Control Activities and Financial Accountability Insight from the Perspective of Kenyan National Public Secondary Schools

Omondi Margaret Atieno
(Department of Accounting and Finance, Kaimosi friends University College, Kenya)
Corresponding Author: Omondi Margaret Atieno

Abstract: *This study was aimed at estimating the effect of control activities on financial accountability in national public secondary school in Kenya. The study was carried out in government national secondary schools. Survey design was used on a population of; one hundred and three (103) principals, one hundred and three (103) bursars and one hundred and three (103) Board of Management chairs. Convenience and simple random cross section were used to select the respondents. Questionnaires were employed to obtain primary data while secondary statistics were collected through audited financial statements. Consistency of the research tools was tested through Cronbach's Alpha. Construct validity was assessed through factor analysis. Both descriptive and inferential statistics were used to analyze the data collected. The dimensions of internal control activities were found to have a significant joint effect on financial accountability. It was therefore recommended that Segregation of duties should be strengthened with clear roles of the principal, bursar, other BOM members, storekeeper and other employee and that authorization of activities should be mandatory.*

Aims and Objectives: *To estimate the effect of control activities on financial accountability in national public secondary school in Kenya.*

Methodology: *Survey design was used on; one hundred and three principals, one hundred and three bursars and one hundred and threeBoard of Management chairs. Convenience and simple random cross section were used in selectionof the respondents. Questionnaires were employed to obtain primary data while secondary statistics were collected through audited financial statements.Both descriptive and inferential statistics were used in data analysis the data*

Results:*The dimensions of internal control activities were found to have a significant joint effect on financial accountability. The regression estimates of the regression model show that Monitoring has a significant effect on financial accountability. The tableshows a significant regression coefficient estimate of Monitoring (β =0.616, t=5.020, p-value = 0.000). The P-value of the coefficient estimate is less than 0.05 implying significance at 95% level of confidence.*

Conclusion:*internal control activities have a significant effect on financial accountability and therefore should be strengthened.*

I.   Introduction

Control activities are the actions established through course of action and processes that help support management's directions to mitigate risks so as to the realize intentions are set. They are accomplished through deterrent or detective measures. They may be deterrent or detective in nature and may encompass a range of manual and automated activities such as authorizations and approvals, verifications, reconciliations, and business performance reviews. Segregation of duties is typically built into the selection and development of control activities. Where segregation of duties is not practical, management selects and develops alternative control activities (Garcia, 2004).

II.   Material and Methods

Target Population: The target population for this study was 309, consisting of; 103 heads, 103 accountants, 103 board chairs.

Sample Population: The sample was composed of 246 respondents. Distributed across 82 principals, 82 bursars, and 82 BOM chairs.

Research Design: A descriptive study design was adopted for this study. This was because the sample was spread all over the country and many respondents were to be reached for accuracy and objective conclusions.

Data Collection Instruments: Opinion poll was used to obtain primary data. Document analysis was employed in collecting secondary data.

Reliability Analysis: Internal consistency was measured by use of Cronbach alpha where values of 0.70 or higher was considered sufficient.

Data Analysis and Presentation: Simple and multiple regression analysis were used to gauge the relationship between variables. Normality was tested using Jacque Bera test, autocorrelation was tested using Durbin Watson statistic, multicollinearity was tested using variance inflation factors. Heteroscedasticity was tested using a scatter plot and a Breach Pagan test. Data was presented using tables, charts, and graphs.

III. Results

Response rate: 222 questionnaires out of 246 were returned demonstrating 90.24% of the targeted sample respondents.

Validity Results: The KMO statistics for all the variables were found to be more than 0.7 suggesting the appropriateness of data for the CFA models. Sampling sufficiency was scrutinized by Bartlett's. All Bartlett's statistics had p-values of 0.000 inferring acceptability and suitability as shown in table 1.

Table 1: KMO and Bartlett's tests

	Items retained	AVE	Squared Correlations	KMO	Bartlett's test χ^2	df	P-value
Monitoring	6	0.578	0.246	0.529	37.544	15	0.001
Financial Acc	7	0.514	0.188	0.6	62.261	21	0.000

Reliability Results

Cronbach's alpha was used in this study to check on the reliability. All the study constructs had reliability measures above 0.7 from all the items used to measure them. Constructs that had indicators that showed inadequate item-total correlations were further expunged this is shown in table 4.2.

Table 2: Cronbach's Alpha Reliability Table

Construct	Number of Items	Cronbach alpha	Number of items retained	Cronbach alpha after deletion	Conclusion
Monitoring	10	0.623	6	0.745	Reliable
Financial Acc	11	0.697	7	0.801	Reliable

Descriptive statistics of financial accountability

Secondary data was used to calculate the current ratio, debt collection rate, debt ratio and change in public equity. The current ratios of the tuition, operation and school fund accounts had overall means of 1.742, 1,749 and 1.700 respectively. The standard deviations were; 1.073, 0.99 and 0.798 respectively. The debt ratios components for the tuition, operations, and school fund accounts had an overall mean of 0.460, 0.503 and 0.481 respectively. The standard deviations for tuition, operations and school fund were 0.199, 0.222 and 0.201 respectively. The debt collection rate had an overall mean collection rate of 0.797 and a standard deviation of 0.801. Change in public equity for the tuition, operations and school fund accounts which were measured as percentage changes and had overall means of 0.113, 0.121 and 0.134 respectively with standard deviations of 0.125, 0.212 and 0.134 respectively. Table 3 shows the descriptive analysis of financial accountability.

Table 3: Descriptive analysis of financial accountability

Variable	Mean	Std. Dev.	Min	Max	Observations	
Current ratio Tuition Account	1.742	1.073	0.000	5.002	N =	136
Current ratio Operation Account	1.749	0.999	0.501	5.001	N =	136
					n =	68
					T =	4
Current ratio School Fund	1.700	0.798	0.889	4.615	N =	136
					n =	68
					T =	4
Debt collection rate	0.797	0.801	0.000	6.342	N =	136
					n =	68
					T =	4
Debt ratio Tuition Account	0.460	0.199	0.000	1.000	N =	136
					n =	68
					T =	4

Debt ratio Operation Account	0.503	0.222	0.000	1.501	N =	136	
					n =	68	
					T =	4	
Debt ratio School Fund	0.481	0.201	0.000	0.844	N =	136	
					n =	68	
					T =	4	
Change in equity Tuition Account	0.113	0.125	-1.000	0.356	N =	136	
					n =	68	
					T =	4	
Change in equity Operation Account	0.121	0.212	-0.903	1.101	N =	136	
					n =	68	
					T =	4	
Change in equity School Fund	0.134	0.148	-0.224	0.919	N =	272	
					n =	68	
					T =	4	

Ten constructs were used to measure control environment and gave the results shown in table 4.

Table 4: Indicators Measuring Control Environment

Indicator		1	2	3	4	5	Total
sf1	Freq.	6	10	16	71	101	204
	Percent	2.9%	4.8%	7.7%	34.6%	50.0%	100.0%
sf2	Freq.	10	14	47	74	59	204
	Percent	4.8%	6.7%	23.1%	36.5%	28.9%	100.0%
sf3	Freq.	12	18	37	96	41	204
	Percent	5.8%	8.7%	18.3%	47.1%	20.2%	100.0%
sf4	Freq.	8	10	31	88	67	204
	Percent	3.9%	4.8%	15.4%	43.3%	32.7%	100.0%
sf5	Freq.	14	8	18	94	70	204
	Percent	6.7%	3.9%	8.7%	46.2%	34.6%	100.0%
sf6	Freq.	10	14	18	86	76	204
	Percent	4.8%	6.7%	8.7%	42.3%	37.5%	100.0%
sf7	Freq.	6	20	39	90	49	204
	Percent	2.9%	9.6%	19.2%	44.2%	24.0%	100.0%
sf8	Freq.	12	12	12	78	90	204
	Percent	5.8%	5.8%	5.8%	38.5%	44.2%	100.0%
sf9	Freq.	4	12	23	96	69	204
	Percent	1.9%	5.8%	11.5%	47.1%	33.7%	100.0%
Sf10	Freq.	22	10	16	56	100	204
	Percent	10.6%	4.8%	7.7%	27.9%	49.0%	100.0%

Factor analysis was used to generate factor scores that were used as latent variables to assess the influence of Monitoring on financial accountability using simple linear regression. A scatter plot of financial accountability against monitoring in figure 1 shows an increasing pattern which is an indication of a positive linear relationship between Monitoring and financial accountability.
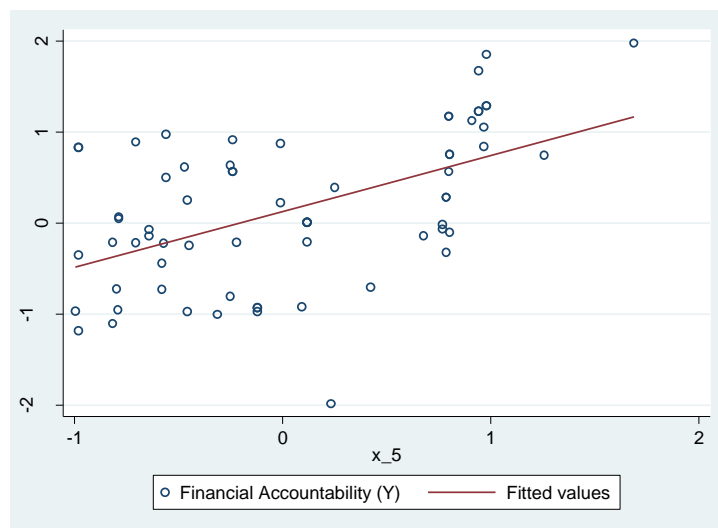

Figure 1: Monitoring and financial accountability

A bivariate simple linear regression was fitted to assess the influence of Monitoring on financial accountability. The results for the regression model in table 4.2 Show an R-square of 0.276 implying that 27.6% of the variation in financial accountability is explained by the one predictor model. This further implies that 63.7% of the variation in growth is not explained in this model but by other factors not included in the model.

The Analysis of Variance (ANOVA) had an F-statistic of 25.16 which has a p-value of 0.000. The p-value of the F-statistic is less than 0.5 showing that the model on the influence of Monitoring on financial accountability is generally significant. This is means that the coefficient of Monitoring in the model is at least not equal to zero. Diagnosis of this bivariate model showed that the classical assumptions are also not violated in the simple regression model. The normality assumption was met as shown by the JB statistic which has a p-value of 0.421 that is greater than 0.05. The BP chi-square statistic for also had a p-value of 0.646 which is greater than 0.05 implying that the residuals to this model also exhibit homoscedasticity. The DW statistic generated for this model is also greater than the relative upper limit of the tabulated DW value at 0.05 implying independence of the residuals.

The regression estimates of the regression model show that Monitoring has a significant effect on financial accountability. The tableshows a significant regression coefficient estimate of Monitoring (β =0.616, t=5.020, p-value = 0.000). The P-value of the coefficient estimate is less than 0.05 implying significance at 95% level of confidence. This significant estimate shows that a unit increase in the levels of Monitoring in the national school set-up would increase the levels of the financial accountability index by 0.616 units through current ratio, debt collection rate, debt ratio and change in public equity.

Table 4: Mixed effect model of Monitoring and financial accountability

ANOVA	Source	SS	df	MS	Number of obs	=	68
	Model	12.806	1	12.806	F(1, 66)	=	25.160
	Residual	33.592	66	0.509	Prob > F	=	0.000
	Total	46.398	67	0.693	R-squared	=	0.276
Model	BP chi2(1)	= 0.21	JB chi2(2)	= 1.73	Adj R-squared	=	0.265
diagnostics	Prob > chi2	= 0.646	Prob > chi2	= 0.421	Root MSE	=	0.713
	D W values	1.813	LL =1.583	UL= 1.641			
FA (Y)	**Coef.**	**Std. Err.**	**t**	**P>t**	**[95% Conf. Interval]**		
Monitoring X_5	0.616	0.123	5.020	0.000	0.371		0.861
_cons	0.128	0.087	1.480	0.145	-0.045		0.301

HO$_1$: There no significant effect of Monitoring on financial accountability in national public secondary schools in Kenya. The P-value of the t-statistic of the coefficient estimate of Monitoring was 0.000 which was less than 0.05 implying a significant effect of Monitoring on financial accountability. The null hypothesis was therefore rejected and a conclusion drawn that Monitoring has a significant effect on financial accountability in national public secondary schools in Kenya. The equation below is generated from the model.

$$Y = 0.616X_5 + \varepsilon$$

……………………………………………………………………………………………...**Equation 4.1**

IV. Discussion

The first variable sought to find out among other indicators the perception of the respondents that there are independent process checks of controls activities on ongoing basis. Bulk (50%) of the respondents strongly agreed. The results imply that in majority national public secondary schools, there are independent process checks of controls activities on ongoing basis, monitoring is therefore done consistently and thus risk prone areas can be easily identified and preventive measures undertaken. However in some few schools, independent process checks of controls activities on ongoing basis is lacking.

On whether internal reviews of implementation of internal controls are conducted periodically, 36.5% of the respondents agreed that internal reviews of implementation of internal controls are conducted which imply that in majority of the schools, internal reviews of implementation of internal controls are conducted periodically. Though in about 10% of the national public secondary schools, internal reviews of implementation of internal controls are not conducted periodically.

Regarding frequently of auditors in schools, many (47.1%) of the respondents agreed, this means that in majority of the national public schools, the external auditors visit the school frequently. However in some few schools, external auditors do not visit the school frequently.

About auditor's commitment and objective reports, a good number, 43.3% supported that, many external auditors are committed and give objective reports. But there is a small percentage of external auditors who are not committed to their work and do not give objective reports. Such external auditors may ask for bribed to cover-up fraud

The question on timely review of audit reports role in improving financial accountability saw 46.2% agree that timely review of audit reports assist in improving financial accountability.

The results also determined the distribution of the indicator that the BOM monitor the actual uses of funds budgeted and approved. Majority (42.3%) of the respondents agreed, 79.8% of the respondents agreed or strongly agreed that the BOM monitor the actual uses of funds budgeted and approved, 8.7% of the respondents were neutral while 11.5% disagreed or strongly disagreed. From the results it can be concluded that in majority of the schools, the BOM monitor the actual uses of funds budgeted and approved. Nevertheless in about 10% of the schools, BOM does not monitor the actual uses of funds budgeted and approved.

Responses on whether internal reviews of internal controls are conducted periodically. Showed 44.2% of the respondents giving positive response. These results indicate that in majority of the schools, internal reviews of internal controls are conducted periodically. However in some few schools, internal reviews of internal controls are not conducted periodically thus in such schools new technological development of improving internal controls will not be implemented and fraudsters may develop better ways of leakages that cannot be detected.

The respondents were also asked about whether the BOM undertake regular comparison of actual with budgeted expenditure. Majority (44.2%) of the respondents strongly agreed, from the foregoing results, in majority of the national public schools, the BOM regularly undertake regular comparison of actual with budgeted expenditure. However in about 10% of the schools, the BOM do not undertake regular comparison of actual with budgeted expenditure.

The perception on verification all financial approvals and monitoring funds. Many people (47.1%) strongly agreed. The results confirm that in majority of the national public secondary schools, the BOM verify all financial approvals and monitors use of funds. However in some few schools, the BOM does not verify all financial approvals and do not monitor use of funds.

On the view that the frequency and objectivity of internal audits determines level of financial accountability. A High number of the respondents strongly agreed which leads to the conclusion that the regularity and objectivity of internal audits determines level of financial answerability.

V. Conclusion

The results leads to a conclusion that there exists a positive and significant relationship between Monitoring and financial accountability in national public secondary schools in Kenya. This implies that when monitoring improves, financial accountability will improve. Monitoring, may be improved through, frequent internal audit by BOM, objective external audits by school auditors and improved BOM oversight. Financial accountability will improve through, internal audit trail of all revenues and expenditure, verification of actual and budgeted expenditure, finances will be used for the intended purpose and unauthorized expenditure and opportunity and rationalization of fraud will be eliminated.The government should employ a permanent internal auditor in each national public secondary school. Such an auditor should be independent and report directly to the government on monthly basis Monitoring. The BOM should also carry out regular internal audits to monitor use of finances. There should be frequent external audits by county auditors. Such audits should be objective and reflect the true financial status of the school. Auditors should be scrutinized frequently so that those with self-interest to benefit financially from the audit activities are rooted out. The Principal and bursar should be allowed to evaluate the work done by the auditors and post to the central website. This rating will enable the government to identify effective and less effective auditors. It will also ensure that the auditors carry out their duties objectively, accurately and with the due diligence it deserves.

The BOM should take their oversight role seriously. They should frequently visit the schools to monitor implementation of projects and verify budgeted and actual expenditures. BOM should not have vested interest in school finances as this will derail their oversight role.

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