10.1 billion with an underperformance percentage of 34.37%, revenue collected in 2019/2020 was 8.5 billion with an underperforming percentage of 50.32%. In the year
2020/2021 revenue collected was 9,941 with a percentage underperformance of 30.60. The own source revenue comprises of rates, parking fees, single business permits, building permits, rent, food and fire handling certificates, liquor fees and market fees. Comparing the target performance and actual performance revenue collection at the Nairobi City County has been underperforming. This result agrees with literature that shows that revenue collection in Nairobi has been dwindling despite the presence of technology-based tools to enhance effectiveness of collection like IFMIS (Simpson et al., 2020; Ochudho & Ngaba, 2020).

4.2 Descriptive Statistics
The descriptive statistics show results related to the independent variables (Budgeting, internal control, financial reporting and records management) and how the dependent variable (Revenue Collection) is affected.

4.2.1 Budgeting and Revenue Collection
Table 2: Budgeting and Revenue Collection

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The county has a clear budgeting policy through IFMIS that helps in</td>
<td>4.33</td>
<td>2.568</td>
</tr>
<tr>
<td>collection of revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The county utilizes the budget through IFMIS adequately which has helped</td>
<td>2.09</td>
<td>1.908</td>
</tr>
<tr>
<td>improve revenue collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The budgeting planning through IFMIS is reviewed periodically which has</td>
<td>2.22</td>
<td>1.887</td>
</tr>
<tr>
<td>helped improve revenue collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally, the budgeting planning through IFMIS is effective which has</td>
<td>2.56</td>
<td>1.912</td>
</tr>
<tr>
<td>helped improve revenue collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2.821</td>
<td>2.068</td>
</tr>
</tbody>
</table>

The results from Table 2 shows that the county had a clear budgeting policy through IFMIS that helped in collection of revenue (M=4.33, SD=2.568). However, the county did not effectively utilize the budget through IFMIS adequately which had then not helped improve revenue collection (M=2.09, SD=1.908); the budgeting planning through IFMIS was also not reviewed periodically which had then not helped improve revenue collection (M=2.22, SD=1.887). Generally, therefore, budget planning through IFMIS was not effective in improving revenue collection (M=2.56, SD=1.912). From the analysis, what is clear is that while the county had a clear budgeting policy through IFMIS, the policy was only on paper and not effectively implemented which had negatively affected revenue collection at Nairobi City County. The results here disagree with studies like that of Njeru (2016) who made an assessment of the integrated financial management system and how it has affected the public finance management cycle in Kenya and observed that the integrated financial management system is useful in controlling, reporting, recording and budgeting of all government funds. Similar sentiments are shared by others scholars on the issue of integrated financial management system in Kenya (Ogachi&Muturi, 2015; Njau&Kinoti, 2020). These reviewed studies appear to show a positive effect of budgeting through IFMIS on revenue collection but the current study appears to show IFMIS workers in Nairobi County who feels that the system is not as effective in dealing with Budgeting planning and implementation as it ought to.

4.2.2 Internal Control and Revenue Collection
Table 3 Internal Control and Revenue Collection

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean Score</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>The county has a clear internal control policy through IFMIS that helps in</td>
<td>3.13</td>
<td>2.133</td>
</tr>
<tr>
<td>collection of revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The county has a formidable tracking system through IFMIS which has helped</td>
<td>2.54</td>
<td>1.755</td>
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</table>
There are clear rules and regulations that run IFMIS which has helped improve revenue collection.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFMIS in the county reports the finances accurately which has helped improve revenue collection</td>
<td>4.12</td>
<td>2.768</td>
</tr>
<tr>
<td>IFMIS in the county reports the finances in a timely fashion which has helped improve revenue collection</td>
<td>4.97</td>
<td>1.976</td>
</tr>
<tr>
<td>IFMIS in the county reports the finances in a reliable manner which has helped improve revenue collection</td>
<td>2.56</td>
<td>1.102</td>
</tr>
<tr>
<td>Generally, the financial reporting mechanism through IFMIS is effective which has helped improve revenue collection</td>
<td>4.11</td>
<td>2.113</td>
</tr>
<tr>
<td>Average</td>
<td>3.321</td>
<td>2.152</td>
</tr>
</tbody>
</table>

The results from Table 4 show that IFMIS reports the financial information accurately which has helped improve overall revenue collection (M=4.12, SD=2.768); presents the financial information in a timely fashion which has helped improve revenue collection (M=4.97, SD=1.976) but unfortunately was not deemed reliable (M=2.56, SD=1.102). Generally, the financial reporting mechanism through IFMIS is precise which has helped improve overall revenue collection (M=4.11, SD=2.113). It appears therefore that financial reporting via IFMIS has had a positive effect on revenue collection as in Nairobi County. This result agrees with Micheni (2017) who looked at the critical factors that underlie integrated financial management system. The study noted that integrated financial management system is part of the reform agenda touching on public finance. Further, the study observes that some of the success factors associated with integrated financial management system include enhancement of fiscal control, budgeting management, financial reporting and financial safety and convenience in public entities and also helped to build up stakeholder confidence. Mugambi and Wanjohi, (2018) in their study noted that IFMIS also helps in the management of the finances of...
many government institutions which eventually promotes proper governance and accountability through the ensuring of proper allotment and utilization of public coffers in an efficient and professional way.

4.2.4 Records Management and Revenue Collection

Table 5 Records Management and Revenue Collection

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean Score</th>
<th>SD</th>
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<tbody>
<tr>
<td>IFMIS in the county records necessary information accurately which has helped improve revenue collection</td>
<td>3.94</td>
<td>2.006</td>
</tr>
<tr>
<td>IFMIS in the county manages the records in a timely fashion which has helped improve revenue collection</td>
<td>4.02</td>
<td>1.978</td>
</tr>
<tr>
<td>IFMIS in the county manages the records in a reliable manner which has helped improve revenue collection</td>
<td>2.11</td>
<td>1.224</td>
</tr>
<tr>
<td>Generally, the records management mechanism through IFMIS is effective which has helped improve revenue collection</td>
<td>3.28</td>
<td>1.118</td>
</tr>
<tr>
<td>Average</td>
<td>3.337</td>
<td>1.852</td>
</tr>
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The results from Table 5 show that respondents were largely unaware if IFMIS records the financial information accurately which has helped improve overall revenue collection (M=3.94, SD=2.006). However, they noted that IFMIS recording capacity did the work in a timely fashion which has helped improve revenue collection (M=4.02, SD=1.978) but unfortunately was not deemed reliable (M=2.11, SD=1.224). Generally, the records management system mechanism through IFMIS was unknown and thus its effect on revenue collection is not clear (M=3.28, SD=1.118). It appears therefore that records management via IFMIS has had a negative if unclear effect on revenue collection as in Nairobi County. This result agrees with Hendricks (2018) who did a study to examine the implementation metrics for integrated financial management system in South Africa. The study observes that one positive element of the integrated financial management system is that it creates almost a one-stop shop for significant financial accounting processes from budgeting, financial reporting, record keeping and procurement which in turn creates positive financial outcomes in terms of revenue collection, service delivery and proper and transparent accounting; but that records management within IFMIS still remains unclear.

4.3 Inferential Statistics

The inferential statistics are characterized by Pearson’s correlations done to test the relationship between the variables and multiple regression analysis to test the predictive power of the independent variables on the dependent variable.

4.3.1 Correlation Analysis

Table 6 Association between IFMIS and Revenue Collection

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<tr>
<th></th>
<th>Revenue Collection</th>
<th>Budgeting</th>
<th>Financial Reporting</th>
<th>Internal Control</th>
<th>Record Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFMIS Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budgeting</td>
<td></td>
<td>.522**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The correct interpretation of a Pearson’s correlations analysis done by Field (2015) note that any R-value that lies between the boundaries of 0.1-0.3 is weak, a value that falls within the 0.3-0.4 possesses medium value and those that are 0.5-1.0 is considered a strong R-value. Nonetheless, any value that exceeds 0.8 is undesirable because it creates the potential for multicollinearity. From the results from Table 4.16 there is a strong statistical association between budgeting enacted by IFMIS and revenue collection (r=.522 p value <0.01); a strong statistical association between records management and revenue collection (r=.507 p value <0.01); and the strongest statistical association between internal control and revenue collection (r=.678 p value <0.01). However, there is a negative and weak statistical association between financial reporting and revenue collection (r=-.211 p value <0.01) in Nairobi County Government. This implies that budgeting, internal control and records management enacted by IFMIS are strongly associated with revenue collection but not financial reporting.

### 4.3.2 Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.732a</td>
<td>.707</td>
<td>.611</td>
<td>.171</td>
<td>2.298</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Budgeting, internal control, financial reporting, records management

b. Dependent Variable: Revenue collection

From Table 7 the R-value of .732 indicates that the results had a positive direction and was thus statistically significant. Clearly, therefore, there is a significant correlation between the predicted and observed value attached to the dependent variable. The fact that the value is closer to 1, shows a strong relationship between the values. The R² value of .611 shows that 61.1% of the variance associated with dependent variable (Revenue collection) was explained and predicted by independent variables (Budgeting, internal control, financial reporting, records management).
Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.866</td>
<td>.361</td>
<td>.282</td>
<td>7.099</td>
</tr>
<tr>
<td>Budgeting</td>
<td>.321</td>
<td>.069</td>
<td>.308</td>
<td>5.765</td>
</tr>
<tr>
<td>Internal control</td>
<td>.172</td>
<td>.056</td>
<td>.161</td>
<td>2.665</td>
</tr>
<tr>
<td>Financial reporting</td>
<td>.129</td>
<td>.062</td>
<td>.109</td>
<td>4.231</td>
</tr>
<tr>
<td>Records Management</td>
<td>.233</td>
<td>.062</td>
<td>.221</td>
<td>3.165</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Revenue collection

The F-statistics generated from the quantitative results (F = 98.391) is statistically significant at 5 per cent level (Sig. F < 0.05) which shows the fitness of the regression model and thus indicative of the presence of statistical significance between Budgeting, internal control, financial reporting, records management, and Revenue collection.

Table 9 Coefficients

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the first objective, the study can conclude that while the county had a clear budgeting policy through IFMIS, the policy was only on paper and not effectively implemented which had negatively affected revenue collection at Nairobi City County. Based on the second objective, the study concludes that ineffective internal control done through IFMIS has a negative effect on revenue collection in Nairobi County Government. Results on the third objective conclude that financial reporting via IFMIS has had a positive effect on revenue collection as in Nairobi County. Results on the fourth objective conclude that records management via IFMIS has had a negative if unclear effect on revenue collection as in Nairobi County.

Thus, the County Government of Nairobi in conjunction with National Treasury should initiate a robust review of the IFMIS system to ensure that it is improved if it is to meet the budgeting, internal control, financial reporting and records management requirements for effective revenue collection. The County Government of Nairobi in conjunction with National Treasury should review the rules and regulations that control IFMIS to ensure that it effectively links planning, policy objectives and budget allocation effectively. The County Government of Nairobi in conjunction with National Treasury should continue to advance the financial reporting information features to make information and reporting of financials more precise. This will help avoid duplication of financial functions and consequently improve revenue collection. The County
Government of Nairobi in conjunction with National Treasury should initiate a stricter internal control system that tracks the whole process from start to finish. Such controls should have stipulations that reduce contact with IFMIS by unscrupulous users and thus avoid loss of funds. The County Government of Nairobi in conjunction with National Treasury should install features in IFMIS that allow the system to self-identify lapses and self-correct those lapses. The whole system should also allow for feedback and robust evaluation to strengthen revenue collection.

**References**


