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A Panel Analysis Of Capital Structure And Financial Performance Of Insurance Companies Listed In Nairobi Security Exchange, Kenya

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Abstract: ***The objective of the study was to analyze the effect of capital structure on financial performance of the insurance companies listed in Nairobi Security Exchange. In order to arrive at the results of the objectives, we hypothesized that there is no decisive role of the capital structure strategy adopted in the financial performance in insurance companies listed in Nairobi Securities Exchange. The study adopted casual research design taking panel data spanning ten years were used for the analysis in the current study a time series data were collected. This study consisted of 6 insurance companies listed on the Nairobi Securities Exchange (NSE). The data of the insurance companies were collected from annual reports, in which the individual was the company and the period was annual data, and our study was balanced as all the entities were observed for an equal period from 2011 to 2020 and all the firms remained listed throughout the period 2011–2021.***

The results from the panel data revealed that there was significant positive relationship between growth opportunity, Total Debt to Total Asset Ratio and differed Income Tax payable and financial performance in insurance companies listed in Nairobi Securities Exchange. On the other hand the study established significant negative relationship between debt to equity ratio and financial performance in insurance companies listed in Nairobi Securities Exchange. Lastly, the study established that although bivariate regression results on the relationship between each of the capital structure and financial performance of the insurance companies listed in Nairobi Security Exchange was significant, when the 4 capital structure strategies were combined in multivariate regression, leveraging of debts and assets did not have effect significant effect on financial performance of the insurance companies listed in Nairobi Security Exchange measured in terms of ROA.

Keywords: Capital Structure, Financial Performance, Equity Financing, Debt Financing, Differed Taxation, Financial Leverage and Insurance Investment.

I. INTRODUCTION

The capital structure of a firm represents an amalgam of the sources through which it is financed which according to Damodaran (2001) and Pais (2017), it is a combination of the equity and debt capital that a firm uses for its financing. The concept of capital structure can be defined as a proportional composition or combination of debt capital and equity capital. Scholars around the world have conceptualized the structure of capital in different contexts and different ways. Van Horne and Wachowicz (2008) stated that capital structure as a long-term financing method is a combination of the firm's preferred share capital, equity capital, and debt capital. Besley and Brigham (2008), on the contrary, conceptualized capital structure as a combination of long-term debt capital, preferred share capital, and net worth, which is used as a method of

permanent financing by companies. Therefore, it can be argued that the capital structure has been traditionally conceptualized as a combination of long-term debt capital and equity capital, and thus neglects short-term debt capital. The capital structure is usually used to fund the development of a firm's business, with its use considered a crucial decision to make because of its direct influence on the risk and return of the firm. The extent to which the insurance companies listed in Nairobi Security Exchange have used capital structure to achieve their desired profitability goal was our concern in writing this paper.

Company performance is a key issue for investors, shareholders, and the economy in general. According to Iswatia and Anshoria (2007), a company's performance is a function of the organisation's ability to obtain and manage its resources in order to develop a competitive advantage (Omondi & Muturi, 2013). Previous studies have used return on assets (ROA), return on equity (ROE), and Tobin's Q as measures of competitive advantage (Liargovas & Skandalis, 2008), whereas the current study assessed the achievement of ROA through the set capital structure of the insurance companies listed in Nairobi Securities Exchange. Financial performance on the other hand is a particular measure of how effectively a firm uses its resources and assets to maximize its profitability which according to Erasmus (2008) liquidity, and profitability are essential tools for stakeholders and firms' current position and stated that financial performance depends on many factors, including, among many other variables, the structure of capital and macroeconomic factors. Moreover, the ROA and NIM are also options to measure financial performance. The ROA measures the comprehensive ability to utilize assets, and Tobin's Q measures the market value. The studies by Ahmed and Siddiqui (2019) and Memon et al. (2012) on the textile sector of Pakistan were based on the ROA (financial performance proxy) and the debt to total assets ratio (capital structure proxy). However, this study was limited to the return on equity (ROE) as a measure of overall profitability and the capital structure in the view of debt and shareholders' equity is a better measure of textile sector firms listed on the Pakistan Stock Exchange. These variables are the most appropriate for testing the hypotheses, questioning, and analyzing the Pakistani textile sector's financial performance. Moreover, the study was limited to the textile sector firms listed on the Pakistan Stock Exchange. In the textile sector of Pakistan, the selected variables in the current study are more rational and appropriate compared to the current study which was based on service industry.

According to Ullah, Pinglu, Ullah, Zaman and Hasimi (2020), developing countries have a long history of providing incentives to reduce the overall tax burden on export incomes. Most developing countries provide incentives by enabling exporters to lower their prices without reducing their net profits as well as offering tax exemptions, export finance schemes, and other measures to facilitate exports. In recent years, to promote export growth, export promotion has been the hallmark of most South Asian economies' trade policies. In competition with other countries in the same market, export incentives have become more complicated and countries aim to offer a wider range of export incentives than their rivals. However, this exerts a positive impact on exports while simultaneously causing the government to lose revenue by increasing the incentives to promote and compete. Kenya being a developing country, to the contrary, Kenyan taxation system is discriminatorily, making it hard for business environment including the insurance companies, which over time have gone under.

Choosing between internal or external financing presents a serious problem in companies. Capital structure and its impact on firm value and performance remain a puzzle in corporate finance theory and financial literature. Capital structure theory based heavily on large firms fails to explain the optimal debt-to-equity mix. Therefore, the choice of capital structure is an important issue for large and small companies. There are many theories that explain how investors can build the best "capital structure", which improves the firm's market value by selecting the best mixture of equity financing and debt financing (Brigham and Gapenski, 1996), and theories on capital structure.

II. THEORETICAL AND EMPIRICAL REVIEW

A. THEORETICAL REVIEW

Three theories are related to the choice of capital structure in companies, namely Modigliani and Miller (MM) theory, trade-off theory, and Pecking order theory. MM theory is the most fundamental theory for capital structure. Assuming that there is no income rate, then the capital structure is irrelevant to the value of the company or the company has no way of increasing its value by changing the capital structure. Furthermore, by including corporate income tax, the value of companies that have more debt in their capital structure is the same as the market value of companies that have no debt. In short, this theory shows that the capital structure affects the market value of the firm. This trade-off theory concludes that the market value of a company with debt is equal to the value of the company without debt plus the value of the tax shield minus the present value of bankruptcy costs. This theory suggests that there is an optimal capital structure, in which the tax shield benefits the most to compensate for losses from debt due to financial difficulties and agency costs. Next is the pecking order theory that explains business managers' funding decisions. In meeting their capital requirements, businesses place an order of priority for their funds: first using internal sources, followed by loans, then equity. In short, the pecking order theory states that internal capital will always take precedence over loans and the use of internal funds will reduce the company's dependence on external parties, increase financial autonomy and reduce internal information leakage. The extent to which the insurance companies listed in Nairobi Securities Exchange have applied Modigliani and Miller (MM) theory, trade-off theory, and Pecking order theory in the choice of their capital structure was a main concern of the current investigation.

An optimal capital structure should be used according to financial theory and literature; however, there is no consensus on how to achieve an optimal debt-to-equity ratio. Finance theory is further unsupported in understanding the impact of the chosen capital structure on firm value. An optimal capital

structure minimizes the cost of capital and ensures that firm profitability is maximized. Proper management of the capital structure is crucial at it affects the profitability and the value of the firm in the long run; inefficient management will cause financial difficulties that will ultimately lead to bankruptcy. Gill et al. (2011) emphasized that although numerous theoriesattempted to explain the optimal capital structure, there is still no appropriate model to determine the optimal capital structure.

B. EMPIRICAL REVIEW

Various studies have been conducted on the capital structure in developed countries and a few have been performed in developing countries. Logically, most of the authors have found a positive relationship while others have found a negative association between capital structure and firm performance. In developed countries, Hadlock and James (2002) studied 48 US firms from 1981 to 1990 and found a positive relationship between capital structure and profitability. Margaritis and Psillaki (2010) found a significant progressive relationship between debt and the performance of the organization. They used data from French organizations from 2003 to 2005 as a sample. This study was carried out in developed economy and carried out over 20 years ago was the motivation for carrying out the current study to establish whether the capital structure adopted by insurance companies listed in Nairobi Securities Excahnge.

In developing countries, Gill and Mathur (2011) assessed the components that influence the impact of the organizations and the information utilized separately for the 166 organizations recorded on the Toronto Stock Exchange from 2008 to 2012. The final product allowed them to realize that the leverage impact positively affects the business in the administration division while it is adversely connected with the activity in the assembly division. The relationship between capital structure and firm performance was investigated by Salim and Yadav (2012), and their findings describe a negative relationship between firm performance and leverage. An examination in India by Goyal (2013) uncovered a positive relationship between a transient obligation and its benefit, while on the contrary it found a connection between gainfulness and long-haul necessity. Seyed and Pejman (2013) reported on the capital structure link with firm performance on the Tehran Stock Exchange and established a positive relationship between the two. Pinto et al. (2017) expressed the relationship between capital structure and firm performance from 2011 to 2015 in India by using regression analysis. The measurement variables were the debt to total assets and debt to equity leverage ratios and the return on capital employed (ROCE). They found a significant relationship between capital structure and firm performance. An investigation into the state of capital structure in a service industry in Kenya, insurance companies was of interest to the current study.

Putri and Rahyuda (2020) examined the impact of the capital structure on the debt to equity ratio proxy, sales growth with sales growth proxy, and profitability. The sample consisted of annual reports of 51 industrial consumer goods companies listed on the Indonesian Stock Exchange, and the data set was from 2013 to 2018. The results show that the debt to equity ratio proxy has a significant negative impact on profitability. Sales growth has a significant positive impact on profitability.

A comparison study of Pakistan, India, and Bangladesh was conducted by Ahmad (2015) on the value of export incentives for 2001–2011. The comparative analysis findings indicate that, due to having the highest export incentives, Bangladesh's textile sector is more export oriented than those of India and Pakistan. Chung et al. (2018) found a positive relationship between the performance of strategic exports and the financial export performance in the Korean clothing and textile sector.Thi et al. (2020) study which exhibited that 63 studies showed positive effects, 117 studies showed negative effects, and 65 studies showed insignificant effects. However, because rural banks in their operations depend more on short term debt, and this short term debt is used to lend back to customers, the relationship between total debt to total assets (TDTA) and short term debt to total assets (SDTA) is related to firm performance is expected to be positive.

Ngatno, Apiritini, & Youlianto (2020) results provide moderate evidence of a significant positive relationship between capital structure as represented by total debt and firm performance as represented by ROA and ROE. Results indicate a positive contribution of capital structure financing decisions on financial performance. However, this is only true for short-term debt. Long-term debt has a negative and insignificant effect on both ROA and ROE. These results support the view of the pecking order theory, which consists of empirical evidence of the opposite effect between firm profits and capital structure. His result shows evidence of CG in Indonesia in the form of control and monitoring of capital structure decisions and can increase company value. With the presence of a commissioner, the opportunistic manager's behaviour can be constrained, as evidence the commissioner can play an optimal role. Managers can make capital structure decisions, so that risky debt does not occur, resulting in an increase in firm value. In the case of Indonesia, what often happens is that managers act on their interests such as empire building, so that debt can reduce cash flow. If the company is in debt, the first is to pay interest and principal on the loan, thereby reducing managerial opportunistic behavior with additional monitoring from CG, thus increasing the value of the company.

Kisgen (2006) empirically tested the impact of credit ratings changes on firms' capital structure decisions. He found that a potential upgrade or downgrade can affect the firm's subsequent capital structure decisions, and the impact is more momentous on the crossover area between investment grade and speculative grade. He also concluded that firms near credit ratings change will issue approximately 1.0 per cent less net debt relative to net equity, and firms will be more concerned with broad ratings change (e.g. from A to BBBþ) as regulations are generally associated with broad rating levels.

Huang and Shen (2015) studied the cross-country variations that would affect the capital structure decisions after a change in firms' ratings. They found that a change in credit ratings has an asymmetric effect on the capital structure decision. They concluded that firms would adjust their leverage ratio after a ratings downgrade; however, firms

would not considerably adjust their leverage ratio after a rating upgrade. Huang and Shen (2015) also found that capital structure adjustments happen more quickly in countries with better financial development and legal environments than other countries, irrespective of the ratings upgrade or downgrade experienced by the firms. Therefore, they argued that credit ratings play a less crucial role in the capital structure adjustment than the financial development and legal and institutional environments in a certain country.

Studies of Jahanzeb et al. (2015) shows that the capital structure has a significant positive effecton profitability and dividend payments. However, the Mardones and Cuneo (2020) study show that there is no significant relationship between capital structure and firm performance (Return on Equity and Return on Assets). Furthermore, Chinaemerem and Anthony (2012) stated that the firm's capital structure has a negative impact on firm performance. They prove that high leverage has a negative impact on company performance. They prove that high leverage has a negative impact on company performance. From several studies, it can be underlined that the relationship between capital structure and firm performance shows inconsistent results. Therefore, the authors place CG as a moderating factor, so that it can further clarify the relationship.

Thoa et al. (2020) investigated the capital adequacy ratio of Vietnamese banks using dimensional banking factors. The study used seven years of data from 2009–2015. Bank size, liquidity, profitability, loan loss reserve, and loan were studied as determinants of capital adequacy ratio. To evaluate the data feasible generalized least square method was used. The findings indicate that liquidity and bank size are significantly predicting capital adequacy ratio negatively whereas other variables were insignificant in the study.

Bambang et al. (2019) employed data from 2014 to 2017 by taking bank size, bank efficiency, capitalization of banks, and loan to deposit ratio was studied as predictors of Indonesian banks' capital adequacy ratio. The fixed-effect model was used to examine the data and it was concluded that the bank size and loan to deposit ratio are predicting CAR significantly having a negative relationship, while on the contrary, bank equity was positively predicting CAR. While other variables namely, bank efficiency, bank capitalization was insignificant in the study.

In a study of Kuwaiti banks, Hewaidy and Alyousef (2018) found that bank liquidity, asset quality, management quality, and bank size are among the bank-specific variables that are significantly predicting the bank's CAR. Moreover, bank liquidity, asset quality, and bank size are negatively related to bank's CAR, whereas, management quality is positively related. All macroeconomic variables are found insignificant in the model. Moussa (2018) in their study for Tunisian banks also found that management quality, return on assets, inflation, and private ownership is affecting positively, whereas liquidity is negatively related to bank capital.

C. HYPOTHESES CONCEPTUALIZATION

The current study tested the following hypotheses using insurance companies listed in Nairobi Securities Exchange;

HO_1. There is no decisive role of the debt to equity ratio in the financial performance in insurance companies listed in Nairobi Securities Exchange.

HO_2. There is no significant role of the growthin the financial performance in insurance companies listed in Nairobi Securities Exchange.

HO_3. There is no significant role of Total Debt to Total Asset Ratio in the financial performance in insurance companies listed in Nairobi Securities Exchange.

HO_4. There is no significant role of differed tax payable in the financial performance in insurance companies listed in Nairobi Securities Exchange.

D. INSURANCE COMPANIES IN KENYA

The insurance industry in Kenya is governed by the Insurance Act (CAP. 487) and regulated by the Insurance Regulatory Authority. The Insurance Regulatory Authority is a statutory government agency established under the Insurance Act (Amendment) 2006, (CAP. 487) of the Laws of Kenya to regulate, supervise and develop the insurance industry. Insurance companies in Kenya operate under their association called Association of Kenya Insurers (AKI, 2016). This is the umbrella body, which brings the current 46 Insurance companies together. The membership of the Association is open to any Insurance company duly registered under the Insurance Act to transact business in Kenya. (AKI, 2016). The Nairobi Stock Exchange (NSE) was registered under the Societies Act (1954) as a voluntary association of stockbrokers and charged with the responsibility of developing the securities market and regulating trading activities. The exchange has experienced great growth even with the introduction of the Growth Enterprise Segment Markets. Under the insurance category, there are total of six firms; British-American Investments Company, Jubilee Holding, Liberty Kenya Holdings Limited, Kenya Reinsurance Corporation and Sanlam Kenya Plc.

III. MATERIALS AND METHODS

The study adopted casual research design taking panel data spanning ten years (2011-2020) were used for the analysis in the current study a time series data were collected. This study consisted of 6insurance companies listed on the Nairobi Securities Exchange (NSE). The data of the insurance companies were collected from annual reports, in which the individual was the company and the period was annual data, and our study was balanced as all the entities were observed for an equal period from 2011 to 2020 and all the firms remained listed throughout the period 2011–2021. The variables for this study were selected by comprehensively examining the earlier work undertaken in this area

Measures Dependent Variable	
Return on Asset	Net Income/Total Asset
Measures of the independent variables	
Debt to Equity	Long-term debt þ short-term debt/total shareholder equit
Growth	Used as a proxy for growth opportunities as reported by Zeitun and Tian (2007) as ¼ variation in the natural logarithm of sales.

Total Debt to Total Asset	Used as proxy of leverage
Taxation	Differed income tax

Table 1: Measures of the Variables

The following empirical model is estimated to test the relationship between the capital structures and financial performance among the insurance companies listed in Nairobi Securities Exchange.

$$Y_{it} = \beta_0 + \beta_1 DER_{it} + \beta_2 GO_{it} + \beta_3 TDTAR_{it} + \beta_4 DTAX_{it} + \varepsilon_{it}$$

Where

Y_{it} = Return on Asset (ROA)

β_0= Regression Coefficients constant

$\beta_{1....}\beta_3$ is the coefficients of the regressor variables

DER = Debt to Equity Ratio

GO_{it} = Growth Opportunities, proxy to Reinvestment of Profits

$TDTAR_{it}$ = Total Debt to Total Asset Ratio

$DTAX_{it}$ = Differed Tax

ε_{it} = the error term

To empirically test the regression model, Equation (1) is estimated by applying Fixed-Effects (FE) estimator.

A. DEPENDENT VARIABLE

The investigation used Return on Asset (ROA) as a proxy to financial performance of the insurance companies listed in Nairobi Securities Exchange.

B. INDEPENDENT VARIABLE

The study employs four predictors which are characterized by capital structure, namely Debt to Equity Ratio (DER), Growth Opportunities in terms of re-investing profits a source of financing the operations. The third predictor was Total Debt to Total Asset Ratio (TDTAR) which indicated how the insurance companies leveraged its debts and assets. The last predictor was the Differed Tax (DTAX) which the companies reinvested to finance their operations.

IV. EMPIRICAL RESULTS AND DISCUSSION

A. DEBT TO EQUITY RATIO AND THE FINANCIAL PERFORMANCE

Random-effects GLS regression			Number of obs =			60
Group variable: code			Number of groups =			6
R-sq: within = 0. 60			Obs per group: min =			3
between = 0. 417						
overall = 0.62						
			Wald chi2(1) =			4.98
corr(u_i, X) = 0 (assumed)			Prob > chi2 =			0.0256
roa	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
der	-.2056503	.0921263	-2.23	0.026	-.3862144	-0.0250862
_cons	.1980454	.0140542	14.09	0.000	.1704997	0.2255911
sigma_u	.07649953					
sigma_e	.07019818					
rho	.54287559	(fraction	of variance due to u_i)			

Table 4.2: Debt to Equity Ratio and the Financial Performance

There were a total of 60 observations used in this analysis considering 6 groups of entities implying strongly balance panels. The overall R^2 was 0.62 indicating that 62% of the variance of the insurance companies ROA was explained by the adopted capital structure compared to 38% which were explained by other factors outside the current study. The study established a statistically significant relationship between Debt to Equity Ratio and the insurance companies' ROA (r=-0.2056503, p=.026) as per table 4.2. This finding implied that when the insurance companies listed in Nairobi Security Exchange added 1 unit to their Debt to Equity Ratio, it resulted into a reduction of ROA with 0.2056503 multiple units. This finding therefore meant that the insurance companies listed in Nairobi Security Exchange choice of funding their operations using long term debt contributed negatively to their financial performance and therefore was not the best strategy in their capital structure.

B. GROWTH OPPORTUNITIES AND THE FINANCIAL PERFORMANCE

Random-effects GLS regression			Number of obs =			60
Group variable: code			Number of groups =			6
R-sq: within = 0. 524						
between = 0.4417						
overall = 0.489						
			Wald chi2(1) =			19
corr(u_i, X) = 0 (assumed)			Prob > chi2 =			0.000
roa	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
go	.2221864	.0509716	4.36	0.000	.122284	0.3220888
_cons	.1698475	.0131077	12.96	0.000	.144157	0.1955381
sigma_u	.07652268					
sigma_e	.06961556					
rho	.54715894	(fraction	of variance due to u_i)			

Table 4.3: Growth Opportunities and the Financial Performance

The results of the analysis of growth opportunities and financial performance had a total of 60 observations in the 6 groups of entities implying strongly balance panels. The overall R^2 was 0.489 indicating that 49% of the variance of the insurance companies ROA was explained by the adopted capital structure compared to 51% which were explained by other factors outside the current study. The study established a statistically significant relationship between growth opportunities occasioned by the forgone shares ploughed back as profit to be reinvested into the operations of the business and the insurance companies' ROA (r= 0.2221864, p=.000) as per Table 4.3. This finding implied that when the insurance companies listed in Nairobi Security Exchange reinvested 1 unit of their profits to the operations, it resulted into an increase in ROA with 0.2221864 multiple units. This finding therefore revealed that the insurance companies listed in Nairobi Security Exchange choice of funding their operations using growth opportunities contributed positively to their financial performance and therefore was one of the best strategies in their capital structure.

C. TOTAL DEBT TO TOTAL ASSET AND THE FINANCIAL PERFORMANCE

Random-effects GLS regression	Number of obs =	60
Group variable: code	Number of groups =	6
R-sq: within = 0.62		
between = 0.417		
overall = 0.5705		
	Wald chi2(1) =	22.28

corr(u_i, X) = 0 (assumed)			Prob > chi2 =		0.000
roa	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
tdta	0.4508575	.0955068	-4.72	0.000	-.6380474	-0.2636676
_cons	.2148964	.0142158	15.12	0.000	.1870339	0.2427588
sigma_u	.07652799					
sigma_e	.06948129					
rho	.54814985	(fraction | of variance due to u_i)			

Table 4.4: Total Debt to Total Asset and the Financial Performance

The results of the analysis of leveraging debts and assets and financial performance had a total of 60 observations in the 6 groups of entities implying strongly balance panels. The overall R^2 was 0.5705 indicating that 58% of the variance of the insurance companies ROA was explained by the adopted capital structure compared to 42% which were explained by other factors outside the current study. The study established a statistically significant relationship between leveraging debts and assets and the insurance companies' ROA (r= 0.4508575, p=.000) as per Table 4.4. This finding implied that when the insurance companies listed in Nairobi Security Exchange leveraged 1 unit of their debts and assets, it resulted into an increase in ROA with 0.4508575 multiple units. This finding therefore revealed that the insurance companies listed in Nairobi Security Exchange choice of funding their operations based on leveraging debts and assets contributed positively to their financial performance and therefore was also one of the best strategies in their capital structure.

D. DEFFERED TAX AND THE FINANCIAL PERFORMANCE

Random-effects GLS regression			Number of obs =		60
Group variable: code			Number of groups =		6
R-sq: within = 0.61017					
between = 0.41737					
overall = 0.60138					
			Wald chi2(1) =		13.56
corr(u_i, X) = 0 (assumed)			Prob > chi2 =		0.0002
roa	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
dt	0.0295119	.0080149	3.68	0.000	.0138031	0.04522
_cons	.0298184	.0438708	0.68	0.497	-.0561669	0.1158
sigma_u	.07651383					
sigma_e	.06983878					
rho	.54551472	(fraction | of variance due to u_i)			

Table 4.5: Differed Tax and the Financial Performance

The results of the analysis of differed Income Tax and financial performance had a total of 60 observations in the 6 groups of entities implying strongly balance panels. The overall R^2 was 0.60138 indicating that 60% of the variance of the insurance companies ROA was explained by the adopted capital structure compared to 40% which were explained by other factors outside the current study. The study established a statistically significant relationship between leveraging debts and assets and the insurance companies' ROA (r= 0.0295119, p=.000) as per Table 4.5. This finding implied that when the insurance companies listed in Nairobi Security Exchange differed Income Tax by 1 unit, it resulted into an increase in ROA with 0.0295119 multiple units. This finding therefore revealed that the insurance companies listed in Nairobi Security Exchange choice of funding their operations based on differed Income Tax contributed positively to their financial performance and therefore was further one of the best strategies in their capital structure.

E. MULTIVARIATE REGRESSION BETWEEN CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE

In order to arrive at the conclusion on the effect of capital structure on financial performance of insurance companies listed in Nairobi Security Exchange, multivariate regression between capital structure and financial performance was carried out.

Random-effects GLS regression			Number of obs =		60
Group variable: code			Number of groups =		6
R-sq: within = 0.398					
between = 0.1006					
overall = 0.4166					
			Wald chi2(7) =		34.17
corr(u_i, X) = 0 (assumed)			Prob > chi2 =		0.000
roa	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
der	-.2506588	.1375203	-1.82	0.038	-.5201936	0.018876
go	.0487466	.0231323	2.11	0.035	.0034081	0.0940851
tdta	.1516201	.113025	1.34	0.180	-.0699048	0.3731451
dtax	0.0010647	.0004011	-2.65	0.008	-.0018507	-0.0002786
_cons	.0157124	.1054609	0.15	0.882	-.1909871	0.2224119
sigma_u	.07718613					
sigma_e	.06924405					
rho	.55407889	(fraction | of variance due to u_i)			

Table 4.6: Multivariate Regression between Capital Structure and Financial Performance

The results of the analysis of all the considered capital structure and financial performance had a total of 60 observations in the 6 groups of entities implying strongly balance panels. The overall R^2 was 0.4166 indicating that 42% of the variance of the insurance companies ROA was explained by the adopted capital structure compared to 58% which were explained by other factors outside the current study. Although bivariate regression results on the relationship between each of the capital structure and financial performance of the insurance companies listed in Nairobi Security Exchange was significant, when the 4capital structure strategies were combined in multivariate regression, leveraging of debts and assets did not have effect significant effect on financial performance of the insurance companies listed in Nairobi Security Exchange measured in terms of ROA.

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSION

The original objective of the study was to analyze the effect of capital structure on financial performance of the insurance companies listed in Nairobi Security. In order to arrive at the results of the objectives, we hypothesized that; HO_1. There is no decisive role of the debt to equity ratio in the financial performance in insurance companies listed in Nairobi Securities Exchange; HO_2. There is no significant role of the growth in the financial performance in insurance companies listed in Nairobi Securities Exchange; HO_3. There is no significant role of Total Debt to Total Asset Ratio in the financial performance in insurance companies listed in Nairobi Securities Exchange, HO_4. There is no significant role of

differed tax payable in the financial performance in insurance companies listed in Nairobi Securities Exchange.

The results from the panel data revealed that there was significant positive relationship between growth opportunity, Total Debt to Total Asset Ratio and differed Income Tax payable and financial performance in insurance companies listed in Nairobi Securities Exchange. This indicated that when insurance companies listed in Nairobi Securities Exchange increased these three capital structure strategies by 1 unit, it increased their financial performance measured in terms of ROA by positive multiple units as shown in Tables; 4.3, 4.4 and 4.5. On the other hand the study established significant negative relationship between debt to equity ratio and financial performance in insurance companies listed in Nairobi Securities Exchange. This indicated that when insurance companies listed in Nairobi Securities Exchange increased debt to equity ratio capital structure strategy by 1 unit, it decreased their financial performance measured in terms of ROA by 0.2056503 multiple units as shown in Tables; 4.2.

Lastly, the study established that although bivariate regression results on the relationship between each of the capital structure and financial performance of the insurance companies listed in Nairobi Security Exchange was significant, when the 4 capital structure strategies were combined in multivariate regression, leveraging of debts and assets did not have effect significant effect on financial performance of the insurance companies listed in Nairobi Security Exchange measured in terms of ROA.

B. RECOMMENDATIONS

a. POLICY RECOMMENDATIONS

The levels of capitalization of insurance companies in Kenya are important as a strategy of providing a shield to the insurance sector against failing investments and being starved financially. Policymakers and regulators including the Central Bank of Kenya (CBK) and Insurance Regulation Authority (IRA) should provide policy direction on how the insurance companies can utilize debts, reinvestment of profits, leveraging of debts and assets and use differed Income Tax in financing their operations. These two policy bearers should continuously regulate the insurance industry to ensure that sector is appropriately applying capital structure polices that favors their growth apart from the strategies we analyzed. This will boost investor confidence in the insurance sector and enhance investment in the industry.

C. FUTURE RESEARCH

The insurance sector of Kenya comprises several insurance companies that jointly constitute the Kenya financial sector. The author recommends that future studies may be directed towards empirically analyzing the effect of capital structure on financial performance of all the licensed insurance companies in Kenya. Furthermore, studies should expand other proxies of capital structures and financial performance that we did not analyze to immensely contribute much knowledge in financing insurance business in Kenya.

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