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USE OF IFMIS IN BUDGETARY CONTROLS AND FINANCIAL ACCOUNTABILITY IN COUNTY GOVERNMENTS IN WESTERN KENYA

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Abstract:
The purpose of this study was to determine the influence of the use of IFMIS in budgetary controls on the financial accountability of county Governments in Western Kenya. The study adopted a correlational research design. Primary data was collected using questionnaires. The study target population was 1110 county staff comprising Cabinet executive officers, IFMIS directors, finance staff, revenue officers, and planning and procurement staff. Simple random sampling was used to select 294 respondents. Reliability was tested through Cronbach Alpha, validity was tested through expert analysis and principal component factor analysis. SPSS was used to analyze descriptive and inferential statistics. Descriptive statistics consisted of frequencies. Inferential statistics consisted of Binary logistic regression analysis. Cox & Snell R Square was established as 0.699. Wald statistic was significant with p values of 0.19. Correlation analysis showed r = of 0.814. The binary logistic regression coefficient was $\beta = 2.049$, p-value .019 and Exp (β)= 7.76 for budgetary controls. It was recommended that the implementation of IFMIS should be strengthened and regularly reviewed to identify loopholes that still exist that reduce effectiveness. This would improve fiscal discipline by a very high percentage as shown by the odds ratio of budgetary controls which is greater than one. The government should enforce the use of IFMIS in budgetary controls. This will lead to minimal budget variance and budget deficits. Better ways that can make

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IFMIS adhered to in budgeting should therefore be enforced this will improve financial accountability as evidenced by the odd ratio of budgetary controls.

JEL: G21; G29; G38

Keywords: IFMIS, budgetary controls, county governments

1. Introduction

IFMIS is a fiscal tool for a government that bundles all financial management functions into one suite of applications. It is an Information Technology (IT) based budgeting and accounting system designed to assist government entities on how to plan budget requests, spend their budgets, manage and report on their financial activities, and deliver services to the public more efficiently, effectively and economically. IFMIS operates on a common structure and platform that will enable improved compatibility and consistency of fiscal and financial information, reducing governments' overall investment in the development of expensive accounting, systems in each government entity (The World Bank Group, 2021).

In the current situation, different African countries in response to the mounting accumulation of information and data that needs to be managed have been urged to reform their expenditure management systems through computerization of the entire sectors. However, the level of the usage of IFMIS still differs and is restricted to particular institutions at the country level like the Ministry of Finance. It is supposed to be used as a system that is common through institutions of the government, together with the more determined schemes for local, state and devolved governments (Otieno, Migiro, & Mutambara, 2017)

Accountability in public institutions involves giving a proper account of government funds and resources. Moreover, it implies an obligation on the part of the persons handling resources or holding public office or any other position of trust, to report on the intended and actual use of the resources. It was discovered that the problems of accountability make it impossible for the set objectives of an organization to be achieved (Omirin & Ajayi, 2018)

In the Kenya Vision 2030, the Government of Kenya projects that by the year 2030 public service will be "*a citizen-focused and results-oriented*" institution serving a rapidly growing economy and society. Furthermore, Kenya recognizes that a modern and results-focused public service is a prerequisite for the country's socio-economic transformation as envisaged under Vision 2030. To this end, measures have been initiated in order to improve public service delivery with e-government being one of them. The 2010 constitution sets out the overall guidelines on the management of public resources and provides for the enactment of specific legislation to effect the same, Through the Public Finance Management Act 2012 and other Public Finance legislation provisions in the Constitution of Kenya (Government of Kenya, 2018).

IFMIS was first launched in 2003 in Kenya, but only limited modules were introduced with other financial management processes remaining manual. IFMIS Re-engineering, which is an initiative of the Finance Ministry, aims to enhance efficiency and effectiveness in Public Kenya has 47 county governments following the enactment of the 2010 Constitution. The Government of Kenya initiated a project to develop a Master Plan for IT shared services across the 42 ministries and 175 local authorities. The Government concluded that the investments in the current IFMIS must be balanced with the requirements of the new constitution and the need for automation. Following the inception of County Governments and the election of governors, they started building their capacity to offer the services as stipulated in the constitution to their residents. County governments partly draw their funds from the central government and the local revenue collection. To ensure transparency, accountability, fairness and efficiency in the counties, in 2014, the national government rolled out the IFMIS system in counties. However, there are currently substantial challenges to the effect that IFMIS is still encountering at the county governments in the management of public funds.

A strong IFMIS enhances efficiency and transparency in raising, managing, and spending public resources which is a catalyst for economic growth and development. Despite IFMIS being implemented in county governments and other government agencies since 2014 financial accountability still remains a matter to address (Omirin & Ajayi, 2018). Health Department in Vihiga County revealed numerous cases of duplicate payments to suppliers and individuals totaling Kshs. 96,845,980. The rent arrears collection system of Bungoma County arising from public houses amounted to; Local Authorities 865,650 and National Government 6,079,500 with no structured billing of all the houses and updated tenant information. Migori County Executive had a budget of Kshs. 2,188,534,421 against the actual expenditure of Kshs. 2,502,472,079 but no approval was availed (Auditor General Report, 2019). County governance status report showed that in two-thirds of Counties corruption still manifests in different forms such as bribery, nepotism, procurement corruption, embezzlement and mismanagement of resources (Transparency International Kenya, 2014). With such misappropriations, the objectives of devolution cannot be fully achieved.

2. Literature Review

2.1 Conceptual Framework

Figure 1 presents the researcher's conceptualized use of IFMIS in budgeting and financial accountability of County governments in western Kenya.

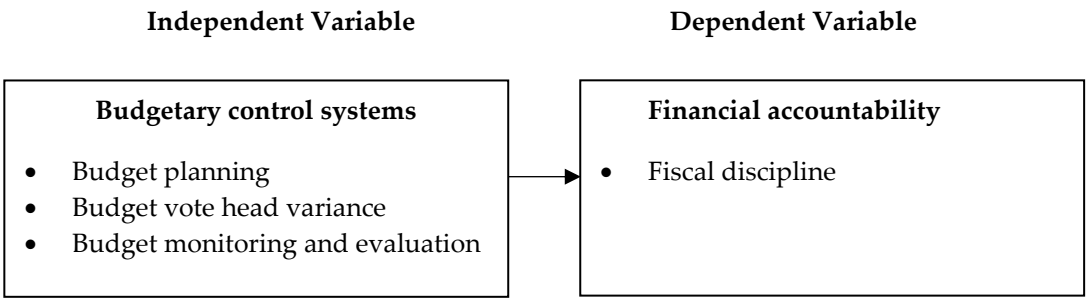

Figure 2.1: Conceptual Framework

2.2 Empirical Literature Review

A. Budgetary Control and Financial Accountability

Kibunja (2017) studied on budgetary process and financial performance of Murang'a county government, Kenya. The study collected both primary and secondary data. The study design adopted was an explanatory non-experimental descriptive research design. The target population was 2,074 staff members in the 13 operational departments. Systematic sampling was used to sample 83 staff members. The study established that budgetary processes involving planning, county implementation, monitoring and evaluation had a positive and significant relationship with the financial performance of the county government.

Opiyo (2017) sought to investigate the effect of Integrated Financial Management Information System on cash management in Kisumu County Government. The study used both primary and secondary data. Census was adopted where 75 respondents from Kisumu County Government treasury were used. The data was analyzed using the descriptive analysis method. The findings of the study showed a positive and significant relationship between IFMIS and cash management.

Simiyu (2018) sought to investigate the effect of Integrated Financial Management Information System on public finance management in Kilifi County, Kenya. The study employed a descriptive research design. The target population was users of IFMIS in the county governments. A census of the 67 county employees was done. Data was collected by means of a questionnaire and was analyzed using descriptive statistics. A stratified sampling design was used. The study used a questionnaire as a tool for data collection. The study found that budgetary control had a positive and significant relationship with financial accountability.

3. Methodology

3.1 Research Philosophy

Research philosophy relates to how the world works and focuses on reality, knowledge and existence. Our separate understanding of reality has an effect on how we acquire knowledge of the world thus our perception of reality, and how we gain knowledge, will affect the conduct of the research (Leitch, Hill & Harrison, 2014) This study was guided by positivism where the phenomena being observed lead to the construction of dependable data.

Positivists are researchers whose quantitative tools and methods entail quantifying and counting. Positivism enables one to apply statistical techniques in testing hypotheses to evaluate research data collected using quantitative research techniques (Creswell, 2016). Positivists believe reality is stable and hence can be observed from an objective viewpoint. They further argue that a phenomenon can be isolated and observations can be duplicated (Wilfred, 2016).

Positivism was appropriate for this study because based on the objectives, the current state or reality of financial accountability in national public secondary schools and how internal control systems may assist in improving it needed to be established. Dependable data needed to have been obtained so as to establish the relationship between the constructs of internal controls and financial accountability. Also, positivism was suitable since the nature of the data collected required both quantitate and qualitative analysis.

3.2 Research Design

A research design is a plan of circumstances for the collection, measurement, and analysis of data in a manner that aims to combine relevance to the research purpose with economy and procedure (Kothari & Gaurar, 2014). This study employed a correlational research design. This method was found appropriate because it enabled the researcher to establish the strength of the relationship between integrated financial management information systems and financial accountability using both qualitative and quantitative data.

3.3 Target Population

The study target population was 1110 county staff comprising of cabinet executive officers, IFMIS Directors, finance staff, revenue officers, planning officers and procurement staff. This target population was most appropriate because they carry out their activities directly by use of IFMIS.

Table 1: Target Population

Category	**Number**
Cabinet executive officers	4
IFMIS directors	4
Procurement staff	292
Finance staff	288
Planning officers	160
Revenue officers	362
Total	**1110**

Source: County Human Resource (2022).

3.4 Sample Size and Sampling Technique

The study adopted a proportionate sampling technique to select respondents to be used in the study. Slovin's formula will be used to estimate the required sample size. The Slovin's formula is shown below.

$$n = \frac{N}{1 + N * e\text{^}2}$$

Where:
n = Sample size,
N = Total population,
e = Error tolerance level (0.05).

Thus, the sample size will be calculated as:

$$n = \frac{1110}{1 + 1006 * 0.052} = \frac{1110}{3.775} = 294.03$$

n = approximately 294.

Proportionate sampling was used to estimate the respondents in each category. The sample population is shown in Table 2 below.

Table 2: Sample Population

Category	**Number**
Cabinet executive officers	1
Procurement staff	78
IFMIS directors	1
Finance staff	76
Planning officers	42
Revenue officers	96
Total	**294**

3.5 Research Instruments

The study used both primary and secondary data. Primary data was collected by the use of questionnaires. Secondary data will be collected through document analysis from the National Government Treasury, Auditor General's Report and the Department of Finance in all four counties of western Kenya. Primary data gave in-depth information which cannot be obtained from secondary data. Secondary data was useful in evaluating public records, reports, government documents, and opinions. Secondary data analysis is efficient and economical (Ngumi, 2013).

3.6 Reliability of the Research Instruments

Research instruments are deemed reliable if the degree of consistency is derived from subsequent tests. In an empirical inquiry, the reliability constant is normally calculated to ascertain the percentage of consistency. Cronbach Alpha test of 0.7 and beyond depicts consistency in the research instruments. If the value of alpha is high, it depicts proper consistency and the reverse is true. The study used Cronbach Alpha coefficient value to establish if the research instruments are reliable. This is shown in Table 3 below.

Table 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.893	.908	40

The results indicated in Table 3 above indicates that data for both the dependent and independent variables was reliable as confirmed by Cronbach's Alpha of 0.908.

3.7 Validity of the Research Instruments

Reliability refers to the magnitude to which the survey tools perform what they are required or purported to measure. Validity is concerned with the tolerability of the tools, in this case, the study ought to have enough questions to arrive at a conclusive end (Kishton & Widaman, 2017). In this study, the questionnaires were checked for validity through the expert's opinion that is supervisors and other experts from the department to ensure the questions cover the required information and that the statements they contain will address the study's intentions. Component analysis was also used to test validity. The results are shown in Table 4 below.

Table 4: Component Matrix[a]

	Component
There is Fiscal Discipline	.952
Budgetary Controls	.913
Extraction Method: Principal Component Analysis.	

From Table 4 above, the component matrix indicates that the questions for both the dependent and independent variables were able to measure what they ought to measure with a high degree of accuracy as evidenced by the components of; 0.952, 0.913, 0.941 and 0.828 for fiscal discipline, budgetary controls, financial reporting and internal controls respectively.

3.8 Data Collection Procedure

Questionnaires were administered to employees in each County by use of research assistants. The respondents were given two weeks to fill out the questionnaires after which they were collected back by the research assistants. Financial statements were also requested from each county government for analysis.

3.9 Data Analysis and Presentation

SPSS was used to analyze descriptive and inferential statistics. Descriptive statistics comprised of frequencies. Inferential statistics consisted of correlation and binary logistic regression analysis. Data was presented using tables.

$Y = \beta_0 + \beta_1 BC + \varepsilon$ ……………………………………………………………………(3.1)

$\begin{cases} 1 \\ 0 \end{cases}$ 1 if there is fiscal discipline, 0 if there is no fiscal discipline

where:
Y = Financial accountability (fiscal discipline),
BC = budgetary controls,
ε = error term,
B_o - represents regression constant,
β_1 - represents the slope coefficient.

3.10 Ethical Consideration

Clearance and permission for research information gathering were sought from the directorate of graduate studies of Kaimosi Friends University College. Further, a research permit was obtained from National Commission for Science Technology and Innovation (NACOSTI). Responses were treated with confidentiality and privacy. Further, all data, notes and information obtained in the study whether written or digital were encrypted and stored securely in a locked place accessed by the researcher only. The respondents were assured of the confidentiality of the data provided.

4. Results and Discussion

4.1 Response Rate

294 questionnaires were distributed to respondents. A total of 288 questionnaires out of 294 were returned which represents 97.93 % of the targeted sample respondents. This was deemed adequate for the study. This response rate was considered adequate based on suggestions by various scholars who propose that a response rate of above 60% is adequate. This information is captured in Table 5 below.

Table 5: Response Rate

Targeted respondents	Returned questionnaires	Response rate
294	288	97.95%

4.2 Background Information

On the question of the highest level of qualification. The majority of respondents (30.2%) had a bachelor of commerce, 23.6% of respondents had a master's in business administration, 20.8% of the respondents had CPA(K), 14.2% of respondents had a PhD while 11.1% had accounting technicians Diploma (ATD). This is a clear indication that many of the employees in the accounting and finance department and other sections dealing directly with IFMIS have the right skills to carry out their duties thus great efficiency and effectiveness are expected in these county governments. This is shown in Table 6 below.

Table 6: Highest Level of Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
ATD	32	11.1	11.1	11.1
CPA K	60	20.8	20.8	31.9
BCOM	87	30.2	30.2	62.2
MBA	68	23.6	23.6	85.8
PhD	41	14.2	14.2	100.0
Total	**288**	**100.0**	**100.0**	

Table 7 below shows responses to the question on the number of years served in the county government. The majority of them had served in the county government for either 3-4 years (30.2%) or 5 years (27.8%). This depicts that the respondents are well versed with the county activities and processes and thus were able to give objective information on questions asked.

Table 7: Number of Years Served

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 1 year	15	5.2	5.2	5.2
	1-2 years	61	21.2	21.2	26.4
	3-4 years	87	30.2	30.2	56.6
	4-5 years	80	27.8	27.8	84.4
	Above 5 years	45	15.6	15.6	100.0
	Total	**288**	**100.0**	**100.0**	

4.3 Descriptive Statistics

Respondent's opinion was sought on whether budget planning is effectively done through the use of IFMIS. The majority (52.8%) of the respondents strongly agreed, 26% of the respondents agreed that budget planning is effectively done through the use of IFMIS, 11.5% of the respondents were neutral and 9.7% disagreed or strongly disagreed. These results indicate that in many county governments budgeting is done procedurally through the use of IFMIS thus all stakeholders and all aspects are covered in the budgets. Such county governments are therefore bound to have minimal budget variances and budget deficits. However, some counties still do not effectively use IFMIS in budgeting and thus may experience budget deficits and budget variances. This is shown in Table 8 below.

Table 8: Budget Planning if Effectively Done Through Use of IFMIS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	11	3.8	3.8	3.8
	Disagree	17	5.9	5.9	9.7
	Neutral	33	11.5	11.5	21.2
	Agree	75	26.0	26.0	47.2
	Strongly agree	152	52.8	52.8	100.0
	Total	**288**	**100.0**	**100.0**	

Respondent's opinion was sought on whether IFMIS enhances adherence to budget vote heads to eliminate variances. 61.8 % of the respondents either strongly agreed or agreed that IFMIS enhances adherence to budget vote head. This implies that if county governments were to prepare budgets using IFMIS guidelines, then budget variances would greatly reduce and hence an improvement in financial accountability. This is shown in Table 9 below.

Table 9: IFMIS Enhance Adherence to Budget Vote Heads

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	18	6.3	6.3	6.3
	Disagree	39	13.5	13.5	19.8
	Neutral	53	18.4	18.4	38.2
	Agree	115	39.9	39.9	78.1
	Strongly agree	63	21.9	21.9	100.0
	Total	**288**	**100.0**	**100.0**	

A question was asked to get respondents' opinions on whether IFMIS facilitates frequent monitoring and regulation of budgets. The majority of the respondents (64.9%) either strongly agreed or agreed while 31.1% were either neutral, disagreed or strongly disagreed that IFMIS facilitates frequent monitoring and regulation of budgets. This is a clear indication that if IFMIS is effectively used, close monitoring of budget variances and lack of adherence to voting heads will be minimal. Thus, finances will be effectively and efficiently used for the intended purposes and any deviations will be detected early enough and corrected in good time. The results are shown in Table 10 below.

Table 10: IFMIS Facilitates Frequent Monitoring and Regulation of Budgets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	23	8.0	8.0	8.0
	Disagree	30	10.4	10.4	18.4
	Neutral	48	16.7	16.7	35.1
	Agree	98	34.0	34.0	69.1
	Strongly agree	89	30.9	30.9	100.0
	Total	**288**	**100.0**	**100.0**	

Regarding the question of whether IFMIS enhances the evaluation of budget variances, many of the respondents (64.5%) agreed or strongly agreed. This means that if IFMIS is effectively implemented and monitored, budget variances will be detected as soon as they occur. Such deviations can therefore be investigated and acted upon. Finances will therefore be used for the intended purpose. Citizens and other service providers will therefore get quality services and the government will get value for money disbursed to these county governments. Table 11 below shows the results.

Table 11: IFMIS Enhances Evaluation of Budget Variances Acted Upon

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	23	8.0	8.0	8.0
	Disagree	36	12.5	12.5	20.5
	Neutral	43	14.9	14.9	35.4
	Agree	109	37.8	37.8	73.3
	Strongly agree	77	26.7	26.7	100.0
	Total	**288**	**100.0**	**100.0**	

Respondents were tasked to give their opinion on whether measures are in place through IFMIS to detect any deviations in expenditure. 29.5 % of the respondents strongly agreed, 34% agreed while 36.45 were either neutral, disagreed or strongly disagreed. This depicts that in many county governments IFMIS is effectively used to detect deviations in expenditure. Such County governments are therefore likely to adhere to budget vote heads and thus all planned expenditures will be executed. Any suspected deviations will be corrected in good time. This is depicted in Table 12 below.

Table 12: Measures are in place through IFMIS to detect budget deviations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	17	5.9	5.9	5.9
	Disagree	28	9.7	9.7	15.6
	Neutral	60	20.8	20.8	36.5
	Agree	98	34.0	34.0	70.5
	Strongly agree	85	29.5	29.5	100.0
	Total	**288**	**100.0**	**100.0**	

On the question of whether effective budget planning through IFMIS enhances financial accountability, 67.7% of those who responded either agreed or strongly agreed with only 32.35 being either neutral, disagreeing or strongly disagreeing. This is a confirmation that if effective planning is done through IFMIS then budget variances would be minimal. Adherence to vote heads would be highly embraced and deviations will be detected early enough thus county government would greatly improve on fiscal discipline. This is illustrated in Table 13 below.

Table 13: Effective Budget Planning by IFMIS Enhances Financial Accountability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	13	4.5	4.5	4.5
	Disagree	35	12.2	12.2	16.7
	Neutral	45	15.6	15.6	32.3
	Agree	115	39.9	39.9	72.2
	Strongly agree	80	27.8	27.8	100.0
	Total	**288**	**100.0**	**100.0**	

The study also sought what the respondents perceived of the question that IFMIS facilitates the input of all stakeholders in budgeting, the majority (74.3%) of the

respondents strongly agreed, or agreed that IFMIS facilitates the input of all stakeholders in budgeting, 14.9 % of the respondents were neutral while 10.7% disagreed or strongly disagreed. This confirms that the use of IFMIS ensures that stakeholders are included in the budgeting process thus their views will be taken into consideration, duplication of expenditure will be therefore eliminated and citizens will get the services that are primary and basic to them. Table 14 below illustrates the results.

Table 14: IFMIS Facilitates Input of all Stakeholders in Budgeting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	2.4	2.4	7.3
	Disagree	24	8.3	8.3	21.3
	Neutral	43	14.9	14.9	40.8
	Agree	84	29.2	29.2	70.0
	Strongly agree	130	45.1	45.1	100.0
	Total	**288**	**100.0**		

Respondents were also asked to give their opinion on whether IFMIS helps in the identification and prevention of variances. 59% of the respondents either agreed or strongly agreed that IFMIS helps in the identification and prevention of variances while 41% of respondents were either neutral, disagreed or strongly disagreed. This is an indication that to a large extent, IFMIS is effective in the identification and prevention of budget variances however there are still loopholes that still exist that make this not to be effective thus the government should look into such loopholes to improve the effectiveness of IFMIS. This has been represented in Table 15 below.

Table 15: IFMIS Helps in the Identification and Prevention of Variances

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	20	6.9	6.9	6.9
	Disagree	36	12.5	12.5	19.4
	Neutral	62	21.5	21.5	41.0
	Agree	96	33.3	33.3	74.3
	Strongly agree	74	25.7	25.7	100.0
	Total	**288**	**100.0**	100.0	

Further, respondents were asked to give opinions on whether monitoring the regulation of budgets through IFMIS enhances financial accountability. Many respondents (69.8%) agreed or strongly agreed with the statement while the rest (30.2%) were negative about the statement. This suggests that if IFMIS is made more effective, budgets will be regulated and deviations will be eliminated. Adherence to budget vote heads will be a priority thus fiscal discipline would improve. Table 16 below represents the information.

Table 16: Monitoring Regulation of Budgets Enhances Financial Accountability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	12	4.2	4.2	4.2
	Disagree	19	6.6	6.6	10.8
	Neutral	56	19.4	19.4	30.2
	Agree	104	36.1	36.1	66.3
	Strongly agree	97	33.7	33.7	100.0
	Total	**288**	**100.0**	**100.0**	

The last construct of this objective asked respondents whether IFMIS has improved the financial evaluation of budgets in county governments. The majority of the respondents (64.9%) supported this statement while 35.1% of the respondents were neutral, disagreed or strongly disagreed. This is a clear indication that the introduction of IFMIS has to a large extent greatly assisted County governments to evaluate their budgets, deviations are thus detected early enough and necessary corrections are made in good time. However much still needs to be done to ensure that IFMIS is able to accurately evaluate budgets in county government to improve fiscal discipline. These results are shown in Table 17 below.

Table 17: IFMIS Improves Evaluation of Budgets in Count Governments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	22	7.6	7.6	7.6
	Disagree	31	10.8	10.8	18.4
	Neutral	48	16.7	16.7	35.1
	Agree	108	37.5	37.5	72.6
	Strongly agree	79	27.4	27.4	100.0
	Total	**288**	**100.0**	**100.0**	

On the dependent variable, respondents were asked a general question on whether there is fiscal discipline in county governments. The majority (51.0%) of the given a "No' answer while 49.0% of the respondents gave "Yes" answer this implies that more than half of the counties in western Kenya lack fiscal discipline and by extension financial accountability. This lack of fiscal discipline may lead to unsupported expenditures, budget variances and failure to adhere to statutory regulations. This may be the reason why many of the county governments have qualified audit reports. This is depicted in Table 18.

Table 18: There is Fiscal Discipline

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	147	51.0	51.0	51.0
	Yes	141	49.0	49.0	100.0
	Total	**288**	**100.0**	**100.0**	

4.4 Correlation Analysis

To assess the strength of the association between the study variables, Pearson's correlation coefficients were generated for each pair of variables. The correlation coefficients normally range from -1.0 to +1.0 and the closer the coefficient is to +1 or -1, the more closely the two variables are related. A correlation of +1 implies that there is a perfect positive linear relationship between variables (Sekran U., Bougie & Roger, 2010). In this study, the correlation coefficients were tested at the 5% significance level of significance based on a 2-tailed test. The rejection criterion was thus based on a p-value of 0.025 above which the association is deemed to be insignificant and vice versa. Table 19 below shows the results.

Table 19: Pearson's Correlations

	Fiscal Discipline	**Budgetary Controls**
Fiscal Discipline	1 (.000)	.814** (.000)
Budgetary Controls	.814** (.000)	1 (.000)

Table 19 shows a positive significant association between fiscal discipline and the independent variable budgetary controls with r = 0.8140 p-value .000< .025 which is significant.

4.5 Binary Logistic Regression

An omnibus test of goodness of fit was run to determine whether the model on budgetary controls and financial accountability exhibit a good fit to the data with a null hypothesis that the model does not exhibit a good fit to the data. The chi-square test results indicate that the model exhibits a good fit for the data since it had a p-value of 0.000< 0.05. Thus, the null hypothesis that the model does not exhibit a good fit to the data was rejected. The results are shown in Table 20 below.

Table 20: Omnibus Tests of Model Coefficients Budgetary Controls

		Chi-square	**df**	**Sig.**
Step 1	Step	49.354	9	.000
	Block	49.354	9	.000
	Model	49.354	9	.000

The model summary as evidenced by Cox & Snell R Square was generated to estimate the proportion of change in financial accountability explained by budgetary controls. The results show that budgetary controls explain 15.7 % of the change in financial accountability. Table 21 depicts the results.

Table 21: Model Summary Budgetary Controls and Fiscal Discipline

Step	**-2 Log likelihood**	**Cox & Snell R Square**
1	349.552[a]	.157

For the ten constructs of budgetary controls; budget monitoring, budget evaluation, detection of deviations, and identification of variances were established to significantly contribute to the model with p values of 0.037, 0.013, 0.002 and 0.037 respectively. Evaluation of variances, budget planning, vote heads, stakeholder involvement, budget regulations and budget evaluations did not significantly contribute to the model depicted by p values of more than 0.05 as shown in Table 22 below.

Table 22: Variables in the Equation Budgetary Controls and Fiscal Discipline

		β	S.E.	Wald	Sig.	Exp(β)
Step 1[a]	Budget	-.027	.104	.069	.793	.973
	Vote	-.001	.120	.000	.993	.999
	Monitoring	.225	.108	4.344	.037	1.253
	Evaluation	.299	.121	6.106	.013	1.348
	Deviations	.391	.127	9.428	.002	1.478
	Effective	.065	.116	.316	.574	1.067
	Stakeholders	-.008	.110	.006	.940	.992
	Identification	.247	.118	4.349	.037	1.280
	Regulation	.041	.121	.117	.732	1.042
	Improved	.017	.112	.023	.880	1.017
	Constant	-4.555	.906	25.270	.000	.011

Table 22 above depicts a constant of -4.555 implying that the log-likelihood that fiscal discipline will reduce will be -4.555 in county governments where there are no budgetary controls while Exp (β) .011 = imply that the odds/likely hood that fiscal discipline will reduce in county governments where there is no budgetary will be .011 times with a probability of 0.011.

The results also depict β = 0.225 for monitoring implying that the log-likelihood that fiscal discipline will improve when monitoring is done through IFMIS in county governments is 0.225, while the odds/likely hood that fiscal discipline will improve when monitoring is done through IFMIS in county governments will be 1.125 times with a probability of 0.53.

β = 0.299 depicts that the log-likelihood that fiscal discipline will improve when budget evaluation is done through IFMIS in county governments is 0.299, while the odds/likely hood that fiscal discipline will improve when budget evaluation is done through IFMIS in county governments is 1.35 times with a probability of 0.57.

β = 0.391 depicts that the log-likelihood that fiscal discipline will improve in county governments where deviations are detected and acted upon through the use of IFMIS is 0.391, while the odds/likely hood that fiscal discipline will improve in county governments where deviations are detected and acted upon is 1.48 times with a probability of 0.59.

The results also depict β = 0.25 for the identification of variances implying that the log-likelihood that fiscal discipline will improve when *the* identification of variances is done through IFMIS in county governments is 0 .25, while the odds/likely hood that fiscal

discipline will improve when *the* identification of variances is done through IFMIS in county governments is 1.28 times with a probability of 0.56.

The case processing summary shows the constructs of the variables included in the model. As depicted in Table 23 below, all the constructs were included in the model with no missing cases. This confirms the accuracy of the model as there are no missing cases.

Table 23: Case Processing Summary

Unweighted Cases[a]		**N**	**Percent**
Selected Cases	Included in Analysis	288	100.0
	Missing Cases	0	.0
	Total	288	00.0
Unselected Cases		0	.0
Total		**288**	**100.0**

An omnibus test of goodness of fit was run to determine whether the overall model on IFMIS and financial accountability exhibited a good fit to the data with a null hypothesis that the model does not exhibit a good fit to the data. The chi-square test results indicate that the model exhibits excellent fit to the data evidenced by a p-value of 0.000< 0.05. Thus, the null hypothesis that the model does not exhibit a good fit to the data was rejected. The results are shown in Table 24 below.

Table 24: Omnibus Tests of Model Coefficients

		Chi-square	**df**	**Sig.**
Step 1	Step	346.056	3	.000
	Block	346.056	3	.000
	Model	346.056	3	.000

A classification table was generated to estimate the percentage accuracy in the classification of the percentage of cases that can be correctly classified as "no" there is no fiscal discipline and “yes” there is a fiscal discipline with the independent variables added. The cut value is .500". This means that if the probability of a case being classified into there is fiscal discipline "yes" category is greater than .500, then that particular case is classified into the "yes" category. Otherwise, the case is classified as there is no fiscal discipline ("no" category).

The table also shows sensitivity, which is the percentage of cases that had the observed characteristic (i.e., "yes" for there is fiscal discipline) which were correctly predicted by the model (true yes) this was established to be 132 out of 135 which is an average of 97.8% accuracy with only 2.2 % “yes” being predicted as “no”. The study also illustrates specificity, which is the percentage of cases that did not have the observed characteristic (i.e., "no" for no fiscal discipline) and was also correctly predicted as not having the observed characteristic (true no). This was established to be 148 out of 153 this is an average of 96.7 % with only 3.3% of cases where there is no fiscal discipline being predicted as having fiscal discipline. The overall accuracy of the model prediction stood

at 97.2% which shows a high degree of accuracy in the prediction of the dependent variables by the independent variables. These results are shown in Table 25 below.

Table 25: Classification Table[a]

Observed			Predicted		
			There is Fiscal Discipline		Percentage Correct
			Yes	No	
Step 1	There is Fiscal Discipline	No	148	5	96.7
		Yes	3	132	97.8
	Overall Percentage				97.2
a. The cut value is .500					

The overall model summary as evidenced by pseudo R^2 (Cox & Snell Square) show that IFMIS explains 69.9 % of the variation in financial accountability. The remaining 30.1 % is explained by variables, not in the overall model. This is shown in Table 26 below.

Table 26: Cox & Snell R Square

Step	-2 Log likelihood	Cox & Snell R Square
1	52.071[a]	.699

The independent variable contributed significantly to the model as shown by "Wald" statistic and evidenced by p values of 0.19, 0.00, and 0.022 for budgetary controls. The results indicate that the odds that fiscal discipline will improve is 7.76 times more likely in county governments where there are budgetary controls than those lacking budgetary controls. The results are as shown in Table 27 below.

Table 27: Variables in the Equation IFMIS and Fiscal Discipline

		β	S.E.	Wald	Df	Sig.	Exp(β)
Step 1[a]	BC	2.049	.875	5.476	1	.019	7.756
	Constant	-5.819	.996	34.149	1	.000	.003

From the results in Table 27 above an overall logistic regression equation, 4.1 below was extracted.

$$Y = -5.819 + 2.049\ \text{BC} \quad \text{..... (2)}$$

$$Y = \begin{cases} 1 \\ 0 \end{cases}$$ 1 if there is fiscal discipline, 0 if there is no fiscal discipline

The results above indicate *C=-5.819* p-value .000 < 0.05 which is significant. This implies in the absence of budgetary controls, the Log likelihood of fiscal discipline decreasing will be 5.819, the odds/likelihood of fiscal discipline decreasing will be 0.003 times and the probability of fiscal discipline decreasing will be 0.0029.

β of 2.049, p-value .019 < 0.05 which is significant depicts that the log-likelihood that fiscal discipline will improve when budgetary controls are in place is 2.049**.** *Exp (β)* of 7.76 imply that the odds/likelihood that fiscal discipline will improve is 7.76 times more likely in county governments where there are budgetary controls than those lacking budgetary controls. Further with budgetary controls in place, the probability of fiscal discipline improving is 0.88. Thus, the null hypothesis that budgetary controls have no significant influence on financial accountability was rejected.

These results are in line with Kibunja (2017), Opiyo (2017) and Simiyu (2018) whom all established that budgetary control had a positive and significant relationship with financial accountability.

5. Conclusion

Budgetary controls, Pearson's correlation coefficient was established as r = 0.814, p-value 0.000< 0.05 which is, therefore, significant at a 5% level of significance. The correlation analysis results show a significant positive association between budgetary controls and fiscal discipline which was used to measure financial accountability. The binary logistic regression coefficient was β = 2.049, p-value .019 which is significant and *Exp (β)* or odds ratio of 7.76. This implies that the odds that fiscal discipline will improve is 7.76 times more likely in county governments where there are budgetary controls than those lacking budgetary controls for budgetary controls. It was therefore concluded that budgetary control has a positive significant influence on financial accountability.

6. Recommendation

The government should enforce the use of IFMIS in budgetary controls. This will lead to minimal budget variance and budget deficits. It will also lead to adherence to budget vote heads. Thus, finances will be effectively and efficiently used for the intended purposes and any deviations will be detected early enough and corrected in good time. Regular appraisal of IFMIS should also be done to identify elements that need improvement to make it effective in budgeting. Better ways that can make IFMIS adhered to in budgeting should therefore be enforced this will improve financial accountability by every high percentage as evidenced by the odd ratio of budgetary controls.

Conflict of Interest Statement

We as the authors declare no conflict of interest.

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