EFFECT OF BUDGETING PRACTICES ON THE FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN KENYA

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Abstract

Purpose: The general objective of this study was to establish the impact of budgeting practices on financial performance of insurance companies in Kenya.

Methodology: The study applied descriptive research design. The population of the study comprised the 45 insurance and reinsurers companies that are were registered by the year 2010.The target sample was 50% of the population. A sample size of 50% is adequate for a descriptive study which has a small population. This implied that the sample was 23 insurance companies. Convenient sampling was used to obtain the 23 insurance companies. The study usedsecondary data collected from the Insurance Regulatory Authority, Association of Kenya Insurers and the respective insurance and reinsurers companies. The study used Statistical Package for Social Sciences (SPSS Version 17.0) and Stata version 13 to analyze the panel data. Descriptive statistics such as, mean and frequencies and inferential statistics (regression and correlation analysis) were used to perform data analysis.

Results: The study found out that CAPEX variance and performance (ROI) are negatively and significant related ($r=-0.1611$, $p=0.000$), OPEX variance and performance (ROI) are negatively and significant related ($r=-0.1267$, $p=0.000$), human resource variance and performance (ROI) were negatively and significantly related ($r=-0.1129$, $p=0.000$) while income variance and performance (ROI) were also positively and significantly related ($r=0.2136$, $p=0.000$). From the findings, the study concluded that CAPEX variance has a negative and significant effect on performance (ROI). The study also concluded that OPEX variance has a negative and significant effect on performance (ROI). In addition, the study concluded that human resource variance has a negative and significant effect on performance (ROI) and lastly, the study concluded that income variance has a positive and significant effect on performance (ROI).

Policy recommendation: Study recommended that insurance companies should focus on minimizing the variances. Secondly, the study recommends that insurance firms need to focus on maximizing income variance since it was found to have a positive effect on performance. This would ensure that they derive maximum returns from their operations

Keywords: *Capital expenditure (capex) variance, operating expenditure (opex) variance, Human resource variance, Income variance, financial performance*

1.0 INTRODUCTION

1.1 Background of the Study

A budget is a financial and or quantitative statement prepared and approved prior to a defined period of time for attaining a given organizational objectives (Kariuki, 2010). These goals include control and evaluation, planning, communication, and motivation (lucey, 2010). The Tennessee board of Regents (2006) defines budgeting as the process whereby the plans of an institutions are translated into an itemized, authorized and systematic plan of operation, expressed in dollars for a given period.

Business budgeting is an essential process that allows individuals to meet their business goals. These goals are communication, evaluation, planning, and motivation (Lucey, 2004). (Kariuki, 2010), suggests that budgeting is a process of planning the financial operations of a business. Budgeting as a management tool helps to ensure that there is proper organization of activities within the company (Onduso, 2010)

Insurance companies play a greater role in the country's economy. They create job employment for the citizens thus improving the performance of the economy. The budgeting process in insurance companies incorporates a policy in financial welfare. For instance, it indicates how money is disbursed by the management to the various departments and key places to look on. This helps those who are the managerial position in planning and predicting in order to cut down costs and unnecessary spending and also to increase revenue so that the company may accomplish its corporate vision and mission (Onduso, 2010). The problem facing the insurance industry is the requirement for planning of insurance operations to meet the needs and development of the industry.

1.1.1 Budgeting Practices

A budget is an instrument for facilitating and realizing the objectives of the organization. It provides an appropriate measure for past performance. According to Conrnick*et al,* (1988) empirical research has recorded a wide use of the budgeting system. These studies have greatly presented the important influence, which different elements of organizations in various countries, enrolled on budgeting systems, as key component of management control (Little et al. (2002). Most of the studies has concentrated on budgeting practices in manufacturing firms and banks and overlooked on insurance firms. Therefore this study wished to fill the gap left by the previous studies by investigating the effect of budgeting practices on financial performance of the insurance companies in Kenya.

1.1.2 Financial Performance

This is the measurement of the results or the outcome of the company's performance. These results are indicated in the firm's ROA and ROE. Financial performance is measured by revenues from operations, operating income or cash flow from operations or total unit sales. The analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt (Leah, 2008).

Financial performance of insurance companies can be as a result of financial planning and control and decision making by those who are in managerial position. The performance of the insurance companies will be measured by ROI.

Finance always being disregarded in financial decision making since it involves investment and financing in short-term period. Further, also act as a restrain in financial performance, since it does not contribute to return on equity (Rafuse, 1996). A well designed and

implemented financial management is expected to contribute positively to the creation of a firm's value (Padachi, 2006). Dilemma in financial management is to achieve desired trade-off between liquidity, solvency and profitability (Lazaridis, 2006).The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large. (Naser and Mokhtar, 2004).

1.2 Statement of the Problem

Insurance companies in Kenya have showed poor performance and this may be attached to poor budgeting practices including other factors. The 51 licensed insurance companies compete for a scarce market characterized by inadequate penetration. The uptake of insurance products in Kenya remains low and this reflects the poor attitude of the majority of the individuals towards the insurance cover (Mbogo, 2010). The 51 insurance firms had net profit of Sh7.7 billion, which was far much less as compared to the Sh10.5 billion of Barclays Bank profit after tax posted in the year 2012(Barclays Bank, 2012).The low uptake of insurance cover is due to the fear that the insurance companies do not have a proper mechanisms of budgets and therefore do not respond in a good moment to cover a lose if one suffers a peril. Many people have preferred to keep their wealth in banks in state of insurance companies since banks may have better budgeting practices thus assuring their clients for the recovery of money when needed. Examples of collapsed insurance firms include United Insurance, Invesco Insurance, and BlueShield Insurance. This has brought in the debate on need for effective budgeting practices in insurance firms.

The Kenyan insurance industry has experienced regulatory setback in the recent past. Over the past few years, the industry experienced rampant cases of unethical competition, low market capitalization, a drop in the level of professionalism and the winding up of insurance companies as result of mismanagement. Both problems within the office of commissioner of insurance and other constraints and challenges concerning the industry in general have constrained the regulation of the insurance industry (Koima, 2003). In the office of commissioner of insurance constraints identified are: Inadequate analysis and slow response to remedy financially weak insurers, Lack of autonomy of action and freedom from interference by political and other groupings and Inability to have a dynamic influence in the evolution of the insurance industry (Koima, 2003).

Locally, studies that have been conducted include: Koima (2003) who conducted a study on the challenges in the regulation of the insurance industry in Kenya, Kamanda, (2006) also conducted a study on Insurance companies with the objective of determining the factors that affect its regional growth strategy, Ouma (2007) conducted a study on the relationship between competitive advantage and value chain in the insurance industry in Kenya; Kitua (2009) investigated on the internet as a source of competitive advantage for insurance firms in Kenya. Few of the reviewed studies concentrated on budgeting practices and their effect on financial performance of insurance firms in Kenya. Therefore, this study sought to fill the research gap by investigating on the effects of budgeting practices on financial performance of insurance firms in Kenya.

1.3 Research Objectives.

1. To investigate the effect of Capital expenditure (capex) variance on financial performance of insurance companies in Kenya
2. To establish the effect of operating expenditure (opex) variance on financial performance of insurance companies in Kenya.
3. To investigate the effect of Human resource variance on financial performance of insurance companies in Kenya
4. To establish the effect of Income variance on financial performance of insurance companies in Kenya

2.0 LITERATURE REVIEW

2.1.1 Goal Setting Theory

Goal setting theory (Locke and Latham, 2002) was formulated within industrial organization psychology over 25 years period. A budget refers to the formulation of organizational plans over a given period of time.When an organization has a set goals/ objectives, it will motivate it to work and remain focused to those goals. Thus, the goals will lead to an improvement of the financial performance. Goals challenge the employees and thus making them to remain focus this the accomplishment of the set goals. (Locke and Latham, 2002).

This theory is relevant to this study topic since it informs the independent variables. Budgets should be set in a way that it looks challenging to the employees. Simple budgets are boredom to employees. But also budgets which are unrealistic demotivate the employees.

2.2.2 Institutional Perspective Theory on Budgets

According to this theory, budgets came as result of competition pressures. An organization looks on the performance of a competing firm which is doing well financial and tries to imitate on how they do their work. In the process they develop a budget which they use as a bench mark. Stockholders require that the firm should have a set budget which they will use to compare their actual performance at the year ends. Charitable organizations also demand a budget so that they can use to track on how money was spent. In addition, employees require a budget so that they can be assured of their salaries. Finally, accountants also are required to develop budget so as to monitor the follow of funds. (Rowan, 1977).

2.2.3 Factors affecting financial performance

The main goal of a firm is to maximize the wealth of the stockholders' and firm performance is one of the essential factors which assist to maximize the shareholder wealth (Demirhan, & Anwar, 2014). Firm performance is among the most essential research considerations of financial management. Factors that influence firm performance can be divided into micro and macro factors. Micro factors are those factors which influence the performance of the company internally whereas macro factors are those factors which are beyond the control of the firm (Demirhan, & Anwar, 2014).

2.2.4 Budgeting and financial performance

For effective decision making, budgeting system should be highly involved so as to provide accurate and comprehensive information. To be effective, performance measurement must be integrated into a company's budgetary process. Performance budgeting need to be linked with the flexibility of the managers so as to enhance the accountability of the results. The initiatives of Performance budgeting tend to go together with performance management.

2.2.5 Measures of financial performance

This is the measurement of the results or the outcome of the company's performance. These results are indicated in the firm's ROA and ROE. Financial performance is measured by revenues from operations, operating income or cash flow from operations or total unit sales. The analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt (Leah, 2008).

2.4 Conceptual Framework

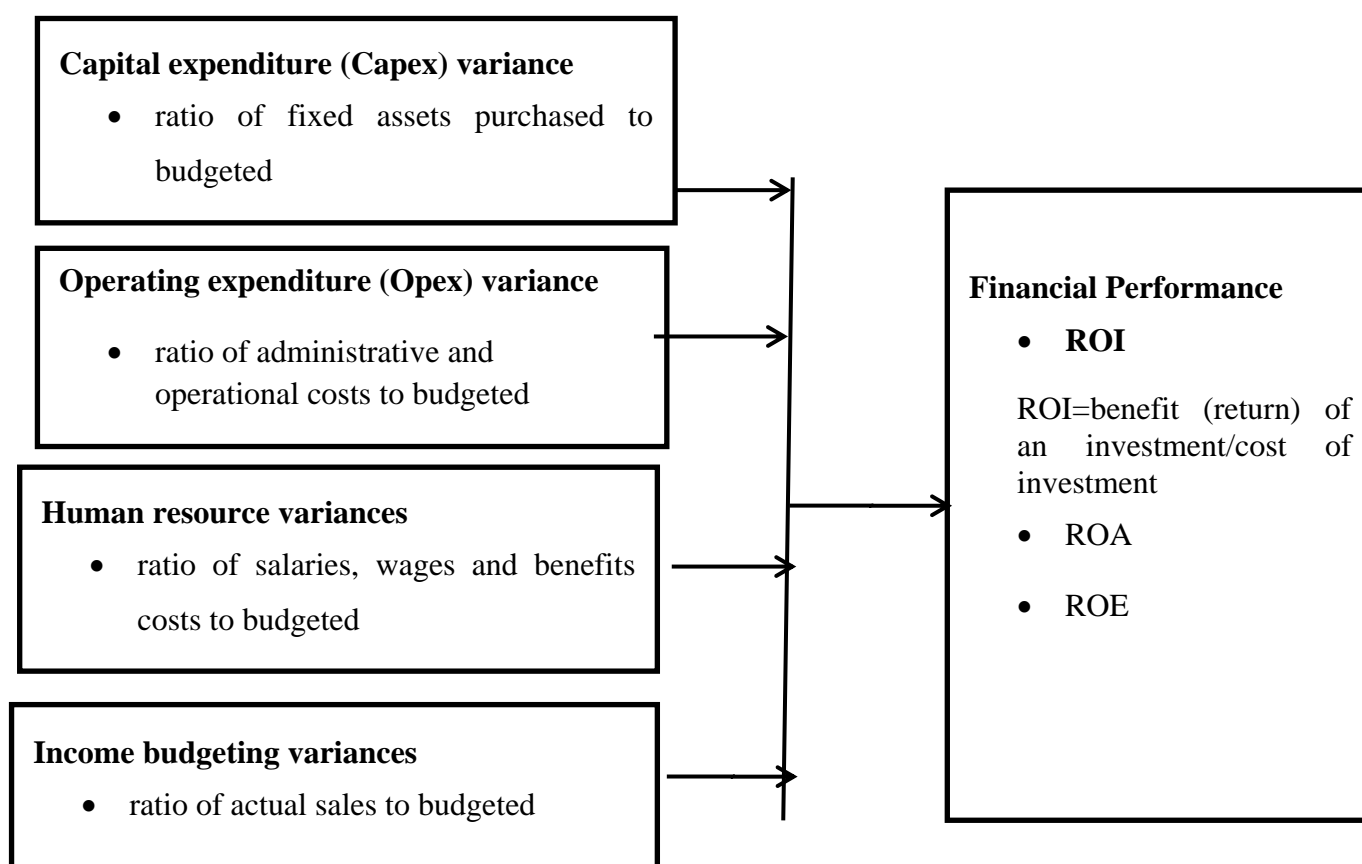Independent Variables   Dependent Variable

Capital expenditure (Capex) variance
- ratio of fixed assets purchased to budgeted

Operating expenditure (Opex) variance
- ratio of administrative and operational costs to budgeted

Human resource variances
- ratio of salaries, wages and benefits costs to budgeted

Income budgeting variances
- ratio of actual sales to budgeted

Financial Performance
- **ROI**

ROI=benefit (return) of an investment/cost of investment
- ROA
- ROE

Figure .1 Conceptual Framework

3.0 METHODOLOGY

The study applied descriptive research design. The population of the study comprised the 45 insurance and reinsurers companies that are were registered by the year 2010.The target sample was 50% of the population. A sample size of 50% is adequate for a descriptive study which has a small population. This implied that the sample was 23 insurance companies. Convenient sampling was used to obtain the 23 insurance companies. The study usedsecondary data collected from the Insurance Regulatory Authority, Association of Kenya Insurers and the respective insurance and reinsurers companies. The study used Statistical

Package for Social Sciences (SPSS Version 17.0) and Stata version 13 to analyze the panel data. Descriptive statistics such as, mean and frequencies and inferential statistics (regression and correlation analysis) were used to perform data analysis.

4.0 RESULTS FINDINGS

4.1 Descriptive Results

Results in table 1 below indicate the summary descriptive statistics of CAPEX variance, OPEX variance, human resource variance, income variance and ROI. As indicated in the table 4.1 below the Mean ratio of CAPEX variance for the period 2005 to 2014 was 1.138 with a standard deviation of 11.303 indicating wide variability in the CAPEX ratio over time. The Minimum and Maximum values of CAPEX over the same period of time were -29.7 and 37.3 respectively. The Mean ratio of OPEX considered was 0.717 with a standard deviation of 13.292 and this indicates high variations in OPEX. The results also indicate that the Minimum OPEX recorded being -28.7 and the Maximum OPEX ratio being 40.4. The Mean human resource variance over the period 2005 to 2014 was 0.947 and had a standard deviation of 12.318 and its minimum and maximum values were -27.5 and 40.0 respectively. The results further indicate that the minimum income variance ratio recorded was -9.9 and the Maximum being 10.9. The Mean of income variance over the period 2005 to 2014 was 0586 and had a standard deviation of 6.094. Further, the results indicated that the mean ratio of ROI for the year 2005-2014 was 0.39 while its standard deviation was 5.9042. Its minimum and maximum values were -10.0 and 10.9 respectively.

Table 1: Descriptive Statistics

Variable	Observation	Mean	Std. Dev	Minimum	Maximum
	Overall	1.138	11.303	-29.7	37.3
	Between		9.303	-24.2	36.3
CAPEX	within		3.323	-0.2	35.0
	Overall	0.717	13.2921	-28.7	40.4
	Between		12.333	-21.0	38.4
OPEX	within		8.993	-1.3	36.1
	Overall	0.947	12.3184	-27.5	40
	Between		10.254	-24.1	39
Human Resource variance	within		2.558	-1.65	37
	Overall	0.586	6.0936	-9.9	10.9
	Between		5.2355	-8.3	9.1
Income variance	within		1.345	-1.2	8.5
	Overall	0.39	5.9042	-10	10.9
	Between		3.854	-7	9.3
ROI	within		2.001	-8	8.4

4.2   Exploratory Data analysis

Data analysis began with the exploration of the study data. Exploration study analysis examined heterogeneity across the firms and over time. Exploratory data analysis was done using graphs to examine the trend of ROI within and across the firms. Figure 4.1 shows the empirical growth of ROI over the 10 years. The empirical growth plot reveal that for most firms ROI trend has been on the fluctuating over time this could be attributed to environmental factors and the changing regulatory environment over this period. The

formation of the Insurance Regulatory Authority and introduction of prudential guidelines in the year 2006 with the amendment of the insurance (Amendment), 2006 act.
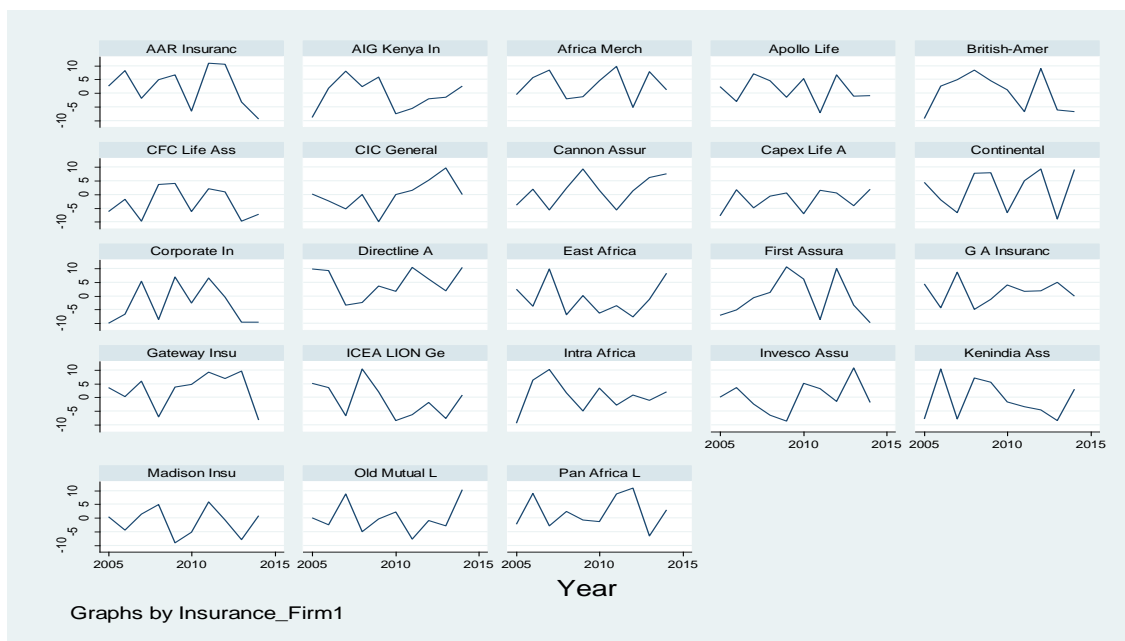

Figure 2: Growth plots for ROI

4.3 Pre-Estimation Tests

Before modeling the regression, multicollinearity test was first performed. This is usually done so as to avoid spurious regression results.

4.3.1 Multicollinearity test

Correlation matrix was used to test for multicollinearity. Preliminary results indicate that there was no multicolllinearity between the independent variables since all the values were less than 0.8

Table 1: Correlation Matrix

		ROI	CAPEX	OPEX	Human Resource Variance	Income variance
ROI	Pearson Correlation	1.000				
	Sig. (2-tailed)					
CAPEX	Pearson Correlation	-.344**	1.000			
	Sig. (2-tailed)	0.000				
OPEX	Pearson Correlation	-.367**	0.027	1.000		
	Sig. (2-tailed)	0.000	0.684			
Human	Pearson	-.308**	0.022	.204**	1.000	

Resource variance	Correlation					
	Sig. (2-tailed)	0.000	0.745	0.002		
Income variance (L/M)	Pearson Correlation	.311**	-0.120	-0.126	-0.059	1.000
	Sig. (2-tailed)	0.000	0.070	0.057	0.370	

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

4.4 Post-Estimation Tests

Test for normality, Heteroskedasticity and autocorrelation were conducted so as to ensure all the OLS assumptions are not violated.

4.4.1 Test for Normality

The test for normality was first investigated using the graphical method as indicated in figure

3. The results in the figure indicate that the residuals are not normally distributed.

```
. predict r
(option xb assumed; fitted values)

. quietly xtreg ROI CAPEX OPEX Human_Resource_variance Income_variance

. hist r,norm
(bin=15, start=-8.7119112, width=1.1761922)
```
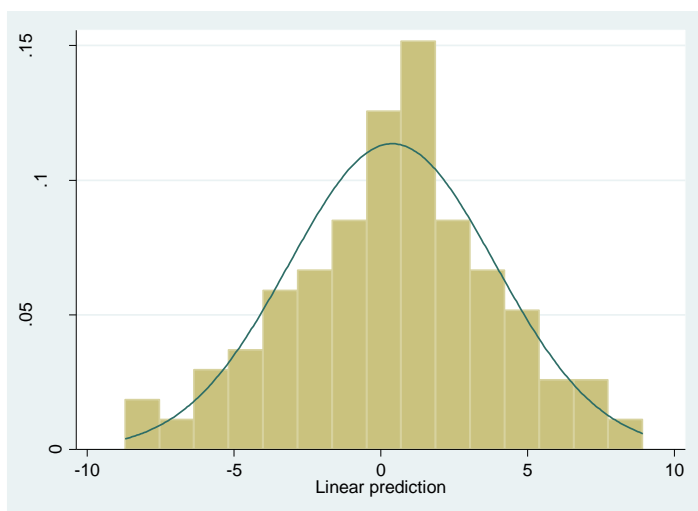

Figure 3: Normality of residuals

The table 4.3 below indicates the S-K test. The H0 under this test is that the residuals are not significantly different from a normal distribution. Given that the p-values are less than 5% for

the residual, the null hypothesis is rejected and thus the conclusion that the residuals are not normally distributed and thus the violation of the OLS assumption of normality of the residuals.

Table 2: Skewness/Kurtosis Test for Normality

```
. sktest ROI CAPEX OPEX Human_Resource_variance Income_variance
```

```
                    Skewness/Kurtosis tests for Normality
                                                     ——— joint ———
      Variable  |  Obs   Pr(Skewness)  Pr(Kurtosis)   adj chi2(2)   Prob>chi2
    _____|_____
           ROI  |  230     0.9092        0.0000         39.57         0.0000
         CAPEX  |  230     0.1203        0.0015         10.99         0.0041
          OPEX  |  230     0.0002        0.0019         19.15         0.0001
    Human_Reso~e|  230     0.0000        0.0004         28.57         0.0000
    Income_var~e|  230     0.9021        0.0000         72.09         0.0000
```

4.5.2 Test for Heteroskedasticity

OLS assumption states that the residuals should be Homoskedastic. The Modified Wald test was used in the study where the null hypothesis of the test is error terms have a constant variance (i.e. should be Homoskedastic). The results in the table 4.4 indicate that the error terms are heteroskedastic, given that the p-value is less than the 5% and this also indicates a violation of the OLS assumption of constant variance of residuals.

Table 3: Modified Wald Test for Heteroskedasticity

```
. quietly xtreg ROI CAPEX OPEX Human_Resource_variance Income_variance,fe

. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (23)  =     151.23
Prob>chi2 =      0.0000
```

4.5.2 Test for Autocorrelation

The test for autocorrelation was performed to establish whether residuals are correlated across time. The results of table 4.5 indicated that the H0 of no autocorrelation is not rejected and that residuals are not auto correlated (p-value=0.9606).

Table 4: Wooldridge test for Autocorrelation

```
. xtserial ROI CAPEX OPEX Human_Resource_variance Income_variance


Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
    F(  1,     22) =      0.003
           Prob > F =      0.9606
```

Given that the normality and Homoskedastic variance on which the OLS regression lean upon are violated the study adopted a panel regression in order to establish the effect of capex variance, opex variance, human resource variance and income variance on financial performance.

4.6 Panel Data Regressions

Given that the normality and Homoskedastic variance on which the OLS regression lean upon are violated the study adopted a panel regression in order to establish the effect of capex variance, opex variance, human resource variance and income variance on financial performance. This therefore led to the treatment of the data as a panel. Panel data techniques are employed to capture time series dimension and/or 'smooth out' year-on-year variability in the data and thus fixed effects and random effects models are examined.

Panel data Models are described by the model;

$y_{it} = x_{it}' \beta + \alpha_i + v_{it}$, $i = 1,..., N$(individuals) $t = 1,...,T$ (time)……………………..(xii)

Where;
$x_{it}$is the it-th observation on k explanatory variables, β is the parameter vector, α_i denotes the unobserved individual-specific time-invariant effects, and the residual disturbance term v_{it}has zero mean, constant variance, and is uncorrelated across time and individuals

Depending on the nature of α_i, two models can be distinguished, first is the Random Effect Model which assumes that α_i are random variables uncorrelated with v_{it}. The second model is the Fixed Effects Model which assumes that the α_i are individual fixed parameters. The results of both the random and fixed effects model are presented in the table 4.6 and table 4.7 respectively.

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Table 5 Random effect Model

```
. xtreg ROI CAPEX OPEX Human_Resource_variance Income_variance,re

Random-effects GLS regression          Number of obs     =      230
Group variable: Insurance_~1           Number of groups  =       23

R-sq:  within  = 0.3680                Obs per group: min =       10
       between = 0.2174                               avg =     10.0
       overall = 0.3496                               max =       10

                                       Wald chi2(4)      =   122.69
corr(u_i, X)   = 0 (assumed)           Prob > chi2       =   0.0000
```

ROI	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
CAPEX	-.1611817	.0283306	-5.69	0.000	-.2167086	-.1056548
OPEX	-.1266567	.0245556	-5.16	0.000	-.1747848	-.0785286
Human_Resource_variance	-.1128945	.0262109	-4.31	0.000	-.164267	-.0615221
Income_variance	.2135973	.0526483	4.06	0.000	.1104085	.3167861
_cons	.6456578	.353778	1.83	0.068	-.0477342	1.33905
sigma_u	.74302826					
sigma_e	4.7268603					
rho	.02411373	(fraction of variance due to u_i)				

```
. estimates store random

.
```

Table 6 Fixed effect model

```
. xtreg ROI CAPEX OPEX Human_Resource_variance Income_variance,fe

Fixed-effects (within) regression      Number of obs     =      230
Group variable: Insurance_~1           Number of groups  =       23

R-sq:  within  = 0.3690                Obs per group: min =       10
       between = 0.2017                               avg =     10.0
       overall = 0.3482                               max =       10

                                       F(4,203)          =    29.68
corr(u_i, Xb)  = -0.0812               Prob > F          =   0.0000
```

ROI	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
CAPEX	-.169726	.0300014	-5.66	0.000	-.2288803	-.1105716
OPEX	-.1301221	.0257924	-5.04	0.000	-.1809774	-.0792668
Human_Resource_variance	-.1252039	.0269561	-4.64	0.000	-.1783538	-.0720541
Income_variance	.1944912	.0541911	3.59	0.000	.0876417	.3013407
_cons	.6807102	.3170834	2.15	0.033	.0555109	1.305909
sigma_u	1.7474581					
sigma_e	4.7268603					
rho	.12023592	(fraction of variance due to u_i)				

```
F test that all u_i=0:    F(22, 203) =    1.33         Prob > F = 0.1521

. estimates store fixed
```

4.7 Hausman Test

In order to determine whether the fixed or random effects model is appropriate Hausman test was used. The Hausman test fundamentally tested whether the unique errors (ui) are correlated with the regressors.

The results in table below illustrate the results of the Hausman test. A resultant p value of 0.1815 was larger than the conventional p value of 0.05 leading to the acceptance of the null hypothesis that the unique errors (ui) are not correlated with the regressors and thus the random effects model is more appropriate.

Table 7: Hausman results

```
. hausman fixed random

                 ──── Coefficients ────
                  (b)          (B)          (b-B)      sqrt(diag(V_b-V_B))
                 fixed        random       Difference          S.E.

    CAPEX       -.169726    -.1611817     -.0085443         .0098723
     OPEX      -.1301221    -.1266567     -.0034654         .0078911
Human_Reso~e   -.1252039    -.1128945     -.0123094         .0062944
Income_var~e    .1944912     .2135973     -.0191061         .0128385
```

```
                    b = consistent under Ho and Ha; obtained from xtreg
         B = inconsistent under Ha, efficient under Ho; obtained from xtreg

   Test:  Ho:  difference in coefficients not systematic

              chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                      =         6.25
              Prob>chi2 =     0.1815
```

4.8 Discussion of Panel Regression Results

In order to establish the effect of CAPEX variance, OPEX variance, human resource variance and income variance on financial performance (ROI), a random effects regression model was run and the results are as presented in the table 8 below.

The results presented in table 8present the fitness of model used of the regression model in explaining the study phenomena. CAPEX variance, OPEX variance, human resource variance and income variance were found to be satisfactory variables in explaining performance (ROI). This is supported by coefficient of determination also known as the R square of 34.96%. This means that CAPEX variance, OPEX variance, human resource variance and income variance explain 34.96% of the variations in the dependent variable which is performance. This results further means that the model applied to link the relationship of the variables was satisfactory.

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

Table 8 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance. This was supported by a Wald chi2 of 122.22 and a p value (0.000) which was less than the conventional probability of 0.05significance level.

Regression of coefficients results in table 8shows that CAPEX variance and performance (ROI) are negatively and significant related (r=-0.1611, p=0.000). The table further indicates that OPEX variance and performance (ROI) are negatively and significant related (r=-0.1267, p=0.000). It was further established that human resource variance and performance (ROI) were negatively and significantly related (r=-0.1129, p=0.000) while income variance and performance (ROI) were also positively and significantly related (r=0.2136, p=0.000)

Table 8 : Random Panel Regression Results

```
. xtreg ROI CAPEX OPEX Human_Resource_variance Income_variance,re

Random-effects GLS regression          Number of obs    =      230
Group variable: Insurance_~1           Number of groups =       23

R-sq:  within  = 0.3680                Obs per group: min =      10
       between = 0.2174                               avg =     10.0
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                                       Wald chi2(4)     =   122.69
corr(u_i, X)   = 0 (assumed)           Prob > chi2      =   0.0000
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_cons	.6456578	.353778	1.83	0.068	-.0477342	1.33905
sigma_u	.74302826					
sigma_e	4.7268603					
rho	.02411373	(fraction of variance due to u_i)				

Therefore the optimal model was**;**

ROI= 0.6457-0.1611 CAPEX variance -0.1267 Opex variance- 0.1129 Human resource variance + 0.2136 Income variance

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

5.1.1 CAPEX variance

The first objective of the study was to investigate the effect of Capital expenditure (capex) variance on financial performance of insurance companies in Kenya. The study found that the CAPEX variance and ROI are negative (r= -0.1611) and significantly (p-value<0.000) correlated and thus a unit increase in CAPEX variance would lead to a decrease in ROI by 0.1611 units.

This finding is consistent with that of Ambetsa, (2004) who conducted a study on the budgeting control practices by commercial airlines. The study found out that the challenges faced were budget evaluation deficiencies, lack of full participation of all individuals in the preparation of the budget and lack of top management support. The study concluded that airlines operate and use budgets to plan implement and evaluate their business performance.

5.1.2 OPEX variance

The second objective of the study was to establish the effect of operating expenditure (opex) variance on financial performance of insurance companies in Kenya. The finding indicated that OPEX variance and performance (ROI) are negatively and significant related (r=-0.1267, p=0.000) and thus a unit increase in OPEX variance leads to a decrease in ROI by 0.1267 units.

This finding is consistent with that of Tsui, (2001) who conducted a study based on China and Caucasian cultures. The study points that the interaction effect of budget participation and management accounting system on management performance were slightly different. This was because of the cultural background of managers. There exists a geographical/contextual gap in the study since it focused on China economies.

5.1.3 Human resource variance

The third objective of the study was to investigate the effect of Human resource variance on financial performance of insurance companies in Kenya. The study established that human resource variance and performance (ROI) were negatively and significantly related (r=-0.1129, p=0.000) and therefore, one unit increase in human resource variance leads a decrease in ROI by 0.1129 units.

This finding agrees with that of Gacheru (2012) who conducted a study on the impact of budgetary process on budget variances in NGOs in Kenya. The study used a descriptive data analysis and concluded that budget preparation, control and implementation significantly influence budget variance.

5.1.4 Income Variance

The forth objective was to establish the effect of Income variance on financial performance of insurance companies in Kenya. The study found out that income variance and performance (ROI) were also positively and significantly related (r=0.2136, p=0.000) and thus a unit increase in income variance leads to an increase in ROI by 0.2136 units.

This finding agrees with that of Carolyn, et al. (2007) who conducted a study to establish the effects of budgetary control on performance in U.S. The study investigated if the tightness of budgetary controls or effective level of budgetary control as measured by budget variance contributes to performance. The study found that effective level of budgetary control is positively and significantly related to bond rating. The study presents both conceptual and contextual gap since it focused on effects of budgetary control on performance, using a sample of large U.S. cities.

5.2 Conclusions

From the findings above, the study concluded that CAPEX variance has a negative and significant effect on performance (ROI). The study also concluded that OPEX variance has a negative and significant effect on performance (ROI). In addition, the study concluded that human resource variance has a negative and significant effect on performance (ROI) and lastly, the study concluded that income variance has a positive and significant effect on performance (ROI).

5.3 Recommendations

Given that there exists a negative and significant relationship between CAPEX, OPEX and human resource variances it is recommended that if insurance firms wish to improve on performance, they should concentrate on minimizing the adverse variances. Indeed, there is a need for the regulator to come up with sufficient prudential tools to enable the minimizing of budgetary variances the Secondly, the study recommends that insurance firms need to focus on maximizing income variance and minimizing the since it was found to have a positive effect on performance. This would ensure that they derive maximum returns from their operations.

5.4 Suggested Areas of Further Study

The study recommends that further studies on influence of budgeting practices to be carried out in other financial institutions like banks since this study concentrated on only insurance firms. The findings will be used for comparison purposes. Further, the study recommends the same be carried out in the public sector and other non for profit organization

REFERENCES

Adongo, K.O. (2012).The Relationship between Budgetary Controls and Financial Performance of State cooperation in Kenya.*Unpublished MBA Project*: Kenyatta University.

Ambetsa, W.O.A. (2004). Survey of Budgeting Practices by Commercial Airlines operating at Wilson Airport.*Unpublished MBA Project*.University of Nairobi.

Carolyne, M., Callahan, Waymire&Renea, T. (2007, November 2).An Examination of the Effects of Budgetary Control on Performance: Evidence from the cities.*AAA 2008 MAS Meeting Paper*.http://ssrn.com/abstract=1003930.

Cooper, D. R. & Schindler, P. S. (2003). *Business Research Methods*.11ᵗʰ Ed. New Delhi, India: McGraw-Hill Publishing, Co. Ltd

DiMaggio, P. J., & Powell, W. W. (1983) Collective rationality in organizational fields.*American Sociological Review*, *48*(2), 147-160.

Egan,(1997). *Industrial Organization: Theory and Practice.* London: Oxford University Press

Gachithi, E. (2010).The Challenges of budget implementation in Public Institutions: A case study of University of Nairobi. *Unpublished MBA Project.*University of Nairobi.

Gachithi, E. W. (2010). *The challenges of budget implementation in public institutions: A case study of University of Nairobi* (Doctoral dissertation).

Horngren C. T. (2000). *Cost Accounting, A Managerial Emphasis*. 4th edition, Prentice Hall India, NewDelhi.

Kothari, C. (2004). *Research Methodology: Methods & Techniques*. 2ⁿᵈ Ed. New Delhi, India: New age International Publishers

Larson, R. W., Richards, M. H., Sims, B., &Dworkin, J. (1999). How urban African American young adolescents spend their time: Time budgets for locations, activities, and companionship. *American Journal of Community Psychology*, *29*(4), 565-597.

Leah, M. (2008). Interest Rate Forecasts, Financial Markets Group, *London School of Economics and Political Science,* 42(3), 201-231.

Little, H.T., Magner, N.R., & Welker, R.B. (2002). "The Fairness of Formal Budgetary Procedures and Their Enactment", In: *Group & OrganizationManagement*, Vol.27 (2), pp. 209-225

Mugenda, O. M. &Mugenda, A. G. (2003).*Research Methods: Quantitative and Qualitative Approaches*. Nairobi, KE: Acts Press

Otley, D.T (1976). *Budgetary control and managerial performance*.Unpublished PHD Dissertation university of Manchester.

Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Harvard Business Press.

Tsui, J. S. (2001). The impact of culture on the relationship between budgetary participation, management accounting systems, and managerial performance: an analysis of Chinese and Western managers. *The international journal of accounting*, *36*(2), 125-146.

Demirhan, H. G., &Anwar (2014) ,factors affecting the financial performance of the firms during the financial crisis: evidence from Turkey.

Otley, D.T. (2003). "Management control and performance management: whence and whither?" in: *British Accounting Review*, Vol. 35(4)