An Analysis of the Causes of Financial Irregularities in State-Owned Institutions in Zambia

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Abstract

The aim of this study was to determine the predictors of the frequency of being cited for financial irregularities. This cross-sectional study employed a self-administered standard structured questionnaire. One hundred and eight respondents comprising directors and deputy directors, heads of accounting, budget and audit units. The findings are that sixty-four (59.3%) of the participants indicated that there institutions were cited frequently for financial irregularities as compared to n = 44 (40.7%) being cited always. There was, however, no statistically significant association between type of institution and the frequency of being cited for financial irregularities (Pearson Chi-Square obs = 0.917; df = 2   and p = 0.632). The Parliamentary Accounts Committee and the Institutional Audit Risk Committees did not perform oversight functions as the composite scores were below the thresholds. The causes of financial irregularities in State Owned Institutions and ministries show two of the predictor variables (a) Audit and Risk Committee and (b) The Parliamentary Accounts Committee have an effect on the institutions being cited for financial irregularities. However, the findings point to the fact that ongoing budget performance monitoring during the fiscal year (of a living and executed budget) in the public sector in these institutions should be done. It is concluded that the findings point to the fact that negative reports by the Auditor General are due to The Parliamentary Accounts Committee and the Board's Audit and Risk Committee inability to undertake oversight functions. The findings may contribute to the further study of causes of financial irregularities in state owned institutions in Zambia and serve as a reference for policy makers and institutional managers in mitigating financial irregularities and reduce the frequency of being cited for financial irregularities.

Keywords: Oversight, Financial Irregularities, State Owned Institutions, Zambia

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Research Background

There is a history to the problem of effecting the outcomes of the Zambian Parliamentary Accounts Committee's oversight functions particularly relating to the budget life year (the year within which the budget is being operationalised. A review of Hansards in Zambia has shown that the functions of the Parliamentary Accounts Committee (PAC) are among many other functions, is to examine the accounts of the previous year showing the appropriation of sums granted by the National Assembly to meet the demands of public expenditure. Parliament has since its inception been concerned with budget approval and post expenditure appraisal only. There is however, lesser attention by Parliament in having oversight on ongoing budget performance monitoring during the fiscal year (of a living and executed budget) in the public sector within the year. As a result, year in and year out, the Office of the Auditor General has lamented the ever present and increasing incidences of misapplication and misappropriation of funds in the Zambian public sector (Republic of Zambia Auditor General's Report, 2017). The difficulty with what has been observed by the Office of the Auditor General rests with failure by oversight bodies like PAC to come up with the framework to mitigate determinants of financial mismanagement. Oversight functions which are vested in the legislature as a fundamental principle of the separation of powers ought to include within the expenditure monitoring mechanism and safeguards. Research on PACs have shown this important part of the oversight expectations gap (Wang, 2005; Salehi and Nanjegowda, 2006) which research by now ought to resolve.

In Zambia, despite officers having been trained in financial management and guidelines, especially budgeting and spending guidelines, there is non-adherence to them (Republic of Zambia Auditor General's Report, 2017, 2017; 2018). The 2008, 2009 and 2010 Audit Reports lined a minimum of seventeen (17) kinds of public finance irregularities. The irregularities, expressed in financial terms, included: Misappropriation of Funds; Unaccounted for Revenue; Delayed Banking; Unaccounted for Funds; Misapplication of Funds; Unretired Imprests; Unvouched Expenditure; Unaccounted for Stores; Irregular Payments; Non-Recovery of earnings Advances and Loans; Failure to follow Tender Procedures; Undelivered Materials; Non-Submission of Expenditure returns; Unauthorized Expenditure. In 2010, these irregularities combined amounted to a complete value of ZMK1.3 Billion. This was regarded as 9.8% of the country's total government income (i.e., revenue

excluding grants and different (non-tax) revenues) in the year. For instance, the 2019 report which is as a result of programmes of test checks, inspections and examination of accounting, stores, projects and other records maintained by the public officers entrusted with handling public resources the summary of audit findings revealed numerous irregularities. The aim of this study was to determine the predictors of the frequency of being cited for financial irregularities.

Research Design and Methods
This publication is a subset from the main mixed methods study that was aimed at developing ideal oversight Parliamentary model in Zambia. This study was limited to directors and deputy directors of finances, budget and audit, heads of an accounting in both public and state owned institutions. In total, there are 25 Ministries and an agglomeration of quasi government institutions (Business Entity/Profit Making Institutions) (n = 23) and Government Agencies (n = 27). Noting that the members of the population in each institution with the set attributes that deal with budget management, expenditure and auditing is ideally 6 (directors and deputy directors of finances, budget and audit, unit heads of an accounting, budget and audit unit) and this is less than the set threshold of ≥ 100, according to Israel (1992) and when it is possible to study an entire population in an institution, there is no need for undertaking random sampling. The probable population of study to be drawn ought to have the following attributes (see Table 1).

Table 1: Profile of Ideal Respondents for the Study

Number of Units	*Decision Making Level*	*Operational level*
	Directors And Deputy Directors Of Finances, Budget And Audit, Unit	Heads of An Accounting, Budget and Audit Unit
Ministries	25 by 3	25 by 3
State Owned Institutions (Business Entity/Profit Making Institutions) and Government Agencies	3 by 50	3 by 50
Total	225	225
Grand total	**450**	

Using Yamane Taro (1967) table, the ideal sample was estimated to be 117 taking the sampling precision of 0.07. In order to draw respondents for the study, the researcher collated the names of all respondents from each intuition to create a sampling frame. The researcher then applied systematic sampling by picking 1 person of every third on the sampling frame. This gave an opportunity to have two respondents in an institution.

The survey questionnaire included specific questions on four predictors which were measured on a five point ordinal scale as follows: 1 for strongly agree, 2 for Disagree, 3 for Somewhat Agree, 4 for Agree and 5 for Strongly Agree. The variables were:
a) Negative reports by the Auditor General are due to Secretary to Treasury oversight functions
b) Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions
c) Negative reports by the Auditor General are due to Cabinet/DC oversight functions
d) Negative reports by the Auditor General are due to PAC oversight functions

One outcome variable was selected in this study was "From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities". The variable was measured on a ratio scale in form of composite scores. The survey was conducted using personal digital assistants (PDAs) over a 4-week period in September 2021 by two trained fieldworkers. All completed questionnaires were downloaded using Census and Survey Processing System software and checked for quality before being processed for analysis. All analyse were conducted using SPSS version 22. Linear regression analysis method was used to conduct regression analysis of questionnaire data. The variable to be explained was "From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities" (Y), and the explanatory variables are:
a) X1: Negative reports by the Auditor General are due to Secretary to Treasury oversight functions
b) X2: Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions
c) X3: Negative reports by the Auditor General are due to Cabinet/DC oversight functions
d) X4: Negative reports by the Auditor General are due to PAC oversight functions

Findings
One hundred and eight respondents who were willing to be part of the study. The response rate was reduced because most of the respondents were uncertain of their jobs as the study was being done during the transition

from the PF led government to the UPND led government and most of the potential respondents were afraid to be part of the study. The study enlisted just over half n = 64 (59.37%) of respondents from quasi government institution as compared to n = 44 (40.7%) from ministries. The gender composition was rather very unequal. Only n = 27 (25%) females accounted for the respondents as compared to n = 81 (75%) males. The response ratio was 3 males to 1 female in ministries as compared to 2 males to 1 female in the State Owned Institutions (see Table 4.1). Within the State Owned Institutions category, n = 45 respondents were drawn from the Profit Making Institutions and n = 19 from Government Agencies (non-business entity/ not-for-profit organization.

There was however, no significant association between gender distribution and type of institution as p was > 0.05 and 0.651 in this case (obs 0.205; df = 1). The respondents were rather youthful as the mean age was 35.5. (± 6.3 SD). The youngest was 28 and the oldest was 56. The respondents had worked in these institutions for an average of 8.49 years (± 2.4 SD). With the minimum being 5 and maximum being 16 years as shown in Table 1 below.

Table 1: Descriptives of Age and Duration of service with the institution

	Mean	Median	Mode	Sd	Min	Max
Age	35.5	35	29	6.3	21	56
Duration of service with the institution	8.49	7	7	2.4	5	16

Noting that this study was premised on the Auditor General's reports citing pubic institutions for various forms of financial irregularities, the researcher opted to first affirm the frequency the institutions were cited for financial irregularities in the previous five years. Table 2 below shows that citing public institutions for financial irregularities was the norm. There were n = 64 (59.3%) instances when respondents indicated that they were cited frequently as compared to n = 44 (40.7%) to be cited always. The proportion citation was 1.4 to 1, for the ministries, 1.25 to 1 for SOI's (Business Entity/Profit Making Institution) and 2.1 to 1 for a Government Agency (non-business entity/ not-for-profit organization).

Table 2: Frequency of being cited for financial irregularities in the last five years by Instiution category

	From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities on a five points scale as		Total
	Frequently cited for irregularities	Always cited for irregularities	
Ministry	26	18	44
SOI's (Business Entity/Profit Making Institution)	25	20	45
Government Agency (non-business entity/ not-for-profit organization)	13	6	19
Total	64	44	108

However, there was no statistically significant association between type of institution and the frequency of being cited (Pearson Chi-Square obs = 0.917; df = 2 and p = 0.632).

Causes of financial irregularities that State Owned Institutions and ministries exhibit

Descriptive analysis of the four predictor variables relating to "Negative reports by Auditor General pointing to financial irregularities" are first presented as shown in Table 3. A five point Likert scale was used as follows: 1 for Strongly Agree, 2 for Disagree, 3 for Somewhat Agree, 4 for Agree and 5 for Strongly Disagree. If Somewhat Agree is taken as the median or neutral responses, the sums of agree and strongly agree are actually more than those of strongly disagree and disagree in all cases (Table 3). From a descriptive point of view, the four predictors suggest to be responsible for financial irregularities in the public sector.

Table 3: Negative reports by Auditor General pointing to financial irregularities

Report by Oversight body	SDA	DA	SWA	A	SA
Negative reports by the Auditor General are due to Secretary to Treasury oversight functions	0	18	63	27	0
Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions	0	12	35	50	11
Negative reports by the Auditor General are due to Cabinet/DC oversight functions	0	10	33	50	15
Negative reports by the Auditor General are due to PAC oversight functions	0	10	25	53	20

Linear logistic analysis was conducted to investigate if negative reports predict the frequency of being cited for financial irregularities. All the independent variables were entered and none was removed as shown in Table 4.

Table 4: Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	a) Negative reports by the Auditor General are due to Secretary to Treasury oversight functions b) Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions c) Negative reports by the Auditor General are due to Cabinet/DC oversight functions d) Negative reports by the Auditor General are due to PAC oversight functions		Enter

a. Dependent Variable: From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities
b. All requested variables entered.

Summary results of the model in Table 5 show that R square measures the linear correlation degree between the whole X and Y, but also measures the correlation degree between the sample data and fitting data, and in multiple linear regression analysis, the adjusted R square could more accurately reflect the correlation goodness of the regression equation. Because the value of the adjusted R square is 0.740, close to 1, it could be considered that the regression equation model established in this study has high correlation goodness. In this case, 74% can be explained, which is very large.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.272[a]	.740	.029	.487

a. Predictors: (Constant), a)Negative reports by the Auditor General are due to Secretary to Treasury oversight functions b) Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions, c) Negative reports by the Auditor General are due to Cabinet/DC oversight functions d) Negative reports by the Auditor General are due to PAC oversight functions
b. Dependent Variable: Rate the frequency of being cited for financial irregularities by the Auditor General's reports in the last five years.

In order to show how well the regression, fit the data, ANOVA was computed and Table 6 below reports how well the regression equation is exacted to fits the data i.e., how it predicts the dependent variable the frequency of being cited for financial irregularities. This table indicates that the regression model does not predict the dependent variable significantly well. How do we know this? We look at the "Regression" row and go to the "Sig." column. Here, p is < 0.05 (0.024). Here p is quoted as 0 .024 which is less than the conventional .05 level used to judge significance. There is therefore sufficient evidence to claim that the predictors have an effect on the frequency of being cited for financial irregularities and this indicates overall, that the regression model is statistically significant to predict the outcome variable (i.e., it is we can say that this is a good fit for the data).

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.93	5	.386	2.63	.024
	Residual	24.14	102	.237		
	Total	26.07	107			

a. Dependent Variable: From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities
b. Predictors: (Constant), a) Negative reports by the Auditor General are due to Secretary to Treasury oversight functions b) Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions, c) Negative reports by the Auditor General are due to Cabinet/DC oversight functions d) Negative reports by the Auditor General are due to PAC oversight functions

According to the regression results of table 6, the total deviation square of variable to be explained, entrepreneurial intention of university students is 26.07. Regression sum of squares and mean square are respectively 1.93 and .386, and the residual sum of squares and mean square are respectively 24.14 and 0.237. The observed value of the F test statistic is 2.63, and the value of the corresponding probability P is approximately 0.024. This table shows that two of the independent variables statistically significantly predict the dependent variable, $F(5, 102 = 2.63, p < .005$ (i.e., the regression model is a good fit of the data). It could be concluded that only two predictor variables (Negative reports by the Auditor General are due to PAC oversight functions and Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight

functions) have an effect on the institutions being cited for financial irregularities as shown in Table 7 below.

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.940	.405		12.19	0.000	4.137	5.744
	Negative reports by the Auditor General are due to PAC oversight functions	.083	.043	.761	1.91	.058*	-.003	.169
	Negative reports by the Auditor General are due to Board's Audit and Risk Committee oversight functions	.684	.038	.832	7.58	.041*	.154	.003
	Negative reports by the Auditor General are due to Cabinet/DC oversight functions	-.045	.039	-.112	-1.15	.251	-.123	.032
	Negative reports by the Auditor General are due to Secretary to Treasury oversight functions	-.035	.023	-.161	-1.54	.125	-.080	.010

a. Dependent Variable: From the Auditor General's reports in the last five years, you can rate the frequency of being cited for financial irregularities

Discussion

When researchers talk about causality they usually have some notion of exogeneity in mind; that relatively independent factors changed and caused endogenous things to happen – in this case the observed 'irregularities' in the Public sector in Zambia by the Auditor General could generally be said to originate from PAC and the internal Audit Risk Committees omissions to perform oversight functions.

The study seems to suggest that the overall budget cycle does not work in a transparent, open and accountable way within the public sector economy. This is because the various functions outside the circle — ongoing expenditure monitoring and evaluation as well as public accounting of ongoing expenditure —do not involve any interaction with PAC and the Audit and Risk Committee. It is here that legislature does not have a key role to play as it has ignored this important role (see Langdon, 1999). From this presentation, it is useful to consider the role of the legislature as well as the Audit and Risk Committee during ex-post and ex-ante phases in the budget process. Given the findings, there is need to alter the current state of affairs through the introduction and addition of what is existing, something new by embracing the functionalist theory of oversight.

The study has established that there are no effective structures in place within PAC or the Audit and risk Committee to ensure ongoing budget performance monitoring.

Research Policy and Practice Implicacations

The researcher proposes that ongoing expenditure oversight mechanisms should embrace parliamentary and the institution's Audit and Risk Committee mechanisms that include proactive actions. There need for changes in relevant legislation in order to allow PAC to also focus on ongoing expenditure. This should be extended to making changes in the existing legal framework in the country especially Acts related to budgeting, public finance management acts, public procurement and the rules of procedure of the parliament. Additional recommendations are addressed toward Boards of State owned Institutions (SOIs) mainly since day to day innovations fall under their scope of responsibility, both the Board and top management ought to be involved in monitoring expenditure. This is crucial in creating supportive environment by ensuring that internal oversight functions are carried out.

This study has some notable limitations. First, the study design does not allow conclusions about the causal relationship between constructs, it does not determine the process of their development and changes over time, nor does it raise the possibility of alternative interpretations of the results. Second, the variables data were collected from the same sources, at the same time, using the same (self-ratings) method. This brings up the issue of common method variance. With this type of research design, the correlation between measures may be attributed to the same-source data rather than a real underlying relationship (Podsakoff and Organ, 1986). In order to address the issue of common method variance, a Harman's single-factor test (Podsakoff, Organ, 1986) ought to have been conducted by performing an exploratory factor analysis on all the variables of the study.

Conclusions

Now and going forward, PAC and the Audit and Risk Committee ought to have redefined roles by getting involved in oversight functions. It is useful to conceptualize the overall budget and expenditure system as a continuing and integrated budget cycle process. In this vein, both PAC and the Audit and Risk Committee ought to play a key role in monitoring on going expenditure. This cross-sectional survey of directors and deputy directors, heads of accounting, budget and audit units has identified predictors of the rate of frequency of a state owned institutions being cited for financial irregularities. Overall, the findings reported here point to the fact that negative reports by the Auditor General are due to PAC and the Board's Audit and Risk Committee inability to undertake oversight functions. The findings of the study may contribute to the further study of causes of financial irregularities in state owned institutions in Zambia and serve as a reference for policy makers and institutional managers in mitigating financial irregularities and reduce the frequency of being cited for financial irregularities.

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Declaration of Competing Interest

The views expressed are not necessarily those of the funder. The author alone is responsible for the content and writing of the paper.

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