# Capital Structure And Financial Performance Of Insurance Firms Listed On The Nairobi Securities Exchange

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**Abstract**
*Capital structure is an important concept especially to profit making organizations. The operations, growth, pertuity and overall performance of a company is engineered by how well management can utilize and maximize the limited resources to increase total output in a harsh economic environment. Insurance companies have over the past experienced a plethora of issues that have seen many of the being underwritten, others have undergone absorption by larger firms, others have been placed under statutory management while others have completely gone bankrupt. Reports by IRA show that the insurance industry has faced several challenges such as price undercutting, fraud was up by 7%, premium collection, inadequate intermediary services, structural challenges, low retention levels, low purchasing power, licensing issues, debt management which manifested as credit control, inflation, limited visibility etc. Other reports point out that insurance companies have over the past half a decade been regular candidates of acute operational inefficiencies which have continued to dilute their profitability. This research investigated the Capital Structure and Financial Performance Of Insurance Companies Listed At The Nairobi Securities Exchange. The data was collected from six insurance companies and was primarily secondary in nature. There were three independent variables; debt, equity and convertible bonds and one dependent variable; financial performance.*
**Keywords:** *Capital structure; debt, equity and convertible bonds;Financial performance of listed Insurance firms on NSE.*

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## I.    Introduction.

In today's competitive and dynamic business world, financial decisions play a fundamental role in the firm's day to day performance and operations.

Investing and funding are among the two main most important decision areas in the company. The process in which the firm is funded by a mixture of debt and equity is called capital structure decision. When firm take the funding decision, the directors are interested in choosing the best  the financial structure for their firms. Ambitious companies have sought bigger ways to expand and develop their financial capacities. As a result of this, theories have been developed which have continued to shape the viewpoint of organizations use of debt and equity. Mutua & Atheru, (2020)  citing Arulvel & Ajanthan, (2013) Capital structure is the most significant decision in a company not only on the maximization of shareholders' wealth, but also the decision determines the ability of the company to sustain a competitive edge. The key sources that organizations may get their finances from are internal funding which is retained earnings, and external funding which could either be equity or debt. Retained earnings refer to the amount of the company's profit that remains after allotment of surpluses to the stockholders and then plowed back to the business. Retained earnings are quite significant source of internal funding in a company because they do not involve floatation costs as well as increasing financial responsibility and risk. Onkware, (2022) citing Masood, (2018) explained  that retained earnings promote growth of a company as well as its ability to maximize the shareholders' wealth (Masood, 2018). The capability that a business has in fulfilling the shareholders' interests is closely connected to its financial structure or composition of its capital. Since the capital structure of a firm is difficult to determine and there may be difficulties to exactly determine the optimal capital structure firm's financial managers have to issue various securities in a countless mixture to come up with particular combinations that can maximize its overall value which means optimal capital structure (San & Heng, 2011).

Scholarly literatures by Gonzales (2021), Ogundipe et al. (2020) and Velnampy (2020) show a significant adverse relation between capital structure and performance while Other scholarly studies carried out by Yazdanfar (2020), Abata & Migiro (2019) and Aburub (2020) discovered that capital structure has no influence on financial performance. Financial performance can be defined as the ability of a firm to achieve the range of set financial goals such as profitability.

Shukrani, & Ali, (2020) Citing Chimkono, (2016)Financial performance is usually used to determine the financial health of a company or business and the results obtained can be compared with similar results for other firms in the same industry. According to Yasmin & Hassan, (2022) Financial performance is an aspect that is measured using Market to book value, ROE, earnings per share, gross profit margin, net profit margin, total asset turnover, Tobin's Q and ROA. Ahmed, (2018) citing Milinovic, (2014) ROA is a measure that indicates the capacity of the bank to utilize the assets at its disposal to generate profits. A steady financial performance is a good signal to investors and creditors. It is therefore imperative for any and all insurance companies to uphold and build a financial performance that will get them accepted by many creditors. Wako, (2023) citing Kopyakova, Beusichem, Kabir, & Essa,( 2017) explained that the World Bank, Kenya has the third largest financial sector in sub-Saharan Africa However, the insurance industry in Kenya has had a relatively low penetration rate of 2.7% compared to the global rate of 6% (IRA, 2019). This explains the need to look intently into the subject matter of what influences the financial performance of insurance companies especially the leading ones.According to Abor (2016) & Mukumbi et al (2020), there is a relationship between the choice of capital structure by a company and its overall market value because this choice determines how the operating cash flows are shared between owners (shareholders) and debt holders. They posited that increased leverage by a company increases its value up to a point, beyond which any further increase raises the overall cost of capital and decreases its market value. Parise, (2018) cited that, previous literature explains that "deep-pocketed firms" will attempt to drive financially constrained competitors out of business (see, e.g., Telser (1966); Bolton and Scharfstein (1990)), while highly leveraged incumbents are less likely to survive in a competitive environment (Zingales, 1998). The economic scene grows tougher on a daily basis as such the capital structure and resilience of insurance firms determine which ones survive and which ones do not. 'The choice of financing is crucial for every organization since an ideal capital structure between debt and equity influences not only the firm's value but also the stock prices in the Securities Exchange Market.' (Muge, 2018).

The Nairobi Stock Exchange was created in 1954 and was form to grow the stock market and control the transactions of shares and other financial securities. In 2004, the NSE created a central depository system in response to a higher demand for shares and share transaction. This system was actually an automation of shares transactions and other financial security. In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange (NSE) Limited in order to undertake strategic plan which lead to a full service securities exchange supporting trade of financial securities, clearing and settlement of equities, debt, derivatives and other associated instruments (Ombaba, 2015). The NSE is constituted by nine main indices used to measure the performance of companies stocks. The NSE is the leading stock exchange in East Africa and operates under the jurisdiction of the Capital Markets Authority of Kenya, and is governed by an 11-member board of directors. The Exchange offers a world class trading facility for both local and international investors looking to gain exposure to the Kenyan economy (NSE, 2013). The Nairobi Securities Exchange includes 6 listed insurance firms which are Jubilee Holdings Ltd, Sanlam Kenya Plc., Kenya Re-Insurance Corporation Ltd., Liberty Kenya Holdings, Britam Holdings Plc. and CIC Insurance Group Ltd.

### Statement Of The Problem.

Kathanga,, Awino, & Kabiru, (2016) identified several challenges that faced the growth of the insurance industry, some of these challenges included; lack of enough mechanisms in a bid to improve public awareness and image, increased competition which comes externally and internally, fraud was also found to be high and it was also a cause for the downfall of many insurance companies and excessive claims was also a cause for reduced liquidity and profitability of insurance firms. According to AKI Insurance industry annual report (2019), only a few top players in the insurance industry dominate the market share with the top 10 players controlling over 60% of the market share as measured by gross written premiums. Most of the industry players are largely not profitable from their core business. It also raises the question of how do insurance companies finance their operations and ensure profitability as well as a steady competitive edge. The topic of capital structure has received a lot of attention from finance scholars but so far, no consensus has been reached among researchers about an optimal capital structure. It has also been found out from conducted research studies that examine the relationship between financial leverage and firm's performance and empirical evidence from the studies produce contradicting and mixed result. For instance, Darush & Peter (2015) found that debt level has a significant influence on the performance of SMEs. In studies carried out by Sivathaasan & Rathika (2020), Kaumbuthu (2020), Obim et al. (2020), Huizinga & Nicodeme (2021), capital structure has been demonstrated to be decidedly and altogether positively related to financial performance. Then again, scholarly literatures by Gonzales (2021), Ogundipe et al.

(2020) and Velnampy (2020) show a significant adverse relation between capital structure and performance. Other scholarly studies carried out by Yazdanfar (2020), Abata & Migiro (2019) and Aburub (2020) discovered that capital structure has no influence on financial performance. E.g. Kamau (2010) found that there was a weak relationship between financial performance and capital structure, hence debt to equity ratio accounted for a very small percentage of financial performance of insurance companies in Kenya. These inconsistencies created a scholarly gap and gave a need to undertake an incisive examination on the subject matter it. In other industries e.g. cement, textile, and energy sector the results proved that profitability and asset tangibility are the most consistent determinants of capital structure in all the three sectors while in SMEs results acquired were that profitability, company size, asset structure, management attitude towards risk and lenders' attitude towards the company are key determinants of capital structure for small and medium enterprises in Kenya. This shows that there are varying outcomes in industries. Moreover,  Mutegi, (2018) citing Mbogo (2010) reported that the Kenyan Insurance market has a low penetration rate which presents the industry with valuable potential as a significant population does not have insurance cover. Furthermore the consumption of insurance products in Kenya is mainly dominated by Motor, fire, industrial and personal accident covers schemes. Hence, there remains a huge untapped market in the insurance sector which these companies can invest in. According to Levasseur (2002), information on financial performance is useful in predicting the capacity of the enterprise hence analyzing how well or poorly an enterprise is doing against its set objectives.

### Objective of the study
### General Objective.
To evaluate the of influence of capital structure on financial performance of insurance firms listed at the Nairobi Securities Exchange

### Specific Objectives
i. To study influence of debt on financial performance of insurance firms listed at the Nairobi Securities Exchange
ii. To examine influence of equity on financial performance of insurance firms listed at the Nairobi Securities Exchange
iii. To determine the influence of hybrid securities on financial performance of insurance firms listed at the Nairobi Securities Exchange

### Research Hypothesis.
$H_{01}$ : There is no significant relationship between debt  and financial performance of insurance firms at the Nairobi Securities Exchange
$H_{02}$ : There is no significant relationship between equity and financial performance of insurance firms listed on the Nairobi Securities Exchange
$H_{03}$ : There is no significant relationship between hybrid securities and financial performance of insurance firms at the Nairobi Securities Exchange.

## II.    Literature Review.
### Theoretical Review.
The Pecking order theory was formulated by Donaldson 1961 and later improved by Myers (1984) and sought to deal with issues that had arisen from static trade off theory. The pecking order theory states the three available sources of funding firms are; equity, retained earnings and debt Myers, (1994). Kinyua,  (2022) citing Allini, Rakha, McMillan& Caldarelli, (2018) explained that when companies are faced with no alternative option in the internal financing of the business other than the external funding, then the most priority will borrow through the debt issue since its less risky. The firm prioritizes their sources of funding in connection with the rule of the least exertion, which prefers to raise the equity as methods for the final resort (Christine & Ambrose, 2020). Thus the basis of the pecking order theory is that organizations have a duty to first consider their internal financing before they opt for external financing. According to Kithandi, & Katua, (2019) the preference on internal sources of finance is because internal sources of finance have no fixed cost attached to them as compared to external financing. However, if internal financing falls below their need and requirements they can use trade payables or retained earnings or opt for debt. Kithandi, & Katua,  (2019) Citing Baskin, (2002) explain that firm should issue securities with low informational cost before issuing securities with high informational cost; hence a firm should therefore utilize short term debt to exhaustion before issuance of long term debt.

The Trade off theory was coined by Myers (1984). The trade-off theory shows us how firms choose between how much   debt finance or equity finance to use by looking at merits and demerits of equity and debt. Therefore in so doing top management is able to rank their need and urgency leading to a more favorable funding method. According to Dennis (2022), The trade-off theory states and explains that businesses uses a combination

of financial decisions to figure out how much debt and equity financing it needs. Managers have a choice to choose between debt financing or equity financing. There is no denying that both options do work but should be used prudentially and a balance should be struck otherwise the consequences would be dire such as failure to maximize shareholders' wealth or over reliance on debt leading to insolvency

Signaling Theory was coined by Ross, (1997). According to Ross (1977), managers, have full information about their firm and with rewards depending on the current value and future returns of the firm, have the motivation to credibly signal this information to outside investors. This theory guides that managers know more about the amount of the financial resources of a company than shareholders as such they have information on the company's future investment opportunities compared to the shareholders and investors. This means that managers can easily solicit for funding by convincing the investors that their companies are undervalued if at all the company is less competitive. Managers issue debt first and use equity as a last resort. This is because use of leverage is a sure sign of the company's future returns and this lures the investors in and that the company has sufficient resources to meet all their financial obligations. However, failure to pay the debts can also lead to bankruptcy.

**Empirical Review.**

Abubakar, (2021) underook a research on *'Financial leverage and financial Performance of oil and gas companies in Nigeria*. The conclusion of this paper showed that oil firms need to consider carefully at the value of debt in relation to equity. This is because it was noted that debt as a leverage is an impediment to progress and improvement of financial performance.it was also noted that persistent and continuous use of debt would have a negative impact on shareholder's wealth. 'In other words, higher financial leverage in the capital structure of oil and gas firms in Nigeria deteriorates shareholders' wealth measured by the ROE.' ( Ahmadu 2021). He also recommended that debt-equity ratio should be reduced as well as a reduction in floatation costs by regulatory authorities.

Ogolla, (2021) undertook research '*Influence of financial leverage on financial performance of firms listed under construction allied sector at the NSE*.' The researcher applied financial leverage which was the independent variable it was measured using Debt Ratio while the dependent variable was financial performance measured using ROA. He concluded that financial performance was revealed to be positively and significantly influenced by financial leverage. Other mediating factors such as sales growth, liquidity and size of firm were also noted to significantly influence ROA.

Chen, (2020) conducted a research on *'Financial leverage on firm performance- based on the moderating role of operating leverage.'* The research was done between 2010-2019. Financial performance was measured using ROA while financial leverage was measured using short term debts and long term debts. Moderating variable was operating leverage and it was measured using ratios of sales, general and administrative expenses. The outcome of the research showed higher financial leverage could adversely impact firm performance. His studies showed that financial leverage and financial performance are inversely interconnected. His finding was also same as that of other scholars who had done longitudinal studies.

Collins, (2019) undertook a study on '*Capital structure and financial performance of insurance companies listed at the Nairobi Securities Exchange*.' The researcher utilized debt, equity and preference shares as the independent variables and ROE, ROA and EBIT to analyze and measure firm performance which was the dependent variables. The data ranged from 2013 – 2017 for listed companies on NSE. The findings were that debt had a strong effect on financial performance which ultimately resulted to better performance, this was because the an increase in debt led to increase in output by 17.6 % while an increase in equity led to a 21.8% increase in financial performance. Preference shares were found to have an unfavourable effect to financial performance.

Kithandi, & Katua, (2019). , undertook a study on *financial leverage and financial performance of the energy and petroleum sector companies listed at the Nairobi Securities Exchange*. He used Modigliani-Miller, pecking order and trade off theory. His target population and sample size was 5 energy companies on the NSE. The independent variables were; debt ratio, debt to equity ratio and interest coverage ratio while dependent variables were financial performance measured using ROE or ROA. His research concluded that there is negative relationship between financial leverage and debt financing. He realized debt financing reduces company profits. He also noted that financial leverage and dividend payout of firm are interdependent.

Chepkwony,(2018) studied on *'The effect of capital structure on financial performance of commercial and service firms listed at the NSE*.' The researcher used capital structure for the independent variable which was measured using Debt ratio while the dependent variable was financial performance measured using ROA. Other variables were firm size and liquidity which w ere the control variables. There was a positive but insignificant between liquidity and financial performance. There was a fragile and negative link between financial performance and capital structure. Firm size was found to have an insignificant determinant of financial performance.

Ahmed, (2017) undertook a study on *'The effect of financial leverage on financial performance of manufacturing and allied firms listed at the NSE.'*The study considered 10 manufacturing and allied firms. There were three independent variable; financial leverage, control variables was firm size, capital intensity, sales growth and asset structure while dependent variable was financial performance. The findings were that financial leverage has insignificant negative effect. It also revealed that findings revealed that financial performance was positively and insignificantly affected by the firm's asset structure. Also relationship between firm size and financial performance is negative and significant. He further recommended that management should hold optimum debt levels in their financial structure to avoid bankruptcy and debt related effects

## III. Research Methodology.

### *Research design*
A research design is seen as a preconceived plan according to which data was collected, analyzed and presented. This research will employed a quantitative approach which was used to offer numerical data that can be used to draw certain conclusions. Longitudinal rearch design was used to gather information on a population at a single point in time

### *Population*
The population comprised of the total firms that operate in Insuarance or Re-insuarance were a total of 58 insurance companies in Kenya.

### *Sampling Design*
Purposive sampling method whereby only Insurance firms enlisted on NSE will be considered for this research. The insuarance companies were 6 and comprised; Liberty Kenya Holdings (LKH), Jubilee Insurance, Britam, Kenya Re-Insurance (Kenya Re), CIC Insurance, and Sanlam Insurance.

### *Data collection instruments*
The was gathered from data extracted from individual company annual reports, specifically focusing on the period 2017-2022 and fed into the data collection sheet. The reports are to be obtained from specific individual firm's annual reports other sources included the CMA reports.

### *Data analysis*
For the analysis of the data, SPSS software version 25 and Microsoft excel 2013 were used. The researcher quantitatively presented the findings using graphs and tables. Inferential and descriptive statistics were employed for summarizing and explaining the study variables that were observed in firms. The results were presented using percentages, frequencies, measures of central tendencies and dispersion displayed in tables.

### *Statistical Model Specification*
This research adopted Multiple Regression Analysis model whereby it sought to establish the relationship between the dependent and independent variables simultaneously. 'Multiple regression refers to a set of independent variables and one dependent variable. It is expressed by;-
$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$ where:
$Y$= Financial Performance of Listed Insurance Firms
$X_1$= debt
$X_2$= equity
$X_3$= Convertible bonds
$\beta_0$ = Constant of Listed Insurance Firms
$\beta_1 - \beta_5$ = Regression Coefficients
$\varepsilon$ = Error terms

## IV. Findings

### *Diagnostic Test*
Multicollinearity was tested using tolerance, and variance correlation analysis. The variables have a VIF that is less than 10 and tolerance value more than 0.1 ruling out the possibility of multicollinearity (Jensen & Ramirez, 2013). Debt had a VIF of 2.004, Equity had 1.410 and Hybrid securities had a VIF of 1.707. The tolerance value was 0.499 for debt, 0.709 for equity and 0.586 for hybrid securities.
Shapiro-Wilk test was used for testing normality. The significance levels of all the variables were more than 0.05 with Debt having 0.960, Equity had 0.961, Hybrid securities were at 0.972 and Financial performance had 0.975. This made a clear indication that all the variables were normally distributed and therefore other statistical analysis could be carried out on the data.

### *Descriptive statistics*

**Table 4.1 Descriptive statistics**

| Variable | Observations | Mean | Std. dev | Min | Max | CV |
|---|---|---|---|---|---|---|
| Debt | 100 | 0.2002 | 0.1866 | 0.000000 | 1.1270 | 0.9321 |
| Equity | 100 | 0.1002 | 0.1566 | 0.001601 | 1.13400 | 1.5624 |
| Convertible bonds | 100 | 0.29156 | 0.2569 | 0.0089 | 2.5376 | 0.8790 |

The descriptive results showed that, the standard deviation for debt was 0.1866 while the mean value for debt was a mean of 0.200195 with a minimum of 0.000000 and a maximum of 1.1270. Equity had a mean of 0.1002, standard deviation of 0.1566 with a minimum of 0.0016 and a maximum of 1.1400. Convertible bonds had a standard deviation of 0.2559, a mean of 0.2914, minimum of 0.0079 and maximum of 2.5356.

### *Debt*

The short-term ratio indicated that the listed insurance firms were able to deliver payments on their outstanding short-term liabilities. Insurance firms which relied on short term funding were more vulnerable to liquidity shocks than those with longer-term debt finance as debt facilities can be withdrawn immediately. While insurance firms with short term financing are likely to have a lower cost of debt than those with longer-term financing, should interest rates rise, those with short term financing will see rates rise faster. The study results concured with Baum, Schafer and Talavera (2006) who showed that German firms rely more heavily on short-term liabilities are likely to be more profitable and hence financial growth of the firm. García-Teruel & Martínez-Solano (2008) established that short-term debt is positively related to a firm's profitability and hence financial growth. According to García-Terul and Martinez-Solano (2007), short-term debt is firmly correlated with a firm's growth opportunities. The anecdotal evidence suggested that there is a positive relationship between short term debt financing and the financial performance of the firm (Yazdanfar & Öhman, 2015).

### *Equity*

Equity capital had a mean of 0.100219 with a minimum of 0.001601, a maximum of 1.139994 and standard deviation of 0.156585. The results implied that 10.0219% of aggregate financing needs of the insurance firms listed at NSE were through sale of shares. The shareholder capital ratio shows how much of a firm's assets are funded by issuing stock rather than borrowing money. The closer a firm's ratio result is to 100%, the more assets it has financed with stock rather than debt. The ratio is an indicator of how financially stable the firm may be in the long. This find agrees with that of Ebaid (2009) who found out that share capital has a significant relationship with return on assets.

The ordinary share capital has equity ownership in the company in proportion to their holdings while preference shares are intended to raise capital without diluting value for their ordinary shareholders (Tsoy & Heshmati, 2017).

### *Convertible bond*

Convertible bond had a mean of 0.2914, standard deviation of 0.2559, minimum of 0.0079 and maximum of 2.5356 these findings show that insurance firms listed at NSE are able to finance most of their operation from their convertible bonds. According to Kim and Han (2019) indicated that convertible bond issues have significantly positive cumulative abnormal returns around the announcement in Korea. In particular, issuing firms that state capital expenditure as the use of proceeds have significantly higher cumulative abnormal returns compared to firms that state other purposes.

### *Financial performance.*

Financial performance of the listed insurance firms was measured using return on equity and return on assets share and growth in market capitalization. Return on equity steadily rose between the years of 2012 to 2016 after which it started going down in between the year 2017 which was a very competitive election year and further went down in the year 2020 due to Covid 19 related lockdowns. Smart and Graham (2012) concurred by suggesting that an entity's financial performance is determined by performance indicators such as ROE which is disclosed in the financial statements of firms according to the specifications of the specific accounting standards applied in the respective country. Furthermore, authors have argued that ROE has become a useful investment decision tool for investors, because it indicates future prospects and growth (Mlonzi, Kruger & Ntoesane, 2011). The results show that financial performance of the listed insurance firms improved progressively between 2012 to 2020 when it slowed down due to Covid 19 related problems. These findings are in agreement with Yang and Gan (2021) revealed that compared with ordinary debt financing, the combined financing mode of contingent convertible and ordinary debt can effectively alleviate the debt overhang problem and eventually improve firms' value.

*Correlation analysis*

**Table 4.2. Relationship between capital structure and financial performance on Return on equity**

| | Financial performance in ROE | Debt | Equity | Convertible bond |
|---|---|---|---|---|
| Financial performance in ROE | 1.000 | | | |
| Debt | 0.7108 0.0001 | 1.000 | | |
| Equity | 0.8288 0.000 | 0.4929 0.000 | 1.000 | |
| Convertible bonds | 0.7495 0.0044 | 0.3933 0.000 | 0.2072 0.0001 | 1.000 |

The correlation results found debt and financial performance on return on equity have high positive and significant association (β=0.7108, r=0.001).

The results found out that, equity has high positive and significant correlation with financial performance on return on equity (β=0.8288, r=0.000). The results agreed with findings of Thirumalaisamy (2017) that firms with low investment opportunities for financial performance prefer to distribute much of their earnings as return on equity. Thus, the level of ROE is very much influenced by the capital structure of the firms.

Finally, the findings also indicated that convertible bonds has high and effective correlation with financial performance on ROE (β=0.7495, r=0.0045).

**Table 4.3 Relationship between capital structure and financial performance on Convertible bonds**

| | Financial performance in ROA | Debt | Equity | Convertible bond |
|---|---|---|---|---|
| Financial performance in ROA | 1.000 | | | |
| Debt | 0.7212 0.000 | 1.000 | | |
| Equity | 0.623 0.0195 | 0.2229 0.000 | 1.000 | |
| Convertible bonds | 0.755 0.0033 | 0.3933 0.000 | 0.1104 0.0362 | 1.000 |

The correlation results convertible bond has high positive correlation with financial performance on Convertible return. (β=0.7212, r=0.000). The studies undertaken by Zhao, Deng, Chen, Wang, Song, Zhang and Zeng (2019); Kithinji and Simiyu (2021); Kijkasiwat and Phuensane (2020) established that the correlation between variables is deemed to be high if the correlation coefficient is above 0.5. (Liao et al., 2022) noted that as for the framework in terms of CBs and firm value, we argued that CBs might enhance firm value because of improved capital structure, financial flexibility, and lowering the cost of capital stemming from interest expense saving by offering an option (i.e., the option for converting CBs to common stocks). In other words tax savings and reduction in agency costs, might enhance firm value, possibly linking the relationship between CB-IV and firm value.

*Impact of debt on financial performance on listed insurance firms on the NSE.*

**Table 4.4 Impact of debt on financial performance on listed insurance firms on the NSE.**

| Financial performance| | Coef | Std. Err | T | P>|t | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Debt | 0.038201 | 0.009365 | 4.08 | 0.000 | 0.019847 | 0.056555 |
| β0 | 2.731963 | 1.198171 | 2.28 | 0.023 | 0.383591 | 5.080334 |
| R-squared: | 0.2599 | | | | | |
| Wald chi2(1) | 16.64 | | | | | |
| Prob | 0.0000 | | | | | |

The model indicated that debt accounted for atleast 25.99% of variation in the financial performance. This implies that 25.99% of variation in financial performance was influenced by short term debt. Furthermore, the findings confirmed that debt has a positive and significant effect on financial performance (β=0.038201, p=0.000). The effect of debt on financial performance is statistically significant since the calculated p-value of 0.000 <0.05. This meant that a unitary increase in debt led to an increase in financial performance by 0.042264.

***Impact of equity on financial performance***
**Table 4.5 Impact of equity on financial performance**

| Financial performance| | Coef | Std. Err | T | P>|t | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Equity | 1.421105 | 0.373815 | 3.8 | 0.000 | 0.688441 | 2.15377 |
| β0 | 1.27142 | 0.925728 | 1.37 | 0.17 | 3.08582 | 0.542971 |
| R-squared: | 0.2127 | | | | | |
| Wald chi2(1) | 14.45 | | | | | |
| Prob > chi2 | 0.0001 | | | | | |

The model indicates that equity explain 21.27% of variation in financial performance. This means 21.27% of variations in the financial performance is influenced by equity. Panel results revealed that equity has positive and significant effect on financial performance (β=1.421105, p=0.0001).

***Impact of Convertible bonds on financial performance***
**Table 4.6 Impact of convertible bonds on financial performance**

| Financial performance | Coef | Std. Err | T | P>|t | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Convertible bonds | 0.026971 | 0.009395 | 2.86 | 0.004 | 0.008456 | 0.045285 |
| β0 | 1.547499 | 1.169374 | 1.32 | 0.186 | -0.74443 | 3.83943 |
| R-squared: | 0.2273 | | | | | |
| Wald chi2(1) | 8.18 | | | | | |
| Prob > chi2 | 0.0042 | | | | | |

The model indicated that, Convertible bonds accounted for 23.03% of variation in financial performance of listed firms and that 23.03% of variation in financial performance is influenced by convertible bonds. Convertible bonds have positive and significant effect on financial performance of listed firms (β=0.026971, p=0.004).

***Test for hypothesis***
***There is no significant relationship between debt and financial performance of listed insurance firms***
The findings showed that debt accounted for 25.99% of variation in the financial performance. This means that 25.99% of variation in financial performance is influenced by short term debt. The findings further confirmed that debt has a positive and significant effect on financial performance (β=0.038201, p=0.000). The effect of debt on financial performance is statistically significant since the calculated p-value of 0.000 <0.05. This means that a unitary increase in debt leads to an increase in financial performance by 0.042264.

Therefore, this research adopted alternate hypothesis, there is a significant relationship between debt and financial performance of listed insurance firms. This finding coincides with that of Collins, (2019) identified that if there was growth in debt there would be increase in financial performance of insurance firms. Wanjiru, (2014) who pointed out that there was a strong a significant relationship between capital structure and asset tangibility, firms' profitability and the number of registered trademarks. Wabwoba, (2022) explained that there was a positive and significant interconnection between capital structure and financial performance of listed agricultural firms. Other scholars who agree with this finding were; Mwenda, (2018) and Hassan, (2012). However, researchers such as Kamau, (2010) highlighted a weak relationship between capital structure and financial performance during regression analysis.

***There is no significant relationship between equity and financial performance of listed insurance firms***
The findings showed that equity has positive and significant effect on financial performance (β=1.421105, p=0.0001). Therefore, this research adopted alternate hypothesis, there was a significant relationship between equity and financial performance of listed insurance firms. This result corresponded to that of Collins, (2019) identified that if there was growth in equity there would be increase in financial performance of Kenyan insurance firms. Kamau, (2010) identified a positive relationship between ROE and Debt to equity ratio.

***There is no significant relationship between hybrid securities and financial performance of listed companies***
The findings showed that Convertible bonds have positive and significant effect on financial performance of listed firms (β=0.026971, p=0.004). Therefore, this research adopted alternate hypothesis, there is relationship between hybrid securities and financial performance of listed insurance firms. This finding coincided with Shijie, (2023) whereby, non-financial listed firms that used corporate convertible bond from 2017 recognized a significantly higher ROA. Obong'o, (2020) identified that there was no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi county, Kenya in the null

hypothesis which was later rejected as such it was established that there was a significant strong statistical relationship between convertible bond and liquidity growth.

*Summary of Hypothesis tested.*

**Table 4.7 Summary of null Hypothesis testing.**

| | Test | Finding |
|---|---|---|
| $H_o$ | **There is no significant relationship between debt and financial performance of listed insurance firms** | There was a 25.99% of variation in financial performance influenced by short term debt. The findings further confirmed that debt has a positive and significant effect on ROA and ROE that a unitary increase in debt leads to an increase in financial performance by 0.042264. |
| $H_o$ | **There is no significant relationship between equity and financial performance of listed insurance firms** | The findings showed that equity has positive and significant outcome on financial performance (β=1.421105, p=0.0001). This research adopted alternate hypothesis, that there is significant relationship between equity and financial performance of listed insurance firms. |
| $H_o$ | **There is no significant relationship between convertible bond and financial performance of listed companies** | The findings revealed that Convertible bonds have positive and significant ramification on financial performance of listed firms (β=0.026971, p=0.004). This led to the adopting the alternate hypothesis. |

## V.   Conclusion.

Debt play a key role on financial performance of listed insurance firms. The findings show that listed insurance firms used mostly long-term debt to manage their day to day activities hence they were able to deliver on their mandates. Long-term debt also contributed in acquisition of assets which provided financial balance when the needs arises. Dao, (2020) Found a negative raltionship between financial performance and capital structure)

Equity has a strong relationship with financial performance. Return on equity is considered as an important accounting indicator of risk, entity performance and corporate success. It is used to forecast potential growth in future share prices, because changes in ROE are often reflected in share price behavior**.** This research also disproved the pecking order theory as it was discovered that Insurance firm use debt mostly to fund their operations and not equity.

Past literature have shown that the companies' convertible bond announcement negatively affects their stock prices. However, the result of our study shows the opposite. Convertible corporate bonds can significantly bring higher corporate income growth rate, and convertible corporate bonds have a forward effect. Convertible bonds make up for the previous shortage of refinancing and promotes the high-quality development of the capital market, which is a reasonable direction verified by practice. Thus, investors are recommended to choose companies with high financial constraints if they are considering investing in those that are going to issue convertible bonds, which is beneficial with regards to planning investment strategies.

*Recommendations.*

Based on this research all the variables were found relevant and reliable for studying Capital structure. Thus they can be considered a good measure for studying the relationship between capital structure and financial performance as shown by the normality and multicollinearity tests.

**Debt.**

Debt has been found to have a positive significant relationship on financial performance as such Management should opt for debt as they get more work done and are able to divest which boost financial performance. Short term debt is beneficial for companies as it is less costly while Long-term debt has been found to assist companies in acquisition of assets.

**Equity.**

It is essential for insurance firms to keep a level of equity to finance their operations as shown by this study whereby 10% the aggregate financial needs were meet through the sale of shares. Also as analyzed and evidenced ROE is an important measurement ratio for financial performance and has been seen to grow when equity is increased in a company.

**Convertible bonds.**

Convertible corporate bonds have been found to bring significantly higher corporate income growth rate as they have a forward effect. In line with trade off theory, management should analyze the needs and financial position of the company and proceed cautiously to use of hybrid securities as they have a long-term positive impact and increase profitability especially when insurance firms are seeking for long term investments.

*Areas for further research.*

Future scholars ought to focus their time scope to a period beyond 10 years. This will enable future scholars to analyze the pattern of using and in mapct of capital structure   and see if it changes over time.

There is also need to analyze further factors that may influence capital structure of Insurance firms in the NSE apart from capital structure. There is also need to look at other generic factors that affect financial performance of  Insuarance firms. This will further facilitate the testing or disproof of already withstanding theories related to Capital structure.

More research also needs to be done on other sectors such as textile, food processing, motor, rental industries. This is because each sector has its own industry norms and patterns which may alter and present different findings to the insurance industry.

There is also need to look keenly and intently into Hybrid securities and their influence to  the financial performance of insurance firms in the NSE as well as a need to compare the same with other sectors such as motor industry.

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