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EFFECT OF PUBLIC FINANCE MANAGEMENT AUTOMATION ON FINANCIAL PERFROMANCE OF KIAMBU COUNTY GOVERNMENT IN KENYA

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Abstract*: Despite the automation of public finance management functions with an aim of enhancing financial performance of counties in Kenya, cases of misreporting still abound. For instance, published financial statements of county government of Kiambu included some items exclusively reserved for the national government. In addition, own-source revenues declined by 24 percent in the year ended June 2018 compared to a similar period the previous year.*

Objectives: *These adverse findings motivated the current research which sought to establish the influence of public finance automation on financial performance of Kiambu county government. The specific objectives were to examine the extent to which revenue collection automation, cash management automation, financial reporting automation and internal control automation impacted on financial performance of the county government.*

Findings: *The study targeted 20 senior officials of the Kiambu government and attained a response rate of 85 percent. Based on the findings, cash management automation and internal control automation had significant positive influence on financial performance. However, revenue collection automation and financial reporting automation had a significant but negative influence on financial performance. The study recommends that the county government should embrace automation of both cash management and internal controls as both are positively linked to performance. Further, the study recommends to the county leadership to investigate the reasons underlaying the negative influence of revenue collection and financial reporting automation.*

Keywords*: revenue collection automation, cash management automation, financial reporting automation, internal control automation*

INTRODUCTION

In Kenya, the Government has accepted numeral public financial management (PFM) improvements meant at improving accountability and changing transparency over the last ten years (Grant Thornton International, 2015). In a move meant to mitigate the challenges in financial reporting and governance, the Kenya government opted for a computerized system that aided in public financial management. The automation of the public financial management system would not only aid in preparation of update financial reports, but also help in management of national public debt. Further, it was hoped that the system would assist in cashflow forecasting in addition to attainment of effective financial controls (Kibui, 2015). County governments in Kenya are faced with severe cases of mismanagement of resources as revealed by reports from the office of the Auditor-General (Kenya National Audit Office, 2016). There have been concerns over poor performance by the devolved units.

The lacklustre performance has been attributed to unreliable and untimely information which provides little basis for decision making. A confirmation of the rot and weaknesses in management of financial information in the county governments have been revealed by reports from the office of the Accountant general at the national treasury in Kenya (Kibui, 2015).

Counties in Kenya are continually striving to improve financial management systems through various reform programs, aimed at increasing transparency, accountability, as well as responsiveness of County financial resources to enhance the quantity and quality of service delivery to meet its developing priorities (Langat, 2016). A survey by Transparency International Survey in 2017 on County Governments Performance in Kenya clearly indicated that 41% of the Kenya populations from the 47 were unsatisfied with the performance of their Counties. According to Akinyi (2016), automation of public finance management by counties is one of the great breakthroughs for the county governments development though transparency and answerability in the entire automation process.

Public Financial Management Automation

The process of automating the Public Financial Management (PFM) was first launched in Kenya in 2003 but with only few modules with others functions remaining manual (National Treasury, 2017). According to ICPAK (2017), the system has over the time been re-engineered to accommodate other modules and has been officially referred to as the Integrated Financial management Information system (IFMIS). Though defined differently across the IFMIS literature, the general consensus is that it is a multifaceted computerized public sector finance and accounting system. The IFMIS consists of different sub-systems and procedures that are guided by the generally accepted guidelines and procedures anchored on the public finance management body of regulations (Institute of Certified Public Accountants of Kenya, 2017).

The IFMIS is designed to support budgetary process in public sector, operations in accounting, finance and promotion of improved public financial management with uniform revenue and expenditure recording across the entire breath of government (Kenya National Audit Office, 2016). The Public Financial Management Automation is a key cog in improving the quality of public service delivery outcomes. Not only does the automation ensure strong financial stewardship, accountability and transparent use of public funds, it has impacted on aggregate public finance management (Kenya National Audit Office, 2016).

Statement of the Problem

In a bid to improve on the financial performance of devolved units, County Governments in Kenya run automated public financial management platform, commonly referred to as the Integrated Financial Management Information System (IFMIS) to interlinks planning, budgeting, expenditure management and control, accounting, audit and reporting (Institute of Certified Public Accountants of Kenya, 2017). The automation of public financial management is meant to make improvements on how financial data is recorded, tracking of the same and management of information. According to the National Treasury (2017), the IFMIS system ensures automation of procurement process, facilitate auto-reconciliation of revenues and payments, automate revenues collection for improved cash forecasting. In addition, the system should enhance financial reporting capabilities in order to provide the county governments with accurate and up to date financial information on the governments financial position.

Despite the strong legislative and institutional frameworks for automated public financial management platform, over the past eight years, the management of public finance in county governments in Kenya continuous to experience challenges. For instance, budget execution reports that were annexed to Kiambu

County government audited statements indicated that the unit had allocated money to programs that were reserved to the national government among them financing primary education, state-house activities as well as the South Sudan conflict resolution efforts (Kenya National Audit Office, 2019). Further, the Office of the Controller of Budget (2018) reviewed that counties' own source revenue generation and collection reduced by 24 percent to Kenya Shillings 1.66 Billion in the period 2017/2018 compared to Kenya Shillings 2.1 Billion collected in the previous period. In light of these recent but adverse findings, the study investigated the influence of public finance automation on financial performance of Kiambu county government. In addition, lack of proper accounting systems and weak controls at the county level have continuously facilitated misuse of the allocated public funds, slowing down service delivery and overall performance of the county governments (Contoller of Budget, 2018).

While as different scholars have linkage public finance automation to financial performance, the findings are not unanimous. For instance, Kirimi, (2015) looked at the Influence of automation of revenue collection process on organizational performance of the Meru County government, Kenya. However, the study was based in Meru county and it is not clear if the findings are portable to Kiambu county. In addition, the study only considered revenue automation. On their part Henry Bogonko and Ong'iyo, (2018). sought to find out the Influence of automation on revenue collection in Nakuru County Government Kenya. The study however was based in Nakuru county and had revenue collection as the dependent variable and automation as the independent. Oyinlola et al., (2017). Studied the effects of integrated financial management information system on performance of public sector in Nigeria. The study was however carried out in Nigeria and it's not clear if the findings can be generalized in the Kenyan scenario. In light of the above, this study investigated the influence of public finance automation on financial performance of Kiambu county government.

Objectives of the Study

The general objective of this study was to investigate the effect of public finance management automation on financial performance of Kiambu county government. With specific objectives to;

i. Evaluate the effect of revenue collection automation on financial performance of Kiambu county government.
ii. Investigate the influence of cash management automation on financial performance of Kiambu county government.
iii. Determine the effect of financial reporting automation on financial performance of Kiambu county government.
iv. Explore the influence of internal control automation on financial performance of Kiambu county government of Kenya.

Research Hypotheses

The following hypotheses were tested at 95 percent level of confidence level.

H_{01}: Revenue collection automation has no significant effect on financial performance of Kiambu county government.

H_{02}: Cash management automation has no significant effect on financial performance of Kiambu county government.

H_{03}: Financial reporting automation has no significant influence of Kiambu county government.

H_{04}: Internal controls automation has no significant influence on financial performance of Kiambu county government.

RESEARCH METHODOLOGY

The study, which covered five-year period to 2018 used primary data that was collected using a self-administered questionnaire. Descriptive statistics were used to describe the variables of the study while multiple liner regression was used to establish the scope and extent of the relationship. All tests were at 95 percent level of significance. Data collected was analysed using descriptive and inferential statistics.

The study adopted a multiple regression model to establish the relationship between public finance management automation and performance of the Kiambu county government. Multiple regression analysis shows combined influence of several independent variables upon one dependent variable. Multiple linear regression analysis using Statistical Package for Social Sciences was performed at 95 percent confidence level. Inferential statistics involved Pearson's correlation, ANOVA and regression analysis. The regression model is presented in equation 1.

$$Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + e \quad \ldots\ldots(1)$$

Where

Y represents financial performance

α_0 represents regression constant

α_1, α_2, α_3, α_4 represents the regression coefficients

X_1: - Revenue Collection Automation

X_2: - Cash management automation

X_3: - Financial Reporting Automation

X_4: - Internal Control Automation

e : represents the error term

RESEARCH FINDINGS AND DISCUSSION

Descriptive Statistics

To establish the level to which public financial management automation influenced financial performance, the respondents were asked to give their opinion on a series of statements that were based on the study objectives. The statements were in five-point Likert scale whereby when combined would measure the respondents' opinion on contribution of public finance management automation towards the financial performance of Kiambu county government. The researcher calculated the mean and standard deviation of the Likert scale items and obtained the average for each of the variable/objective. The range of each point in the scale was obtained by dividing the difference between the highest and the lowest points with the number of points in the scale [(5 – 1)/5 = 0.8]. Therefore, mean scores of 1 to 1.8 represented "to no extent", 1.81 to 2.6 represented to "less extent", 2.61 to 3.4 represented "moderate extent", 3.41 to 4.2 represented "large extent" and the mean score above 4.21 to 5 represented a response of "strongly agree". The results are discussed in the subsections that follows.

Revenue Collection Automation

Revenue collection automation provides functionalities for all the activities related to revenue generation, collection, recording and to distribution of funds to the departments. The results of revenue collection automation are provided in Table 1.

Table 1: Revenue Collection Automation

Statement	Mean	SD	CV
Revenue management automation has enhanced revenue collection efforts in the county.	4.00	0.61	0.15
The automation of revenue management has promoted transparency, accountability and efficiency of county government collections hence improved revenue collection.	3.76	0.66	0.18
The automation of revenue management system has enhanced the attainment of own source revenue targets in the county.	3.53	0.72	0.20
Linked Revenue management automation have reduced spending at source and hence misappropriation of public funds in the County.	3.94	0.97	0.25
Online billing systems has ensured all revenue streams have been captured in the automated revenue management systems.	3.82	0.88	0.23
Generally Online receipting systems improved efficiency and effectiveness in revenue collection at the county since introduction of automation of revenue management system.	3.94	1.03	0.26
Average	**3.83**	**0.81**	**0.21**

Results in Table 1 indicate that the average mean score for revenue collection automation was 3.83. This implied that revenue collection automation applied to a large extent in Kiambu County Government. Overall coefficient of variation of 0.21 indicated low variability in the responses meaning that the respondents' opinion with regard to revenue collection automation was consistent. Enhancement of revenue collection efforts had the highest mean score (Mean = 4.00; Coefficient of Variation = 0.15). This revealed that enhancement of revenue collection was more favourable more so to a large extent compared to other factors and there was agreement among respondents as evidenced by the low coefficient of variations. The statements with the second highest mean score were "reduced spending at source" (Mean score= 3.94; Coefficient of variation= 0.25) and "improved efficiency and effectiveness" (Mean = 3.94; Coefficient of variation = 0.26) corresponding to a large extent. The two statements, however had the highest variability indicating there was lack of agreement among the respondents on the extent to which the county government had achieved this measure. The statement with the lowest mean score was "enhancing the attainment of own source revenue" (mean score = 3.53; coefficient of variation =0.20).

Cash Management Automation

Cash management automation was hypothesised to provide data that guaranteed enhanced proficiency and viability of cash related administration. Respondents were asked to indicate to what extent the cash management enhanced performance at the county government and the results are presented in Table 2.

Table 2: Cash Management Automation

Statement	Mean	SD	CV
Cash management automation have enhanced timely record keeping of accounting transactions and financial reporting.	3.82	0.73	0.19
The automated cash management module has reduced itemized budget misallocation hence less audit queries.	3.59	0.62	0.17
Use of the automated cash management module has improved payment processes and hence reduced misuses of public funds.	3.71	0.92	0.25
The use of the module allows detection of fraudulent and suspicious transactions.	3.35	0.79	0.23
The system has improved on the budget formulation process in the county.	4.06	0.75	0.18
The automated cash management module allows timely implementation of county government projects hence reduced the amounts of unutilized funds.	3.59	1.18	0.33
Average	**3.69**	**0.83**	**0.22**

Results in Table 2 indicate that the system has improved on budget formulation process had the highest mean (3.91, standard deviation = 0.75) followed by cash automation had enhanced timely record keeping (mean score 3.82, Standard Deviation = 0.73) and the results indicate that the county government embraced automation to a large extent. The statement with the lowest variability was that cash automation module reduced itemized budget misallocation (coefficient of variation 0.17) indicating there was a general agreement among the respondents on the extent to which the county had achieved this measure. The statement with the highest variability was automation of cash management module allowed for timely implementation of the projects (Coefficient of variation = 0.33) indicating there was lack of agreement among respondents to the extent the county achieved this measure. The statement with the lowest mean was the cash management module allowed for timely detection of fraud and suspicious transaction (Mean = 3.35; Standard deviation = 0.79). This corresponded wit to a moderate extent. The average combined mean score (Mean 3.69; Standard Deviation = 0.83) suggests that the respondents expressed agreement to the statements on cash management automation at Kiambu County Government. A coefficient of variation of 0.22 indicate low variability in responses meaning that the respondent opinion with regard to cash management automation at the county government was consistent.

Financial Reporting Automation

According to the National Treasury (2017), Financial reporting automation is the application of information technology in preparation and presentation of financial statements and it lays the building blocks for an organization to manage its financial resources. Statements depicting these aspects were posed to the respondents and the results are presented in Table 3.

Table 3: Financial Reporting Automation

Statements	Mean	SD	CV
It is possible to extract customized reports from the automated financial reporting module to facilitate decision making.	4.06	0.75	0.18
Staff can easily access the automated financial reporting module for specific job-related information.	3.82	0.81	0.21
There is an in-build statistical program that eases analysis of trend across different elements of operations.	3.40	1.33	0.39

Through Financial reporting automation, facilitates real time reconciliation of transaction data.	3.88	0.70	0.18
The Automation of financial reporting enables the county to generate customised reports for both internal and external use.	4.06	0.75	0.18
Reports generated facilitates understanding by different stakeholders providing oversight.	3.65	1.06	0.29
Average	**3.81**	**0.90**	**0.24**

The average combined score (mean = 3.81; Standard Deviation = 0.90) shown in table 3 suggests that the respondents expressed agreement to a large extent with regards to statements on financial reporting automation at Kiambu County Government. A co-efficient of variation of 0.24 indicates low variability in responses meaning that the respondents' opinion in regards to financial reporting automation were consistent. Two statements "it's possible to extract customized reports" and "the county is able to generate external and internal use customized report" had the highest mean score as well as the lowest variability (Mean = 4.06; Coefficient of variation = 0.18). This indicated that the respondents felt that the contribution of customized reports was more predictable, while low coefficient of variation was an indicator that there was agreement among the respondents. The statement that had the lowest mean score was "There is an inbuilt statistical program that eases analysis of trend across different elements of operations" (mean score = 3.40; Standard Deviation = 1.33) indicating that the respondents were in agreement albeit to a moderate extent. However, the statement had the highest variability (Coefficient of variation = 0.39) indicating there was lack of agreement among the respondents on the extent the statistical program aided in trend analysis. The results also indicate the financial reporting automation facilitates real time reconciliation and staff can easily access the automated module to a large extent as indicated by mean scores of 3.88 and 3.82 respectively.

Internal Controls Automation

Internal controls automation aims at ensuring reliability of financial information, the effectiveness and efficiency of operations as well as compliance with legal and regulatory frameworks. To capture data on these aspects, descriptive statements derived from extant literature were presented to respondents on a Likert scale. They were required to indicate the extent to which the statements applied to the county government. The results are presented in Table 4.

Table 4: Internal Controls Automation

Statements	Mean	SD	CV
Internal control automation has enhanced transparency of financial transactions of the county.	3.82	0.64	0.17
The linking of the automated internal control module with other modules has improved monitoring and evaluation on budget spending.	3.88	0.86	0.22
The Automated internal control system allows timely detection of fraud and other suspicious transaction	3.47	0.94	0.27
The linking of the automated internal control module with other modules has reduced misuse of public funds.	3.18	0.73	0.23
Linking automated module for internal control with other modules enhanced control.	3.47	0.80	0.23

Internal control automation has improved accountability among the county staff.	3.71	1.10	0.30
Average	**3.59**	**0.84**	**0.24**

The average combined score (Mean = 3.59; Standard Deviation = 0.84) shown in Table 4 suggests that the respondents expressed agreement, to a large extent, with regards to statements on the contribution of internal controls automation toward the financial performance of Kiambu County. A coefficient of variation of 0.24 indicate low variability in responses meaning that the respondents' opinion with regard to internal control automation at the county were consistent.

The statement that internal controls automation had improved monitoring and evaluation had the highest mean score (mean = 3.88, standard deviation = 0.86) meaning respondent were in agreement to a large extent. There has been enhancement of transparency in financial transactions had the second highest mean score as well as lowest variability (mean = 3.82; coefficient of variation = 0.17) implying that there was agreement among the respondents on the extent to which transparency had been enhanced. The statement with the highest variability was internal control automation had improved accountability (coefficient of variation = 0.30) implying lack of agreement among respondents on the extent to which accountability had been achieved.

Internal control automation had reduced misuse of funds had the lowest mean score (mean = 3.18; standard deviation = 0.73) thus receiving moderate rating.

Financial Performance

The study sought to establish to what extent the county had achieved financial performance measures. Financial performance which was the dependent variable was operationalized by attainment of set targets and attainment of own source revenue. To capture data on these aspects, respondents were asked to indicate to what extent statements applied in the case of Kiambu County Government. The results are presented in Table 5.

Table 5: Financial Performance

Statements	**Mean**	**SD**	**CV**
Public financial management automation has enhanced financial performance in the County through efficient allocation of funds for development expenditure.	3.82	0.73	0.19
Public financial management automation has improved the absorption rate in the county by ensuring compliance with the budget thus enhancing financial performance.	3.76	0.66	0.18
Public financial management automation has enhanced the attainment of own source revenue targets in the county.	3.59	0.87	0.24
Public financial management automation modules have promoted transparency, accountability and efficiency of county government collections hence improved revenue collection.	3.59	0.94	0.26
Public financial management automation system has reduced the number of audit queries on un-planned expenditure by various units in the County.	3.71	0.99	0.27
Average	**3.69**	**0.84**	**0.23**

Results in Table 5 indicates that public financial management automation had enhanced financial performance had the highest mean score (mean = 3.82; standard deviation = 0.73). This was followed by there was improved absorption rate thus compliance (mean= 3.76; standard deviation = 0.66). This implied that the majority of the

respondent agreed to a large extent on the influence of Public financial management automation on financial performance. The two statements had the lowest variability (coefficient of variation = 0.19 and 0.18 respectively) indicating there was a general agreement among the respondents on the extent the Kiambu County Government had achieved this measure.

The statement with highest variability was PFMA had reduced the number of audit queries (coefficient of variation = 0.27) indicating there was lack of agreement among the respondents on the extent the county government had achieved this measure. Public financial management automation has enhanced the attainment of own source revenue targets in the county. The statements PFMA had promoted transparency and enhanced attainment of own source revenue had the lowest mean (3.59).

The Average combined score (mean = 3.69; standard deviation = 0.84) suggests that the respondents were in agreement that the level of financial performance of the county had improved as a result of public financial management automation. A coefficient of variation of 0.23 indicated low variability in the responses meaning that the respondents' opinion with regard to the effect of PFMA at the county were consistent.

Diagnostic Tests

Before data was subjected to regression analysis, diagnostic tests were done to ensure that data did not violate important assumptions of regression analysis. The tests and the results are discussed in the following subsections.

Normality Tests

Normality tests are used to examine if a given set of data is well modelled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. Non normally distributed variables may distort relationships and significance test thus making unreliable inferences. Though there are several tests for normality such as Shapiro-Wilk and Kolmogorov-Smirnov, this study adopted Shapiro-Wilk as is more appropriate for small sample sizes. The findings of the test are presented in Table 6.

Table 6: Normality Test

	Shapiro-Wilk		
Variable	Statistic	df	Sig.
Revenue Collection Automation	.976	17	.916
Cash Management Automation	.928	17	.199
Financial Reporting Automation	.946	17	.390
Internal Controls Automation	.945	17	.389
Financial Performance	.969	17	.792

If p-value is greater than chosen alpha level, then the hypothesis that the data came from a normally distributed population cannot be rejected. The results in Table 6 show that all the p-values for Shapiro-Wilk (0.916, 0.199, 0,390, 0.389, 0.789) were greater than the alpha level of (0.05). Thus, the data was normally distributed with a mean of zero.

Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression analysis are highly correlated, meaning that one can be linearly predicted from the others with a non-trivial degree of accuracy. The greater the multicollinearity, the greater the standard errors. The Variance Inflation

Factor (VIF) is used to test for linearity. If VIF is above 10, then it is indicative of harmful collinearity. The findings are presented in Table 7.

Table7: Multicollinearity Tests

	Collinearity Statistics[a]	
Variable	Tolerance	VIF
Revenue Collection Automation	.639	1.565
Cash Management Automation	.537	1.862
Financial Reporting Automation	.549	1.822
Internal Controls Automation	.328	3.045

The collinearity statistics in Table 7 indicates that all the VIF values are less than 10 hence an indication that there was no multicollinearity among the study variables. This indicates that the assumption of multicollinearity has not been violated in the study.

Autocorrelation Test

The degree of correlation between values of the same variable is referred to as autocorrelation. The presence of serial correlation violates one of the assumptions of regression. This study adopted Durbin-Watson (DW) test to test for autocorrelation. DW value of 1.5 – 2.5 indicates absence of autocorrelation. Table 8 represents the results.

Table 8: The Durbin-Watson Test

Model	D-W	Conclusion
Public Financial Management Automation and Financial Performance	1.510	No Autocorrelation

Results in Table 8 indicates that there was no autocorrelation as the computed D-W statistics lies between 1.5 and 2.5.

Test for Heteroscedasticity

To test for the presence of heteroscedasticity, the macro syntax by Gwilym Pryce on Breusch-Pagan and Koenker test was run. Koenker test was favoured due to small sample size of 17. The results of the test are presented in Table 9.

Table 9: Koenker Test statistics

Model	Koenker test	Sig value
Public Financial Management Automation and Financial performance	7.128	0.128

From the findings in Table 9, since the p value of the model is greater than the significance level of 0.05, the null hypothesis is not rejected. This means that data for the model is not heteroskedastic.

Inferential Analysis

Correlational Analysis

The study conducted Pearson correlation analysis at significance level of *alpha* = 0.05 in order to establish the significance and nature of association between the variables of the study. Table 10 presents the results.

Table 10: Correlation Matrix

		Revenue Collection Automation	Cash Management Automation	Financial Reporting Automation	Internal Controls Automation	Financial Performance
Revenue Collection Automation	Pearson Correlation	1				
	Sig. (2-tailed)					
Cash Management Automation	Pearson Correlation	.477	1			
	Sig. (2-tailed)	.053				
Financial Reporting Automation	Pearson Correlation	.072	.336	1		
	Sig. (2-tailed)	.784	.187			
Internal Controls Automation	Pearson Correlation	.496*	.657**	.615**	1	
	Sig. (2-tailed)	.043	.004	.009		
Financial Performance	Pearson Correlation	.412	.653**	.283	.688**	1
	Sig. (2-tailed)	.100	.004	.270	.002	

*. Correlation is significant at the 0.05 level (2-tailed).

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

The results in Table 10 indicated that cash management automation ($r = 0.653$, $p < 0.05$) and Internal controls automation ($r= 0.688$, $p < 0.05$) had a strong, positive and significant relationship with financial performance of Kiambu County Government. The results further indicated revenue collection automation ($r= 0.412$, $p>0.05$) had a moderate, positive but not significant relationship with financial performance. On the other hand, financial reporting automation ($r=0.283$, $p > 0,05$) had a week, positive but not significant relationship with financial performance of Kiambu County Government.

Regression Analysis

The study also conducted a multiple regression analysis to ascertain the degree of influence of revenue collection automation, cash management automation, financial reporting automation and internal controls automation on financial performance of the county as shown in Table 11.

Table 11: Public Finance Management Automation and Financial Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753[a]	.566	.422	.52442
a. Predictors: (Constant), Internal Controls Automation, Revenue Collection Automation, Financial Reporting Automation, Cash Management Automation				

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.309	4	1.077	3.917	.029[b]
	Residual	3.300	12	.275		
	Total	7.609	16			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Internal Controls Automation, Revenue Collection Automation, Financial Reporting Automation, Cash Management Automation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.996	1.260		.790	.445
	Revenue Collection Automation	-.041	.276	-.035	-.148	.885
	Cash Management Automation	.397	.304	.339	1.307	.216
	Financial Reporting Automation	-.240	.308	-.200	-.780	.451
	Internal Controls Automation	.643	.352	.605	1.825	.093

a. Dependent Variable: Financial Performance

The results in Table 11 indicates that overall, there was a strong correlation between independent variables and the dependent variable as indicated by a R value (correlation coefficient) of 0.753. The coefficient of determination, R Square Value of 0.566 indicates that the independent variables accounted for 56.6 percent of the variation in the dependent variable. The F statistics value of 3.917 was significant as indicated by the p value (0.029) is less than 0.05 hence an indication that the model is fit and significant. The results indicate that revenue collection automation (β = -0.041, p = 885) had a negative and significant influence on financial performance of Kiambu County Government. These findings suggest that a unit change in revenue automation brings about an inverse change of 4.1 percent in financial performance. The findings also indicated that cash management automation (β = 0.397; p= 0.216) had a positive and significant influence on financial performance. The results suggest that the implementation of automated cash management had led to improvement in financial performance with a unit change contributing to 39.7 percent of financial performance in the county.

In addition, the results showed that financial reporting automation (β = -0.240, p= 0.451) had a negative and significant influence on financial performance. This implied that a unit change in financial reporting automation contributed to a 24 percent decrease in the county's financial performance. Finally, the results indicated that internal controls automation (β = 0.643; p =0.093) had a positive and significant influence on financial performance of Kiambu County Government. The findings suggest that internal control automation had contributed to a 64.3 percent improvement of the county's financial performance. Therefore, the financial performance of Kiambu County Government can be modelled as follows:

$Y = 0.966 – 0.041X_1 + 0.397X_2 – 0.240\ X_3 + 0.643X_4$

Where Y = Financial performance; X_1 = revenue collection automation; X_2 = cash management automation; X_3 = financial reporting automation; X_4 = Internal controls automation.

Hypothesis Testing

This section presents the test of various study hypotheses. The study was based on the premise that public financial management automation influences financial performance of Kiambu county government. From the premise, four specific objectives and four hypotheses were formulated for testing. In order to establish the statistical significance, tests were carried out at 95 percent significant level ($p< 0.05$). decisions to reject or fail to reject a hypothesis was based on the p-value. Where $p< 0.05$, the study failed to reject the hypothesis and where $p> 0.05$, the study rejected the hypothesis.

Revenue Collection Automation and Financial Performance

The first objective of the study was to evaluate the effect of revenue collection automation on financial performance of Kiambu County Government, Kenya. Based on the objective, the following hypothesis was formulated for testing.

H_{01}: Revenue collection automation has no significant effect on financial performance of Kiambu County Government.

Results in Table 11 indicates that p-value of revenue collection automation was 0.885. Since the p value is greater than 0.05, the null hypothesis is rejected. This implies that revenue collection automation had significant effect on financial performance of Kiambu County Government. This finding is consistent with empirical findings of Kirimi (2015); Henry, Bogonko and Ong'iyo (2018); and Ndzovu and Ng'ang'a (2019) that revenue collection automation enhances financial perfromance.

Cash Management Automation and Financial performance

The second objective sought to find out the effect of cash management automation on financial performance of Kiambu county government in Kenya. To this end, the following hypothesis was tested.

H_{02}: Cash management automation has no significant influence on financial performance of Kiambu County Government.

From Table 11, the coefficient of cash management automation is 0.397 and a corresponding p value of 0.885. The p value is greater than 0.05 and therefore the null hypothesis is rejected implying that cash management automation has a significant positive influence on financial performance of Kiambu County Government. The magnitude of the coefficient of cash management automation implying that a unit change in cash management automation leads to a 39.7 percent increase in financial performance. The findings are consistent with Grant Thornton International (2015); Oyinlola, Folajin and Balogun (2017); and (Njogu, 2019) whose empirical findings indicated that cash management automation had a significant and positive influence on financial performance.

Financial Reporting Automation and Financial Performance

The study's third objective sought to determine the effect of financial reporting automation on financial performance of Kiambu County Government in Kenya. Consequently, the following null hypothesis was tested.

H_{03}: Financial reporting automation has no significant influence on financial performance of Kiambu County Government.

The coefficient of financial reporting automation is – 0.240 and a corresponding p-value of 0.451 as indicated in Table 4.16. Since the calculated p-value is greater than 0.05, the null hypothesis is rejected. This implies that the alternative hypothesis, financial reporting has a significant influence of financial performance of Kiambu County Government is accepted. Thus, financial reporting is taken to have a significant negative effect on financial performance of the Kiambu County Government.

The significant relationship between financial reporting automation and financial performance is supported by Njogu (2019) who established that financial systems influenced performance. However, the findings were not in sync with the empirical findings in Lundu and Shale (2015) that indicated a positive but not significant relationship between integrated financial management information system and performance. The findings are also in variance with Maina (2015) whose empirical findings indicated a positive but insignificant relationship between financial systems automation and performance of Nairobi City County Government. However, Maina (2015) observed that financial reporting automation frees up resources for reallocation toward core activities to better serve the county's goals.

Internal Control Automation and Financial Performance

The fourth objective and last objective explored the influence of internal controls automation on financial performance of Kiambu County Government in Kenya. To achieve this objective, the following null hypothesis was formulated ant tested.

H_{04}: Internal control automation has no significant influence on financial performance of Kiambu County Government.

Table 4.16 show the coefficient of internal control automation is 0.643 and a corresponding p-value of 0.093. The magnitude of the coefficient implies that a unit change in internal controls automations result to a 64.3 positive change in financial performance of Kiambu County Government. Since the p value is greater than 0.05, the null hypothesis is rejected. This implies that internal controls automation has a significant positive influence on financial performance of Kiambu County Government.

This finding is consistent with Mbithi and Maina (2016) who concluded that internal control automation ensured reliability of financial information. The findings also agree with Kirimi (2015) who argued that automation of internal controls influenced operational performance and efficiency. The findings also agree with observations of the Controller of Budget (2018) that internal control automation had a significant influence on financial performance of county governments in Kenya.

SUMMARY

This section presents a summary of findings of the study. The general objective of the study was to explore the effect of public finance automation on financial performance of Kiambu County in Kenya. This was tested using four independent variables: revenue collection automation, cash management automation, Financial reporting automation and internal controls automation. From the four specific objectives, four hypotheses were formulated and tested in their null form. The study was anchored on four theories; the rational expectations theory of technology adoptions, technology acceptance model, the diffusion of innovation theory and task technology fit theory. The study targeted the executive of Kiambu County who consisted of twenty respondents who comprised of Governor, county minister for finance, the chief officer finance, heads of directorates and other senior managers. Census survey was employed as the population of the study was small.

The study employed explanatory research design. Data was collected using self-administered questionnaires. Descriptive statistics such as mean, standard deviations and coefficient of variations were used to describe and summarise the data. Inferential statistics, particularly regression analysis was used to establish the nature and magnitude of the relationship hypothesised between the variables. The model specifications were tested using multicollinearity test, autocorrelation test, heteroscedasticity. The analysis of the research data showed that public finance management automation (revenue collection automation, cash management automation, financial reporting automation and internal controls automation) had statistically significant but mixed effect on financial performance of Kiambu County Government.

Conclusion

On the basis of the first objective that sought to evaluate the effect of revenue collection automation on financial performance, results of descriptive statistics implied that the respondents concurred that revenue collection automation applied to a large extent in the county. The inferential statistics further showed that revenue collection automation had a statistically significant but negative effect on financial performance of Kiambu County Government.

On the second objective that sought to determine the effect of cash management automation on financial performance, the descriptive statistics showed that the respondents were of the view that CMA applied to a large extent in Kiambu county. Inferential statistics on the effect of CMA on financial performance yielded statistically significant positive results. In view of the above findings, the study concludes CMA positively affects financial performance of county governments in Kenya and it's an appropriate strategy that would confer numerous benefits to the county governments.

Regarding the third objective of the study that sought to establish the effect of financial reporting automation on financial performance of Kiambu County Government, the descriptive statistics showed that the respondents strongly agreed that FRA was linked to performance of the county government. Results of regression analysis revealed that FRA had a statistically significant but negative influence on financial performance of the county government.

Concerning the fourth objective of the study that sought to explore the effect of internal control automation on financial performance of Kiambu County Government, results of the descriptive statistics implied that the respondents highly concurred that ICA was liked to positive performance. This finding is supported by the inferential statistics were results of the regression analysis yielded statistically significant positive results.

REFERENCES

Controller of Budget. (2018). Annual County Government Budget Review Report. Nairobi: OCOB.

Grant Thornton International. (2015). Innovation in public financial management. London: Grant Thornton International Ltd.

Henry, J. O., Bogonko, J., & Ong'iyo, C. (2018). Influence of automation on revenue collection in Nakuru County Government in Kenya. International Journal of Economics, Commerce and Management Volume 6 Issue no 9, 230 - 245.

IMF. (2015). Public Financial Management in Latin America: The key to efficiency and transparency. New York: IMF.

Institute of Certified Public Accountants of Kenya. (2017). The Benefits, challenges and way forward of IFMIS in Kenya. IPSAS workshop. Nakuru, Kenya: ICPAK.

Kenya National Audit Office. (2016). Audit report on IFMIS effectiveness. Nairobi, Kenya: Kenya National Audit Office.

Kenya National Audit Office. (2019). Summarized report on Kenya's county government 2017/2018 financial period. Nairobi, Kenya: Kenya National Audit Office.

Kirimi, P. W. (2015). The influence of automation of revenue collection process on organisational performance of County Government of Meru, Kenya. Unpublished Masters of Project management research report submitted to the University of Nairobi.

Langat, G. (2016). Influence of Integrated financial management information system on financial performance water infrastructure projects in Bomet county government. Unpublished MBA thesis submitted to the University of Nairobi.

Lundu, B. L., & Shale, N. (2015). Effect of integrated financial management system on supply chain performance of Nairobi County Government. Journal of procurement and supply chain management, 1 - 26.

Maina, L. N. (2015). The strategic effect of automating financial systems in the performance of Nairobi County in Kenya. Unpublished Master of Business Administration thesis submitted to University of Nairobi.

Mbithi, P. M., & Maina, E. K. (2016). Factors influencing implementation of public financial regulations by national sub-county treasuries in Nakuru County, Kenya. International Journal of Economics, Commerce and Management, 280 - 289.

National Treasury. (2017). IFMIS re-engineering information. Nairobi: Government of Kenya.

Ndzovu, S. M., & Ng'ang'a, P. (2019). Influence of IFMIS on financial performance of Kwale County Government. Strategic journal of strategic change management, 22- 32.

Njogu, L. M. (2019). Automated Financial management systems and performance of Kenya's Judiciary. Unpublished MBA thesis submitted to USIU-A.

Oyinlola, M. O., Folajin, O. O., & Balogun, J. O. (2017). IFMIS and Nigeria public sector performance. Global journal of engineering, technology and management research, 32 - 39.