

**FINANCIAL LEVERAGE AND PERFORMANCE OF INSURANCE FIRMS  
LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA**

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**A RESEARCH PROJECT SUBMITTED IN THE SCHOOL OF BUSINESS,  
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**MAY, 2023**

**DECLARATION**

This research project is my original work and has not been presented for a degree in any other University or for any other award.

Signature.....

Date .....

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I confirm that this research project was carried out by the candidate under my supervision.

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## **DEDICATION**

I dedicate this project to my daughter who was my every day motivation when pursuing this course.

## **ACKNOWLEDGEMENT**

My sincere appreciation goes to my supervisor Dr. Francis K. Gitagia for facilitating me undertake my research project. The guidance and responses I received made the completion of this project successful. I am also highly indebted to my husband for the financial support and the encouragement he provided throughout my education advancement. I also wish to acknowledge my parents for always believing in me. It is through their faith in me that I have managed to complete this research project.

## **ABBREVIATIONS ND ACRONYMS**

<b>GDP</b>	Gross Domestic Product
<b>CMA</b>	Capital Market Authority
<b>IRA</b>	Insurance Regulatory Authority
<b>KRA</b>	Kenya Revenue Authority
<b>NSE</b>	Nairobi Securities Exchange
<b>ROA</b>	Return on Assets
<b>ROE</b>	Return on Equity
<b>UA</b>	United States
<b>USD</b>	United States Dollar

## TABLE OF CONTENTS

<b>DECLARATION .....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iv</b>
<b>ABBREVIATIONS ND ACRONYMS.....</b>	<b>v</b>
<b>TABLE OF CONTENTS .....</b>	<b>vi</b>
<b>LIST OF TABLES.....</b>	<b>ix</b>
<b>LIST OF FIGURES.....</b>	<b>x</b>
<b>OPERATIONAL DEFINITION OF TERMS .....</b>	<b>xi</b>
<b>ABSTRACT.....</b>	<b>xii</b>
<b>CHAPTER ONE:INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.1.1 Financial Performance.....	2
1.1.2 Financial Leverage.....	4
1.1.3 Listed Insurance Firms in Kenya.....	6
1.2 Statement of the Problem.....	7
1.3 Research Objectives.....	8
1.3.1 General Objective.....	8
1.3.2 Specific Objectives.....	8
1.4 Research Hypotheses.....	9
1.5 Significance of the Study.....	9
1.6 Scope of the Study.....	10
1.7 Limitations and Delimitations of the Study.....	11
1.8 Organization of the Study.....	11
<b>CHAPTER TWO:LITERATURE REVIEW.....</b>	<b>12</b>
2.1 Introduction.....	12
2.2 Theoretical Review.....	12
2.2.1 Pecking Order Theory.....	12
2.2.2 Trade off theory.....	13
2.2.3 Agency theory.....	15

2.2.4 Theory of the Firm .....	16
2.3 Empirical Review .....	16
2.3.1 Short Term Debts and Financial Performance.....	16
2.3.2 Long Term Debts and Financial Performance .....	18
2.3.3 Debt-Equity Financing and Financial Performance .....	21
2.3.4 Interest Coverage and Financial Performance .....	23
2.4 Summary of Literature Reviewed and Research Gaps .....	25
2.5 Conceptual Framework .....	28
<b>CHAPTER THREE:RESEARCH METHODOLOGY .....</b>	<b>29</b>
3.1 Introduction .....	29
3.2 Research Design .....	29
3.3 Target Population.....	29
3.4 Sample Size and Sampling Technique .....	29
3.5 Data Collection Instrument .....	30
3.6 Data Collection Procedure.....	30
3.7 Data Analysis and Presentation .....	30
3.7.1 Model Specification .....	30
3.8 Diagnostic Tests.....	31
3.8.1 Multicollinearity Test.....	31
3.8.2 Heteroskedasticity test.....	32
3.8.3 Normality Test .....	32
3.9 Ethical Considerations .....	32
<b>CHAPTER FOUR:RESEARCH FINDINGS AND DISCUSSION .....</b>	<b>34</b>
4.1 Introduction .....	34
4.2 Descriptive Statistics.....	34
4.3 Trend Analysis.....	35
4.3.1 Financial Performance.....	35
4.3.2 Short Term Debts .....	36
4.3.3 Trend Analysis on Long Term Debts.....	37
4.3.4 Trend Analysis on Debt-Equity Financing .....	37

4.3.5 Trend Analysis on Interest Coverage .....	38
4.4 Diagnostic Tests.....	39
4.4.1 Multicollinearity Test.....	39
4.4.2 Heteroskedasticity test.....	40
4.4.3 Normality Test .....	40
4.5 Correlation Matrix .....	42
4.7 Regression Results and Hypothesis Testing.....	46
<b>CHAPTER FIVE:SUMMARY, CONCLUSION AND RECOMMENDATIONS....</b>	<b>52</b>
5.1 Introduction .....	52
5.2 Summary of the Findings .....	52
5.2.1 Short Term Debts and Financial Performance.....	52
5.2.2 Long Term Debts and Financial Performance.....	52
5.2.3 Debt-Equity Financing and Financial Performance.....	53
5.2.4 Interest Coverage and Financial Performance.....	53
5.3 Conclusion.....	53
5.4 Recommendations of the Study.....	54
5.5 Contribution of the Study to Theory and Knowledge.....	55
5.6 Suggestions for Further Research.....	56
<b>REFERENCES .....</b>	<b>57</b>
<b>APPENDICES .....</b>	<b>63</b>
Appendix I: Listed Insurance Firms in Kenya .....	63
Appendix II: Data Collection Schedule .....	64
Appendix III: Secondary Data Collected and Analyzed.....	65



## LIST OF TABLES

Table 1.1: Trend in Financial; Performance of Listed Insurance firms.....	4
Figure 4.1: Trend Analyses of Financial Performance.....	35
Figure 4.2: Trend Analysis of Long Term Debts .....	36
Figure 4.3: Trend Analysis on Long Term Debts .....	37
Figure 4.4: Trend Analysis on Debt Equity Financing.....	38
Figure 4.5: Trend Analysis on Interest Coverage .....	38
Figure 4.6: Histogram.....	41
Figure 4.7: Normal PP Plot.....	42

## LIST OF FIGURES

Figure 1.2: Trend of Financial Leverage of the Listed Insurance Firms (2016-2020).....	6
Figure 4.1: Trend Analyses of Financial Performance .....	35
Figure 4.2: Trend Analysis of Long Term Debts .....	36
Figure 4.3: Trend Analysis on Long Term Debts .....	37
Figure 4.4: Trend Analysis on Debt Equity Financing.....	38
Figure 4.5: Trend Analysis on Interest Coverage .....	38
Figure 4.6: Histogram.....	41
Figure 4.7: Normal PP Plot.....	42

## OPERATIONAL DEFINITION OF TERMS

<b>Debt-equity financing</b>	It describes the capital structure of the firm represented by total liabilities against total equity of the listed insurance firms in Kenya
<b>Financial leverage</b>	Is the degree to which an insurance company is geared represented in this study by short term debts, long term debts, debt to equity as well as the interest coverage of the listed insurance firm in Kenya
<b>Financial performance</b>	Is the ability of the firm to generate profits represented in this study it is indicated by net income as a proportion of total assets of the listed insurance firms in Kenya
<b>Interest Coverage</b>	Is the benefit enjoyed by the firm for having debts represented in this study by the ratio of earnings before interest and taxations against interest expense paid by the listed insurance firms in Kenya
<b>Long term debt</b>	Is a financial obligation that mature above a year is represented in this study by long-term debts as a proportion of total assets of the listed insurance firms in Kenya
<b>Short term debt</b>	Is a financial obligation with maturity of less than a year and represented in this study by include current liabilities and total liabilities of the listed insurance firms in Kenya

## ABSTRACT

Financial leverage has long been linked with financial performance of insurance industry; however empirical evidence remains unclear on the nature of such relationship. The connection between financial leverage and financial performance has remained unclear. Insurance industry plays a critical role in development of economy in mitigation of risk; however, financial performance has remained a challenge among listed insurance firms in Kenya. For instance, financial performance of the listed insurance firms has been fluctuating across the 5 year period. It is against this background that the research project intended to establish the relationship between financial leverage and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. More the specific objectives of the study was; to establish relationship between short term debts, and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya, to establish relationship between long term debts and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya, to establish relationship between debt-equity financing and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya and to establish relationship between interest coverage and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. The study was guided by pecking order theory, trade off theory and the agency theory. The research used descriptive survey design. The target population was the 6 insurance companies listed on the Nairobi Securities exchange. A census of all the 6 listed insurance companies was used. Secondary data from financial reports as published in the Nairobi Securities Exchange handbook and Kenya National Bureau of Statistics for the period between 2017 and 2021. Various diagnostic tests were carried out including; Normality, Multicollinearity, Heteroskedasticity. Panel regressions analysis and Pearson's product moment correlation analysis were used for inferential analysis while means and standard deviations were utilized for purposes of descriptive analysis. The findings were that while short term debt, long term and debt equity financing all negative and significant regression beta coefficients, the one for interest coverage was positive but insignificant. The study concluded that financial leverage is a significant predictor of financial performance. The study recommended that finance managers of the listed insurance firms in Kenya should establish optimal debt-equity mix that maximizes the financial performance of their firms. The marketing managers as part of the senior management team should develop and implement relevant revenue generating strategies to improve the earnings of the listed insurance firms in order for them to to meet their debt obligations without hurting the financial position. The investors and shareholders through the board of directors of the listed insurance firms in Kenya should be more active and demand for prudent utilization of the short and long term debts by the management. The policy makers at Insurance Regulatory Authority should develop policies and regulations that can guide debt management among insurance firms.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The insurance sector plays an important role by underwriting risks for clients to stop potential losses. Risks are unforeseen circumstance whose occurrence cannot be predicted with certainty. If not well mitigated through insurance, occurrence of the risk can results into significant losses. Thus, the insurance sector comes in to curb the possible losses that people would incur when risks have occurred. According to statistics from the Insurance Information Institute III (2021), the insurance sector contributed 3.1% to the global gross domestic product (GDP). This demonstrates the significant role of the insurance and the need to receive adequate attention by policy makers. Financial performance of the insurance sector has received significant attention among scholars. In the year 2019, a number of countries around the world recorded an improvement in ROE as follows: Russia (52.3%), Argentina (49.3%) and Turkiye (42.4%) (OECD, 2020). In Africa, the value of insurance sector as of 2020 was estimated at US\$ 70 Billion (OECD, 2020).

Financial leverage allows the firm to borrow funds that can be utilized to fund viable investment projects that would generate returns to shareholders (Bui, Nguyen & Ngo, 2021). Within the context of Pakistan, Akhtar, Yusheng, Haris, Ain and Javaid (2021) argues that short and long term debts are key aspects of financial leverage in the firm. In Sri Lanka, Ravindran and Kengatharan (2021) shared that the amount of debts and equities in the capital structure of an entity will inform financial leverage. In Nigeria, Abubakar (2021) said that financial leverage allows the firm to utilize short term and long term debts to optimize the wealth of shareholders. In support of these views, Okumu and Jagongo (2020) reiterated that short term and long term debts as well as equities are important aspects of financial leverage in an organization. Tangut (2017) viewed financial leverage in terms of debts and equities that contribute towards financial

performance of the firm. Kithandi and Katua (2019) covered interest coverage besides debts and equity as financial leverage in the firm that contribute towards financial performance.

### **1.1.1 Financial Performance**

Financial performance is the ability of the entity to leverage the daily operations in generation of new resources within a given time frame (Abu-Abbas, Alhmoud & Algazo, 2019). Financial performance involves the step taken by the firm to enhance the wealth of the shareholders and profitability of the firm (Schutte, 2018). The relevant measures of financial performance including ratios that are developed based on information extract from statement of financial position and the income statements (Bunyaminu, Yakubu & Bashiru, 2021). In general, financial performance is used to gauge the overall financial health of an entity within some specified time horizon. Some of the common measures of financial performance in an entity include ROA, ROE and ROI (Iqbal & Usman, 2018).

Financial performance is particularly important to an insurance firm. Insurance firms should be in good financial position in order for them to effectively underwrite risks (Rickards, 2021). Some risks involve huge amount of money and their occurrence will need these insurance firms to compensate policy holders. Thus, any insurance struggling with its financial performance may not be able to effectively compensate the policy holders in the event that an underwritten risk has occurred. Investors will only invest their funds in those insurance firms that have sound financial performance ((Bunyaminu *et al.*, 2021).

Various measures have been adopted to measure the financial performance of insurance sector organization for instance return on assets (ROA), return on equity (ROE) as well as growth in insurance premiums. As a financial ratio, ROA is determined by the amount of net income against the total assets in the firm (Rahman, Saima & Jahan, 2020). It is reflected in the ability of the entity to leverage the assets in place to create value for shareholders. On the other hand, ROE is determined by the value of the net income

against the total equities of the shareholders in the firm (Afolabi, Olabisi, Kajola & Asaolu, 2019). Thus, ROE is used to gauge how well an entity generates income by leveraging the equity portion of the balance sheet. According to Kamau, Olweny and Muturi (2021), the shareholders of the firm are interested in ROA and ROE since they inform their decision on injection of funds to run the operations. Higher values of ROA and ROE are desirable since they imply that assets and equities are being efficiently utilized to generate revenue in the firm.

Financial performance has remained a challenge among insurance firms around the world as evidenced by diminishing growth in insurance premiums that impacts on profitability thus adversely affecting ROA and ROE. For instance, in 2020, a decline in growth of premiums by 2.2% was witnessed for the life insurance firms (OECD, 2021). According to Swiss-Re (2021), there was a drop in world insurance premiums by 1.3% standing at \$6.3 trillion after adjusting for inflationary pressure. In Western Europe, the total insurance premiums dropped by 1% starting from 2015 to 2016. There has also been a drop in the contribution of Canada and United States towards the overall growth in world insurance premiums from the year 2011 all through to 2016 (McKinsey & Company, 2017).

Returns generated by the insurance firm either on assets (ROA) or equity (ROE) are important indicators used to gauge financial performance of an entity. For the year 2018, Chubb Limited headquartered in Swiss recorded the highest ROA in the world of 2.51% (OECD, 2020). Return on investment (ROI) as a measure of financial performance has remained relatively low, with Australia recording the strongest figure of 11.8% while Israel posting 9.3% during the year 2019 (OECD, 2020). In Thailand, Rickards (2021) shared that the insurance industry has been reporting losses attributed to business interruptions.

In East Africa, the insurance sector in Uganda has been experiencing inconsistent growth in ROE equivalent to 25%, 25.3%, 10% and 15% for the year 2015, 2016, 2017 and 2018 respectively (IRA-Uganda, 2019). In Kenya, the insurance sector experienced a drop in

profit of 35.4% from Kshs. 5.85 billion to Kshs. 78 billion in the year 2016 and 2017 respectively. This led to a drop in ROA and ROE from 2.69% and 14.36% to 1.36% and 8.29% respectively (IRA, 2019). Therefore, the Kenyan insurance sector is not doing well as compared not only to the other parts of the world. Figure 1 below gives the trend in profitability of the insurance industry in Kenya:

**Table 1.1: Trend in Financial; Performance of Listed Insurance firms**

<b>Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
ROA	.042	.03	.039	.119	(.094)
ROE	.124	.09	.023	.033	(.013)

**Source: IRA (2021)**

From Table 1.1, financial performance of the listed insurance firms has been fluctuating across the 5 year period with the highest ROE of 12.4% being recorded in 2016 and the least negative ROE of 1.3% recorded in 2020. The same case applies to ROA, the highest value of 11.9% being recorded in 2019 with negative ROA of 9.4% being reported in 2020.

### **1.1.2 Financial Leverage**

Financial leverage is the indebtedness of the firm through borrowing of loans or debentures (Ilyukhin, 2015). Firms are motivated to borrow (embrace financial leverage) so as to earn and generate greater returns on investments as compared to the costs incurred in borrowing. Kenn-Ndubuisi and Nweke (2019) regard financial leverage as the degree which an entity is able to leverage debt and equity in financing the assets. Thus, an increase in debt may result into an increase in financial leverage too. Ravindran and Kengatharan (2021) said that an increase in financial leverage result into an increase in agency costs, due to existence of diverging interests between the shareholders and the debt holders in the firm. According to Malshe and Agarwal (2015), the risk of financial distress and possibility of bankruptcy may increase with a rise in the level of debts utilized in the capital structure. However, Karimi and Kheiri (2017) note that the use of debts provides interest tax shield resulting into maximization of owners' wealth.



Olaniyan, Oyinloye and Agbadua (2020) indicated that debts, equity and interest coverage are important aspects of financial leverage in the firm. According to Mulyono, Djumahir and Ratnawati (2018), short term debts have a maturity less than a year and the firm needs to repay them within a four month period. At the same time, the interest paid on short term loans are relatively smaller. On the other hand, long term debts require some form of agreement between debt issuers and the firm it is linked with greater costs of financial distress and agency costs. The interest rate payable on long term debts are relatively high and this may increase the risk of financial bankruptcy of the firm. Equities are important components of financial leverage of the firm represented by equity ratio. Sporta, Patrick Ngumi and Nanjala (2017) note that equity financing is the least option in the firm and its use arises whenever the firm has reached an optimal debt capacity with no other available alternative for financing other than equities.

Abubakar (2021) argues that financial leverage can be represented by short term, long term and debt equity mix. Okumu and Jagongo (2020) also argued that short and long term debts as well as debt and equity ratio are important considerations of financial leverage decisions in the firm. Gunarathna (2016) said that financial leverage amplifies financial risk in the firm. Akhtar, Yusheng, Haris, Ain and Javaid (2021) argues that both short term, long term and total debts are key indicators of financial leverage that contribute towards financial performance of the firm. According to Tangut (2017), debt ratio and the debt equity ratio are two important measures of financial leverage in the firm. Kithandi and Katua (2019) orate the financial leverage can best be measured through debt ratio, debt equity ratio and interest coverage ratio. Ivo and Anyanwaokoro (2019) used debt ratio and debt against equity ratio as well as interest coverage to operationalize financial leverage. Dalci (2018) said that there is an inverted u-shaped relationship between financial leverage and performance such that the positive effect may be due to interest tax shield while the negative effect could be due to financial risks including bankruptcy costs, financial distress or agency issues.

Table 1.2 gives summary of the trend in financial leverage of the insurance industry in Kenya for the period 2018-2020. From Table 1.2, the year 2016 was represented by

solvency ratio of .233, implying that debts accounted for 23.3% of the capital structures of the listed insurance firms. In the same 2016 from Table 1.1, the highest value of ROE of 12.4% was recorded by the listed insurance firms in Kenya. This could be an indication that financial leverage is related with financial performance.

**Table 1.1: Trend of Financial Leverage of the Listed Insurance Firms (2016-2020)**

<b>Year</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Solvency ratio	.233	.238	.223	.195	.190

**Source: IRA (2021)**

### **1.1.3 Listed Insurance Firms in Kenya**

The origin of insurance activities can be traced in London (Staib, De-Souza Rodrigues-Cabral, Kubli & Dornigg, 2020). From here, insurance activities grew and expanded to other parts of the world (Canh, Wongchoti & Thanh, 2020). In Kenya, the insurance industry has been operating in the last 60 years with the first insurance firm being operated by insurers from Britain. Currently, the insurance firms are regulated by the Insurance Regulatory Authority (IRA). There has been low penetration of insurance firms in Kenya when compared to other countries in Africa. According to Central Bank of Kenya (CBK) financial stability report (2020), the insurance penetration was at 2.4% which is lower than the 7.2% global average. Currently, there is a high level of competition from Uganda and Tanzania faced by insurance industry players in Kenya. This situation is worsened by the fact that majority of the insurance firms in Kenya have been posting financial losses. The entire insurance sector posted underwriting loss of USD 0.02 billion and USD 0.01 billion in 2016 and 2017 respectively. The average industry ROA has been on a downward trajectory standing at 10.4% in 2017 from 14.2% in 2016 (IRA, 2017).

As of December 2020, a total of 6 insurance firms had been listed at the Nairobi Securities Exchange (NSE) in Kenya (appendix i) (Cyttonn, 2020). These firms operate life, non-life, motor and medical categories of insurance businesses. According to Cyttonn report (2020), the weighted average ROA of the listed insurance firms stood at (9.4%)

and (1.3%) while the ROE stood at 11.9% and 3.3% for 2019 and 2020 respectively. The loss ratio reported by these listed insurance firms rose from 79.4% to 88.1% in 2019 and 2020 respectively (IRA, 2018). This was occasioned by a slow growth in premiums by 1.6% and 1.2% in 2019 and 2020 respectively (IRA, 2020). This trend raises a question of whether the listed insurance firms have financial leverage that can result into interest tax shield which enhances financial performance. Thus, this study examines the link between financial leverage and performance of these listed insurance firms in Kenya.

## **1.2 Statement of the Problem**

The insurance sector is very critical in any economy given its role of mitigation of risks. Good financial performance is critical for financial sustainability of such firms. However, financial performance has remained a challenge among listed insurance firms in Kenya. Financial performance of the listed insurance firms has been fluctuating across the 5 year period with the highest ROE of 12.4% being recorded in 2016 and the least negative ROE of 1.3% recorded in 2020 (IRA, 2021). Within the periods 2019 and 2020, negative ROA of (9.4%) and (1.3%) were recorded by these listed insurance firms in Kenya respectively while ROE dropped from 11.9% to 3.3% within the same period respectively (Cytonn, 2020). These figures of ROA are so low compared to the average industry figure of 14.2% and 10.4% in 2016 and 2017 respectively (IRA, 2017). The pace of growth of the premiums of these listed insurance firms been very low, at 1.6% and 1.2% in 2019 compared to 2020 respectively (Cytonn, 2020). This trend in financial performance of these listed insurance firms has attracted significant attention among policy makers.

The existing studies include Ksa, Ahmad and Al-Homaidi (2021) who focused on India to link financial leverage and financial performance among listed entities. It was shown that financial leverage significantly enhances firm performance. Focusing on fertilizer and food sector in Pakistan, Ali (2020) examined leverage and how it impacts on financial performance. The study showed that the degree of operating leverage has no significant link with financial performance. Using evidence from selected NSE listed firms, Gathara, Kilika and Maingi (2019) explored the leverage financial performance

link where significant and direct relationship was noted. Among the microfinance entities in Kenya, Okumu and Jagongo (2020) analyzed financial leverage and profitability where a positive relationship was recorded. The reviewed studies create contextual gaps and their findings cannot be generalized for insurance firms in Kenya (Ksa et al., 2021) and Pakistan (Ali, 2020) and not in Kenya.

Various studies such as Gathara et al., (2019) covered leverage in general and not specifically financial leverage hence creating conceptual gaps. Several studies focus on different firms like microfinance institutions thus creating contextual gaps. Financial leverage has long been linked to financial performance. However, the numerous studies on the effect of financial leverage on financial performance indicate contradictory findings. There are some studies (Ali, 2020) that find out leverage to have an insignificant effect on financial performance while others (Gathara et al., 2019) document significant relationship. Thus, in order to fill these gaps, the present study sought to establish the relationship between financial leverage and performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.

### **1.3 Research Objectives**

The study was guided by general and specific objectives as under:

#### **1.3.1 General Objective**

The general objective of the study was to establish the effect of financial leverage on financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya

#### **1.3.2 Specific Objectives**

The study was guided by the following objectives:

- i. To determine the relationship between short term debt and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.

- ii. To establish the relationship between long term debt and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.
- iii. To analyze the relationship between debt-equity financing and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya
- iv. To investigate the relationship between interest coverage and financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.

#### **1.4 Research Hypotheses**

The study tested the following null hypotheses

- H<sub>01</sub>:** Short term debt has no significant relationship on financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya
- H<sub>02</sub>:** Long term debt has no significant relationship on financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.
- H<sub>03</sub>:** Debt-equity financing has no significant relationship on financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya
- H<sub>04</sub>:** Interest coverage has no significant relationship on financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.

#### **1.5 Significance of the Study**

The finance managers of the respective listed insurance firms in Kenya would understand the need to balance debts and equities in their capital structure so as to optimize the wealth of the shareholders. The overall management together with the board of the listed firms would be able to develop relevant and informed policies with regard to sources of financing and how to balance debts and equities in funding the investment opportunities. The study will be beneficial to investors and shareholders of the listed insurance firms in understanding the best way for the management to use financial leverage to increase their wealth. The management team of Insurance Regulatory Authority (IRA) would leverage

these findings to improve on regulations governing the listed insurance firms that would enhance financial performance. The finance managers of the listed insurance firms would be able to understand the need for leverage in the capital structure so as to provide an interest tax shield that would maximize the wealth of the shareholders.

The policy makers at the Capital Market Authority (CMA) would leverage the findings of this study to come up with relevant regulations regarding debts and equities that would spur financial performance of the listed insurance firms. The policy makers among the insurance firms will rely on this study to come up with relevant policies that improve on leverage of these firms. The policy makers at IRA would be guided by the findings of this study as they formulated regulations that seek to promote stability and soundness of the insurance sector in Kenya. The policy makers in the Kenya Revenue Authority (KRA) would formulate sound policies about taxation in light of debts of the listed insurance firms so as to provide an interest tax shield. All these will contribute to overall stability of the insurance industry in Kenya.

The study would contribute to the available literature with regard to financial leverage and performance. The study would extent the existing theories on financial leverage. The findings from the study would agree or disagree with the pecking order theory, trade off theory and the agency theory that have been used to underpin this study. Future scholars would be able to review literature of this study. The study would recommend the areas that require further research and thus expanding on the already existing and available literature and knowledge.

## **1.6 Scope of the Study**

The study was conducted on financial leverage and performance. More specifically, the study will focus on short term debt, long term debt, debt-equity financing and interest coverage as they relate with financial performance. The study covered 6 listed insurance firms in Kenya (appendix I). The listed insurance firms will be selected for this study since their information on debts and equities is publicly available. The study considered a

5 year period (2017-2021), this time frame was chosen since it was the most current and data for it was readily available. The period was also considered because of poor performance of the insurance industry over the same years.

### **1.7 Limitations and Delimitations of the Study**

This study relied on data from auxiliary sources that were analyzed to generate the relevant findings. During some years, data was not available on some of the firms for several reasons including mergers and acquisitions. This generated unbalanced data sets that created issues during analysis. To overcome this limitation, diverse sources of information were brought on board during data collection including relevant industry reports, publications by IRA, CMA, NSE and even the financial statements of the respective insurance firms. Incomplete data may also be obtained from existing research that may be relevant to the current study.

The study was limited to a sample of 6 listed insurance firms in Kenya. This limited the number of data points required for inferential data analysis. To delimit this concern, the study adopted panel data methodology covering a period of 5 years (2017-2021) for the 6 firms. This generated adequate data points to support quantitative analysis of the findings.

### **1.8 Organization of the Study**

This study was structured into five chapters. Chapter one details the background information, statement of problem, objectives, hypotheses, significance, scope and limitations. Chapter two reviews the theories and past empirical studies besides presentation of the conceptual framework. The relevant methodologies in terms of study design, population, sample size, data collection and the associated procedures as well as the analysis and the ethical considerations are indicated in chapter three. The findings of analysis and discussions are covered in chapter four. In chapter five, a summary of the analyzed findings, conclusion and recommendations as well as areas that need further research are pointed out.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviewed literature starting with the theories and past empirical studies. Besides, there reviewed literature is summarized to indicate gaps and the conceptual framework is also indicated.

#### **2.2 Theoretical Review**

The study was guided by the pecking order theory, trade off theory and the agency theory.

##### **2.2.1 Pecking Order Theory**

This theory was developed by Myers and Majluf (1984) and it argues that corporations prefer to fund new investment internally first with retained earnings, then with debt, and last by issuing new equity as a last resort. As a result, financial leverage is linked to poor financial performance. Because there are two types of equity (internal and external), one at the top of the pecking order and one at the bottom, Pecking Order Theory indicates that there is no well-defined optimal financial leverage. According to the pecking order theory, corporations prioritize their sources of funding (from internal finance to equity) based on the cost of financing, with equity being used only as a last resort. As a result, internal funds are used first, followed by debt, and then, when it is no longer feasible to issue more debt, equity is issued (Stewart & Nicholas, 1984). The pecking order theory does not start with an ideal capital structure, but rather with the empirical finding that firms prefer to use internal finance (such as retained earnings or excess liquid assets) over external credit (Stewart & Nicholas, 1984). Firms may or may not obtain external funding if internal funds are insufficient to finance investment opportunities, and if they



do, they will choose among the many external finance sources in order to minimize the additional costs of asymmetric knowledge.

Majluf and Myers (1984) suggest that the resulting finance hierarchy is as follows: internally generated funds come first, followed by low-risk debt financing and share financing, in that order. According to Majluf and Myers (1984), when managers issue equity instead of riskless financing, other potential investors in the market will always rationally discount the firm's stock price. Managers avoid equity whenever feasible to avoid this discount (Stewart & Nicholas, 1984). Managers will follow a pecking order, according to the Myers and Majluf model, employing internal money first, then risky debt, and lastly equity. Firms keep profits and build up financial slack in the absence of investment possibilities in order to avoid having to raise external money in the future (Stewart & Nicholas, 1984).

This theory strongly suggests that using leverage will be less expensive than using equity, which means that using leverage will improve financial performance and may not incur excessive costs, unlike other forms of financing. Furthermore, using cheaper sources of finance, such as retained earnings, is less likely to cause financial distress. On the other hand, while leverage will be easy to obtain, the repayment plan may put you in financial hardship. This theory strongly establishes that leverage is a financial distress element that has an impact on a company's financial performance. This theory was applicable in this study since it was used to explain how utilization of debts as a source of financing contributes towards financial leverage and the rippled effect of this on financial performance of the firm.

### **2.2.2 Trade off theory**

Modigliani and Miller (1963) stated that the tax code favors debt financing over equity financing since interest expenditure may be deducted from gross income for corporate tax purposes, but payments to equity investors cannot be deducted (e.g., dividends are not tax deductible on the personal account). In this paradigm, the firm value is maximized by

using as much debt as possible to finance business investment decisions since an additional dollar of debt generates the marginal benefit of a tax deduction without any offsetting cost. Other financial economists, such as Kraus and Litzenberger (1973), proposed that the costs of financial distress may explain the observed restrictions on loan usage and the predictions of the tax-adjusted Modigliani-Miller financial policy analysis. According to the trade-off theory, leverage has potential benefits for the company due to tax savings linked with debt use. Other research, on the other hand, have found that when leverage rises, so does the volatility of share prices in relation to private information; the firm's final fate is determined by issues that are not known to the broader public (Nyamboga, Omwario & Muriuki, 2014).

Firms typically pick how much debt or equity finance to utilize based on the benefits and drawbacks of both debt and equity, according to trade-off theory. Myers (1984) argues that trade-off theory is primarily concerned with canceling debt costs against debt advantages, but Kraus and Litzenberger (1973) argue that this reflects the trade-off between debt tax benefits and the predicted costs of bankruptcy in a business. Companies will use debt, but they will be wary of the risks associated with bankruptcy. This is the point at which the tax savings from any extra debt equals the cost of an increase in the likelihood of financial distress (Sheikh & Wang, 2011). Shareholders gain from more debt than stock as long as a company uses debt wisely (Baker & Martin 2011). Furthermore, while the theory predicts a positive relationship between the tax rate and leverage due to deductible financial expenses from income tax, it does not go into detail on how the tax rate affects leverage (Karadeniz, Kandir, Balcilar & al, 2009). In their investigation on debt dynamics, Hennessy and Whited (2005) discover contradictory findings with the theory, denying the existence of a target leverage ratio. They propose that firms can be heavily leveraged or not, and that this changes negatively with a weighted average of external money. This theory relates to this study because listed firms that carefully select equity levels and debts for their financing are better positioned to produce bigger profits than those that are less concerned with equity and debt levels. Firms with higher debt levels may be severely disadvantaged. Most businesses strive for an ideal equity-to-debt capital structure, which is thought to provide tax benefits. Thus,

the theory anchored the variable of debt-equity financing and how the firm can optimize this combination to enhance the value of shareholders. .

### **2.2.3 Agency theory**

Jensen and Meckling (1976) were the first to develop agency theory. It has to do with how managers and shareholders make decisions within a company. According to the theory, managers who have a poor level of organizational monitoring and decision-making discipline are more likely to make investments that are not beneficial for the company (Jensen & Meckling 1976). Their rationale is based on the principal agent theory, which states that agents are utility maximizers who act in their own best interests rather than those of the principals. In this situation, principals can gain control by motivating agents; nevertheless, this incurs expenses, known as agency costs. This relationship was similar to that of a company's manager and stockholders. According to Jensen and Meckling (1976), increasing debt levels reduces agency costs because debt holders gain more power and influence, out-competing the agent's possible egotistical acts. As a result, larger debt levels, up to a certain point, may boost a company's performance (Jensen & Meckling 1976). Indebtedness enables shareholders and managers to work toward the same goal of maximizing financial performance and, as a result, shareholder wealth (Luigi & Sorin, 2009).

Debt has the capacity to motivate managers to perform because a company with high debt levels is more likely to go bankrupt, putting their jobs and income at jeopardy. This is viewed as a sufficient threat to compel them to change their inefficient management techniques and, in turn, produce maximum cash flow to repay the loan (Grigore & Stefan-Duicu, 2013). For shareholders, debt has a leveraging impact on financial returns due to the interest tax benefit combined with the non-dilution of the share capital (Zhang & Li, 2008). In fact, however, managers continue to misappropriate cash even when they have a debt obligation, negating the theory's claim. While the general effect of leverage and agency costs was found to be significantly negative empirically utilizing 323 United Kingdom public companies, research demonstrated that the link no longer holds at very

high levels of leverage (Zhang & Li, 2008). The agency theory is also understudied, with empirical verification challenges owing to the difficulty of assessing agency costs (Grigore & Stefan-Duicu, 2013). This theory anchored the variable of short and long term debt and how an increase in proportion of each of these would increase the risk of the insurance listed firms.

#### **2.2.4 Theory of the Firm**

The proponent of this theory was Coase (1937) and it answers the question of why firms are developed and why they exist. According to this theory, firms exist so as to maximize the level of profits they generate. The theory argues that firms can maximize their profits by creation of gaps between costs and revenues. The theory state the business are guided and shaped by the motive of maximization of their profits. Generating profit helps the firm to pay off the both short term and long term obligations as it seeks to remain viable. In essence, generation and maximization of adequate profits can help the firm to maximize the wealth of the shareholders who may stand to get higher gains from the profits generated by the firm (Holmstrom, & Tirole, 1989).

However, a lot of debate has been leveled against this theory and it has undergone expansion to bring in issues of whether the objective of the firm is maximization of short term or long term profits. Critics of the theory suggest that theory fails to differentiate between long term objectives instance sustainability against the short term aims as profit maximization (Alvarez, Zander, Barney & Afuah, 2020). This theory is relevant to the study as it anchored the dependent variable financial performance. In essence, maximization of the profits can contribute towards financial performance of the firm.

### **2.3 Empirical Review**

#### **2.3.1 Short Term Debts and Financial Performance**

Mugisha, Omagwa and Kilika (2020) researched on how short-term debt affects financial performance of SMEs in the region of Buganda, Uganda. The study's focus was to

investigate how short-term debt affects the financial performance of SMEs in Uganda. The study adopted a descriptive cross-sectional research design in collecting and analyzing the data. SMEs were selected through use of stratified random sampling technique while each of the respondents were selected from the 453 SMEs through use of purposive sampling technique. Data collection was done through use of a questionnaire. Data analysis was done through use of descriptive statistics and simple linear regression analysis. The study results revealed that short-term debt negatively and significantly affected the financial performance of SMEs as measured by return on assets. The gap created by this study is that it was conducted in Uganda and among SMEs and not in Kenya.

Shikumo, Oluoch and Wepukhulu (2020) assessed on how short term debt affects the financial growth of non-financial firms listed at NSE, Kenya. The study's main aim was to find out how short-term debt affects the financial growth of non-financial firms listed at NSE. The study adopted the use of an explanatory research design. The target population included 45 non-financial firms listed at the NSE, Kenya for a period of ten years from 2008 to 2017. Both descriptive statistics analysis and panel data analysis were conducted by the study and the findings revealed that short term debt had a positive and significant effect on the financial growth measured using both growth in earnings per share and growth in market capitalization. This study focused on financial growth as the dependent variable and not financial performance. It also focused on non-financial firms unlike the present study that focused on financial firms specifically insurance firms.

Wanjala and Namusonge (2016) conducted a study to find out how short term debt planning affects the financial efficiency using a case study of the automobile firms in the town of Kitale. The main objective of the study was to assess how appropriate inventory affects financial efficiency of automobile firms in the town of Kitale. Data collection was done through use of a questionnaires on a drop and pick later basis. Data analysis was done through use of regression analysis. The study results revealed that appropriate inventory significantly influenced financial efficiency implying that increase in variables

will result into an increase in financial efficiency. This study focused on automobile firms while the present study focused on insurance firms.

Mboi, Muturi and Wanjare (2018) researched on how short-term debt to total assets ratio affects the financial performance of Kenyan medium-sized and large enterprises. The study's aim was to find out how short-term debt to total assets ratio affects the financial performance of Kenyan medium-sized and large enterprises. The study used secondary data consisting of audited financial statements from 60 big firms listed on the NSE and 30 medium-sized enterprises that are among the top-100 medium-sized enterprises (2011 to 2016). Data analysis was done through use of descriptive statistics and inferential statistics. The results of the study revealed that short term debt significantly and negatively affected ROE and ROA. This study was limited to a period from 2011-2016, the present study covered the period 2016-2021 which is more current.

Makori (2017) did a study to find out how short-term financing decisions affect the financial performance of non-financial firms listed at the NSE, Kenya. The study was aimed at investigating the effect of short-term financing decisions on the financial performance of non-financial firms listed at the NSE, Kenya. The study adopted an explanatory research design. Panel data extracted from the annual reports and financial statements of non-financial firms obtained from the NSE handbooks, Capital Markets Authority library, and company websites for the period 2001-2014 was used by the study. The results of the study revealed that short term debts and financial performance are linked with each other. However, the focus of this study was on non-financial listed firms, while the current study focused on insurance firms that are financial firms.

### **2.3.2 Long Term Debts and Financial Performance**

Bannerman and Fu (2019) researched on how long term debt affects the growth of a firm in China. The study's objective was to examine the effects of long term debt on firm's growth in China. The study employed the use of a descriptive research design. The target population included various firm sizes. Data collection was done through use of a

questionnaire. Data analysis was one through use of Statistical package of social studies version 22. The results of the study revealed that long term debt had a negative effect on the growth of the firm. The gap created by this study is that it was conducted in China and not in Kenya.

Muzeya (2017) assessed on how debt finance affects the financial performance of a firm using a case study of Telone private limited. The study's main aim was to find out how debt finance affects the financial performance of a firm using a case study of Telone private limited. The study adopted the use of a mixed approach in answering the research questions which were both quantitative and qualitative. Primary data was gathered from questionnaires while secondary data was gathered from financial statements. The target population included 30 respondents from which a sample of 20 was incorporated. Data analysis was done through use of Excel and SPSS 20. The results of the study revealed that debt financing had a significant effect on ROA of the organization which was a measure of financial performance. The study also indicated that debt capital and diversification explained 68 % of the changes in financial performance, implying that the company was overly reliant on debt capital. The gap created by this study is that a case study approach was adopted where only a single firm was involved. The current study focused on 6 listed insurance firms in Kenya.

Nazir, Azam and Khalid (2021) conducted a study to find out how debt financing affects the performance of a firm using a case study of the Pakistan Stock Exchange. The study's purpose was to assess how the debt level of the listed firms relates with the performance of the Pakistan Stock Exchange (PSX) during a five-year period. The study adopted the use of pooled ordinary least squares regression and fixed and random- effects models in analyzing a cross-sectional sample of 30 companies operating in the automobile, cement and sugar sectors of Pakistan. The findings of the study revealed that both short- and long-term debt negatively and significantly affected the performance of a firm in terms of profitability indicating that agency problems could lead to a high-debt strategy, which would result in poor performance. Non-financial sector companies, on the other hand, benefit from both increased sales and increased firm size. However, this study was

conducted in the context of Pakistan, while the focus of the current study was among listed insurance firms in Kenya.

Ng'ang'a (2017) did a study to find out how debt financing affects the financial performance of Private Secondary Schools in the County of Kajiado. The main aim of the study was to assess how debt financing affects the financial performance of private secondary schools in the County of Kajiado. The study employed the use of a descriptive research design. The target population included 61 private secondary schools in Kajiado County. Secondary data was collected through use of a data collection form. Data analysis was done through use of multiple linear regression models to ascertain the association linking dependent variables and independent variables. The findings of the study revealed that there was a positive and insignificant effect between debt financing and financial performance of private secondary schools in the County of Kajiado. The gap created by this study is that it was conducted among private secondary schools in Kajiado County while the focus of the current study was on listed insurance firms in Kenya.

Kirimi, Simiyu and Murithi (2017) assessed on how debt finance affects financial performance of savings and credit cooperative societies in Maara Sub-county, Tharaka Nithi County, Kenya. The main aim of the study was to assess how debt finance affects the financial performance of SACCOs. The study adopted the use of a causal research design. The target population included 10 SACCOs. The study used secondary data from the SACCOs' financial statements for the last eight years. Data analysis was done through use of descriptive and inferential statistics with help of Statistical Package for Social Sciences (SPSS). The results of the study revealed that there was a strong positive relationship of 0.984 between debt and ROE while a negative relationship existed between interest rate, loan tenure and ROE while a positive relationship was revealed between debt equity ratio and interest coverage ratio on ROE respectively. The gap created by this study is that it focused on debt in general, the current study focused on long term debt as a variable on its own.



### **2.3.3 Debt-Equity Financing and Financial Performance**

Musila (2015) did a study to find out how equity financing relates with financial performance of the energy and petroleum companies listed at the Nairobi securities exchange. The main aim of the study was to assess how equity financing affects financial performance of firms in the energy and petroleum sector listed at the Nairobi Securities Exchange. The study employed the use of a descriptive research design. The target population included the five firms in the energy and petroleum sector listed at Nairobi Securities Exchange from the year 2005 to 2014 period. Secondary data was collected from published audited annual reports of accounts which were obtained from NSE and CMA. Data analysis was done through use of a regression model. The study results revealed that there was an insignificant but positive relationship between equity financing and financial performance. The gap created by this study is that it was conducted among energy and petroleum companies listed unlike the current study that focused on listed insurance firms in Kenya.

Muturi and Njeru (2019) researched on how equity finance affects financial performance of small and medium enterprises in Kenya. The main objective of the study was to find the effect of equity finance on financial performance of SMEs in Kenyan. The study adopted the use of a descriptive research design. The target population included 291,449 licensed SMEs in the selected counties by operational wholesale and retail trade where 384 respondents were selected through simple random techniques. Data collection was done through use of a questionnaire. Data analysis was done through use of regression and correlation analysis. The findings of the study revealed that equity finance significantly related with financial performance of Kenyan SMEs. The gap created by this study is that it was done focusing on equity financing, while the current study looked at debt-equity mix as a component of financial leverage.

Achieng, Muturi and Wanjare (2018) investigated on how equity financing options affects the financial performance of non-financial firms listed at the Nairobi Securities Exchange, Kenya. The study was aimed at examining how equity financing options

namely common stock (CS), retained earnings (REN) and total equity (TED) affects the financial performance of listed firms in Kenya. The study adopted the use of panel econometric techniques namely pooled ordinary least squares (OLS), fixed effects (FE) and random effects (RE). The target population included 40 non-financial firms listed at the Nairobi Securities Exchange between 2009 and 2015. The results of the study revealed that CS ratio had a significant and negative effect on ROA while REN ratio significantly and positively affected ROA. However, this study focused on non-financial firms listed unlike the current study that concentrated on financial firms covering the listed insurance firms in Kenya.

Nguyen and Rugman (2015) did a study on the effect of internal equity financing affects the performance of multinational subsidiaries in emerging economies. The main aim of the study was to assess how equity financing affects the multinational subsidiary which retains and reinvests its own earnings. The study used original survey data from British multinational subsidiaries in six emerging countries in the South East Asia region. The study findings revealed that internal equity financing is used as an FSA towards improving the performance of subsidiaries. The second result is that internal funding accounts for approximately 90% of financing sources in British subsidiaries (including capital investment by parent companies). However, this study was conducted focusing on multinational subsidiaries in emerging economies and not the listed insurance firms.

Saad et al., (2014) conducted a study to find out how equity and debt financing affects the performance of SME in Malaysia. The main objective of the study was to examine the effects of equity and debt financing on SMEs performance in Malaysia. The research is based on a postal survey with cluster sampling. It includes 177 Malaysian SME samples from the manufacturing and agriculture industries. Two research hypotheses are then produced and analyzed. The findings of the study revealed that equity financing significantly and positively related with performance of a business while debt financing was found to be insignificant. According to the study, equity finance is a type of business capital financing that does not require repayment and does not charge interest on

cash advanced, but instead gives investors a stake in the company. The gap created by this study is that it was conducted in Malaysia among SMEs and not in Kenya.

### **2.3.4 Interest Coverage and Financial Performance**

Ji (2019) investigated on how interest ratio coverage ratio affects the value relevance of reported earnings in South Korea. The study was aimed at analyzing whether the value relevance of earnings to stock price differs according to various interest coverage ratios. The Ohlson model, which has been utilized for the evaluation of stock value relevance in many earlier studies, provides the basis for this study's hypothesis test. The CICR is used as beneficial information by investors in the capital market as a consequence of the empirical analysis. In the capital market, the CICR is utilized as a useful indication of profit sustainability. The findings of the study revealed that interest coverage ratio had a positive effect on the value relevance of reported earnings. The gap created by this study is that it was conducted in South Korea while the current study was done in Kenya among the insurance listed firms.

Malikov, Coakley and Manson (2019) conducted an inquiry into interest coverage covenants. The study was based on a total of 559 listed firms in United Kingdom. The period considered by the study was from 2005 all through to 2014. The study showed that the use of classification shifting of revenues increases whenever the interest coverage covenants are as closer to their limits. The gap created by this study is that it was conducted in UK and not in Kenya.

Al (2020) conducted a study to find out how leverage affects the financial performance of Pakistan food and fertilizer sector. The main objective of the study was to assess how the leverage affects the financial performance of the firms of food and fertilizer sector registered under PSE. The study's sample covered 20 publicly traded firms from 2008 to 2015. Because the data for this study period was not available, some of the companies were omitted. Descriptive statistics, correlation analysis, unit root test, and random effect regression model were among the statistical tests employed in this study. The firm's

financial performance was assessed using metrics such as ROA (return on assets), EVA (economic value added), and Tobin's. The findings of this study show that while financial leverage and combined leverage have no significant influence on financial performance as evaluated by return on assets, the degree of operating leverage has a negative substantial impact on return on assets. The gap created by this study is that it was done in Pakistan and not in Kenya and it focused on leverage as a whole the focus of the present study was on interest coverage.

Kithandi and Katua (2019) did a study on the effect of financial leverage on financial performance of the energy and petroleum sector companies listed in the Nairobi Securities Exchange. The study was aimed at assessing how financial leverage affects the financial performance of the Energy and Petroleum Sector Companies Listed in the Nairobi Securities Exchange. The study adopted the use of an explanatory research design. The study targeted all the 5 companies from the energy and petroleum sector listed in the NSE. Secondary data was collected from the published financial statements of these companies. Data analysis was done through use of multiple regression equation and descriptive statistics. The findings of the study revealed that financial leverage and financial performance of petroleum and energy sector firms listed in the NSE negatively related to each other. However, this study was conducted among energy and petroleum sector companies listed and not the insurance listed firms thus the gap.

Ngure (2014) researched on how interest rates affect the financial performance of Kenyan commercial banks. The main objective of the study was to find out how interest rates affect the financial performance of Kenyan commercial banks. The study adopted the use of a descriptive research design. Secondary data was obtained from Central Bank of Kenya for the period of five years from 2009 to 2013. The results of the study revealed that interest rates significantly and positively affected the financial performance of Kenyan commercial banks at 95% confidence level. This study was done among Kenyan commercial banks covering the period 2009 to 2013 while the focus of the current study was on listed insurance firms in Kenya within the period 2016-2020.

Ngumo (2012) assessed on how interest rates affects the financial performance of firms offering mortgages in Kenya. The study's main objective was to find out how interest rates affect the financial performance of firms offering mortgages in Kenya. The study employed the use of a survey research design. Data analysis was done through use of multiple linear regression analysis. The study results revealed that interest rates positively related with financial performance of the firms. The gap created by this study is that it focused on interest rate while the current study focused on interest coverage as a variable.

#### **2.4 Summary of Literature Reviewed and Research Gaps**

All the above studies; Mugisha, Omagwa and Kilika (2020), Shikumo, Oluoch and Wepukhulu (2020), Wanjala and Namusonge (2016), Mboi, Muturi and Wanjare (2018), Makori (2017), Bannerman and Fu (2019), Muzeya (2017), Nazir, Azam and Khalid (2021), Ng'ang'a (2017), Kirimi, Simiyu and Murithi (2017), Musila (2015), Muturi and Njeru (2019), Achieng, Muturi and Wanjare (2018), Nguyen and Rugman (2015), Saad et al., (2014), Ngure (2014), Ngumo (2012), Ji (2019), Al (2020), Kithandi and Katua (2019) were however based on different contextual, conceptual and demographic backgrounds with different objectives and study findings; none of them specifically looked at the effect of financial leverage on performance of insurance firms listed at the Nairobi Securities Exchange, Kenya hence creating the gap that the current study sought to fill. The research gaps summary of the reviewed studies is presented in table 2.1.

**Table 2.1: Summary of Literature Review and Research Gaps**

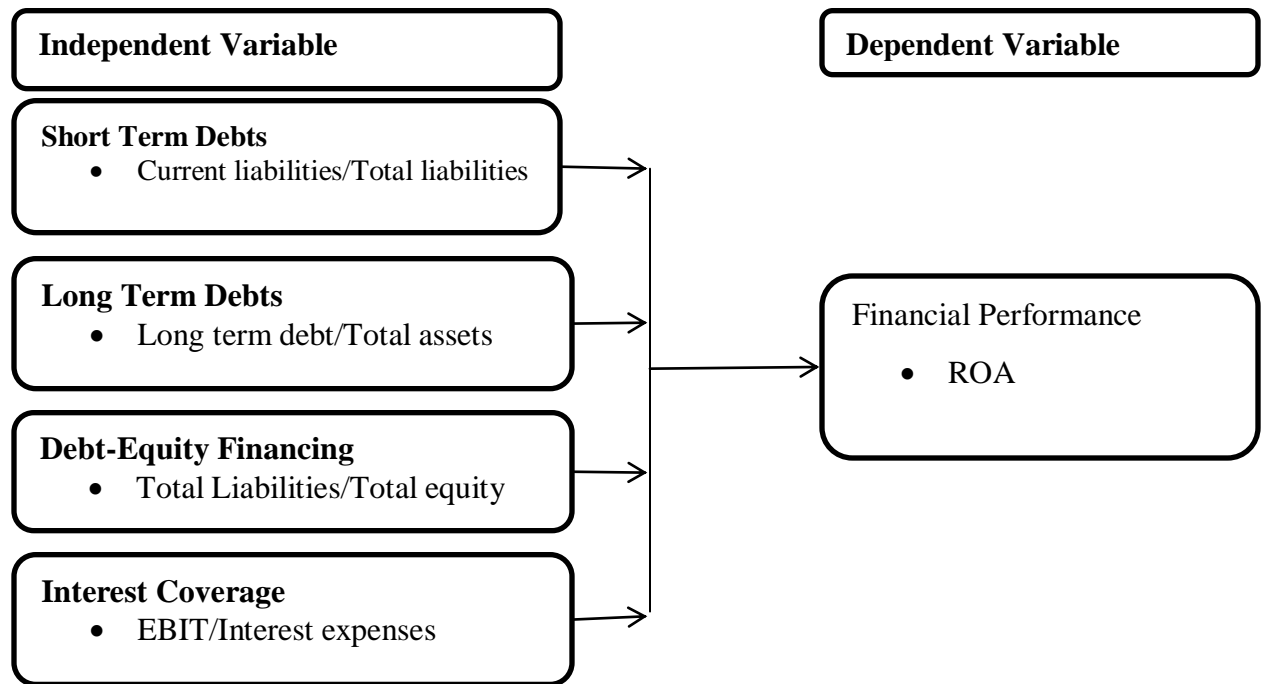
<b>Author (s) and Context</b>	<b>Objectives</b>	<b>Key findings</b>	<b>Research gaps</b>	<b>How the current study filled the gaps</b>
Mugisha, Omagwa and Kilika (2020)	How short-term debt affects financial performance of SMEs in the region of Buganda, Uganda	Short-term debt negatively and significantly affected the financial performance of SMEs as measured by return on assets	The study was done among SMEs in Uganda which have different regulation from listed firms	The current study was done among listed insurance firms in Kenya
Wanjala and Namusonge (2016)	How short term debt planning affects the financial efficiency using a case study of the Automobile Firms in the town of Kitale	Appropriate inventory significantly influenced financial efficiency implying that increase in variables will result into an increase in financial efficiency	The study was done among automobile firms focusing on financial efficiency as the dependent variable	The current study was done among the listed insurance firms in Kenya with financial performance as the dependent variable
Bannerman and Fu (2019)	How long term debt affects the growth of a firm in China	Long term debt had a negative effect on the growth of the firm	The study created a contextual gap as it was done in China	The present study was done in Kenya
Nazir, Azam and Khalid (2021)	How debt financing affects the performance of a firm using a case study of the Pakistan Stock Exchange	both short- and long-term debt negatively and significantly affected the performance of a firm in terms of profitability	The study created a contextual gap as it was done in Pakistan	The present study will be done in Kenya
Ng'ang'a (2017)	How debt financing affects the financial performance of Private Secondary Schools in the County of Kajiado	There was a positive and insignificant effect between debt financing and financial performance of private secondary schools in the County of Kajiado	The study was done among private secondary schools that operate under different regulations as insurance firms	The present study was conducted among listed insurance firms in Kenya

Saad et al., (2014)	How equity and debt financing affects the performance of SME in Malaysia	Equity financing significantly and positively related with performance of a business while debt financing was found to be insignificant	The study was done in Malaysia hence creating a contextual gap	The present study was done in Kenya
Ji (2019)	How interest ratio coverage ratio affects the value relevance of reported earnings in South Korea	Interest coverage ratio had a positive effect on the value relevance of reported earnings	The study was done in South Korea hence creating a contextual gap	The present study was done in Kenya
Kithandi and Katua (2019)	Effect of financial leverage on financial performance of the Energy and Petroleum Sector Companies Listed in the Nairobi Securities Exchange	Financial leverage and financial performance of petroleum and energy sector firms listed in the NSE negatively related to each other	The study covered financial leverage as a whole and it focused on energy and petroleum listed firms in Kenya	The present study covered short term debt, long term debt, debt-equity mix and interest coverage as proxies of financial leverage and it will be done among listed insurance firms in Kenya

**Source: Various Literature Reviewed (2022)**

## 2.5 Conceptual Framework

A conceptual framework is a diagrammatic representation of the study variables. It lists the study's various variables, including the independent variable (IV) and the dependent variable (DV). It also identifies the various parameters of the numerous variables that the study wishes to be measured (Kothari, 2004). The independent variables of financial leverage include short term debts, long term debts, debt equity financing and interest coverage. The dependent variable on the other hand is performance. Thus, the study seeks to determine the interaction between short term debts, long term debts, debt equity financing and interest coverage as the independent variables and performance as the dependent variable.



**Figure 2.1: Conceptual Framework**

**Source: Researcher 2022**



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter details the design to be adopted, the targeted respondents and means of gathering data. Concerns about gathering and analysis of the data are also raised as well as the ethical issues.

#### **3.2 Research Design**

Research design is a structure that guides the study in terms of data gathering and analysis (Yin, 2017). This study adopted descriptive survey design that involved quantitative methods. Creswell (2017) argue that survey design is useful in gathering information from given members of the society who are knowledgeable enough. Thus, survey design allowed the study to obtain relevant data from all the listed insurance firms in Kenya. The quantitative method allowed testing of hypotheses to draw relevant inferences.

#### **3.3 Target Population**

Target population is a collection of members having common observable attributes and which provide the basis for generalization of the findings (Yin, 2015). This study targeted 6 listed insurance firms in Kenya. A list of these firms is as provided on appendix I.

#### **3.4 Sample Size and Sampling Technique**

Sample size is the smallest proportion drawn from the target population for generalization of the findings. This study adopted census and thus all the 6 insurance were covered. The use of census was justified on account that the population of the study was relatively small to carry out sampling.

### **3.5 Data Collection Instrument**

The study gathered secondary data over a period of 5 years (2017-2021). This period was considered adequate to generate useful data for panel data analysis. The information was collected from NSE, IRA and the financial statements of the respective insurance firms. The study utilized annual data on current liabilities, total liabilities, long term debts, total assets, total equity, EBIT and net income.

### **3.6 Data Collection Procedure**

A data collection sheet was prepared to help in collection of secondary data. The specific contents of this sheet included the year, current liabilities, total liabilities, long term debts, total assets, total equity, interest expense, EBIT and net income. The sheet was appropriately saved in a relevant document. Information accessed from relevant reports was then pasted in respective entries in the excel sheet. The secondary data was collected from the websites of the respective firms, the relevant publications by NSE and reports from SASRA.

### **3.7 Data Analysis and Presentation**

Data analysis seeks to ensure that all the formulated objectives of the inquiry have been realized (Yin, 2017). The data from excel was cleaned and sorted once relevant ratios have been computed. Thereafter, it was exported to SPSS version 24 for analysis. A summary of descriptive statistics covering means and standard deviations were then generated. Correlation analysis was then performed to ascertain existence of the relationship.

#### **3.7.1 Model Specification**

Thereafter, regression analysis was conducted with the model as specified under:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \epsilon_{it}$$

Where Y is the financial performance

$\alpha$  refers to the Y intercept of the linear model

$X_{1it}$  refers to short term debts of firm i at time t

$X_{2it}$  refers to long term debts of firm i at time t

$X_{3it}$  refers to debt-equity financing of firm i at time t

$X_{4it}$  refers to interest coverage of firm i at time t

$\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are the coefficient of  $X_{1it}, X_{2it}, X_{3it},$  and  $X_{4it}$ , respectively while  $\epsilon$  is error term

### **3.8 Diagnostic Tests**

Diagnostic tests were conducted to validate the assumptions of regression. The specific diagnostic tests that were conducted include multicollinearity, Heteroskedasticity test, Normality Test as discussed in the subsequent section. Violation of any of these assumptions will require transformation and remodeling of the data.

#### **3.8.1 Multicollinearity Test**

The investigation of multicollinearity involves examining the connection between a study's independent variables. Multiple regression analysis suffers from multicollinearity in almost every aspect, especially if the correlation between the independent variables is large (Aczel, 2009). The Variance Inflation Factor (VIF) was used to test for multicollinearity. Sosa-Eacudero (2009) assert that there is no association if  $VIF = 1$ , moderate correlation is there if VIF is larger than 5 but less than 10, and high correlation is present if VIF is  $>10$ . VIF should be less than 3, according to the general rule of thumb

(Kutner, Nachtsheim & Neter, 2004). When correlations are really high, the researcher might think about eliminating one of the variables (Saunders, *et al.*, 2009; Kothari, 2010). The researcher might also disregard it, create a ratio from the highly connected variables, and only comprise the ratio in the regression rather than the individual variables (Brooks, 2008).

### **3.8.2 Heteroskedasticity test**

This is a situation when the error term in the model is deemed to be constant over the period of consideration (Cohen, West, and Aiken, 2013). The test was conducted through Breusch-Pagan (BP) test. The rule of thumb is that  $p < 0.05$ , heteroskedasticity is assumed.

### **3.8.3 Normality Test**

The normality test is an addition to the graphical normality evaluation (Elliott & Woodward, 2007). In this study, the Shapiro-Wilk test was employed to check for normality; the test is appropriate when the sample size is between 3 and 2,000. The Shapiro-Wilk test contrasts the sample's results with a set of scores that have a normal distribution, the same mean, and the same standard deviation. If the test is not significant ( $p > 0.05$ ), the sample's distribution is most likely normal because it does not significantly deviate from a normal distribution. Contrariwise, the distribution in question is regarded as non-normal if the test is significant ( $p < 0.05$ ) (Field, 2009). Dummy variables or another technique would be employed in this situation to successfully eliminate those observations (outliers).

## **3.9 Ethical Considerations**

Ethics are guiding principles that are general accepted and determine the action to be undertaken while shaping the desired behavior (Kothari, 2004). All the information reviewed in this study was appropriately acknowledged through citation and referencing.

This was a great step towards avoiding plagiarism. The information obtained from public reports was handled with confidence and this was only for academic purpose.

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSION

#### 4.1 Introduction

The chapter is set out to provide the findings of analysis of the data that was gathered from the field. This chapter details the findings of descriptive statistics, trend analysis, diagnostic tests as well as correlation and regression results.

#### 4.2 Descriptive Statistics

Descriptive statistics covering means and standard deviations as well as Skewness and Kurtosis were utilized to provide a description of the data of the study. Table 4.1 gives a summary of the findings.

**Table 4.1: Descriptive Statistics**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev</b>
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>
Short term debt	30	.00	.54	.2245	.215
Long-term debt	30	.00	.20	.0389	.047
Debt-equity financing	30	.01	17.34	4.4078	4.098
Interest coverage	30	-26.82	90.37	10.4524	27.599
Financial performance	30	-10.32	.24	-.3162	1.889

**Source: Research Data (2022)**

The finding in Table 4.1 gives the values of means on short term debt as 0.2245, long term had 0.0389, debt-equity financing had 4.4078 while interest coverage had 10.4524 and financial performance had -0.3162. This means that insurance firms in Kenya leverage their short term debts, long term debts, debt-equity financing and interest coverage to generate as forms of assets to generate 31.62% of their profits. This also implies that short term debts, long term debts, debt-equity financing and interest coverage all contribute 0.2245 units, 0.0389 units and 4.4078 units, 10.4524 units towards financial

leverage among insurance firms in Kenya respectively. Therefore, on average, interest coverage and debt-equity financing contribute more towards financial leverage of the insurance firms.

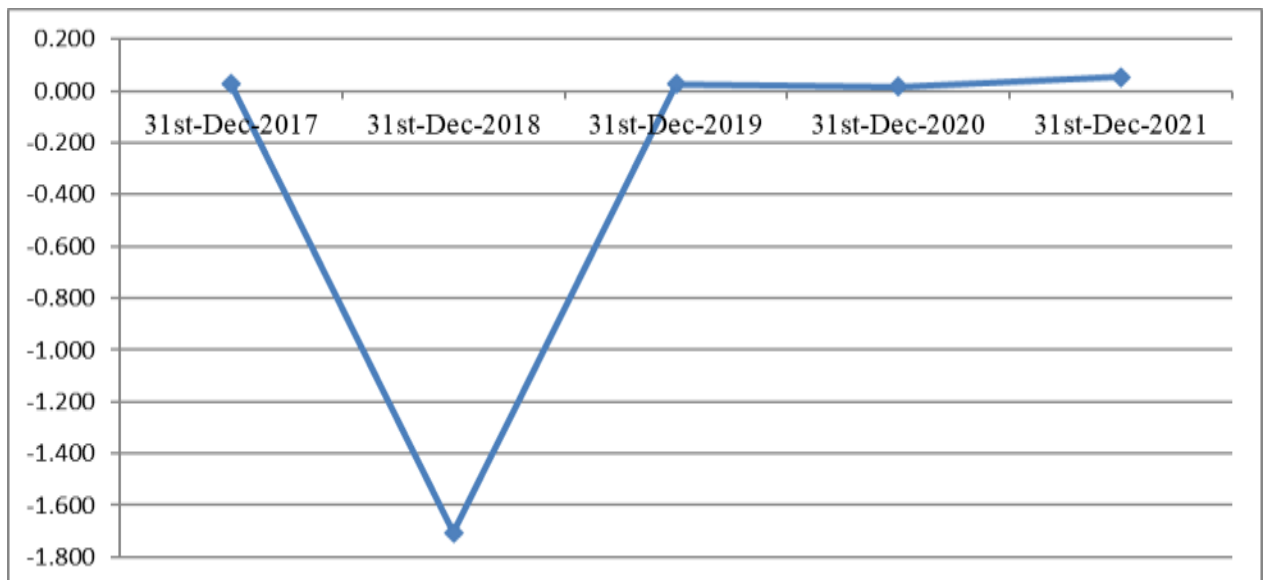
The maximum value of interest coverage was 90.37, this means that majority of the studied firms were not burdened with repayment of their debt obligations. On the other hand, the debt-equity financing average value was 17.34, this implies that for every dollar invested in projects of the studied firms, and 17.34% came from debts and 82.66% from equities.

### 4.3 Trend Analysis

Trend analysis was utilized to provide the description of the data of the study over time. This was realized through the use of graphs as presented in the subsequent sections.

#### 4.3.1 Financial Performance

Figure 4.1 provides the trend analysis of financial performance that was represented by ROA as a measure.



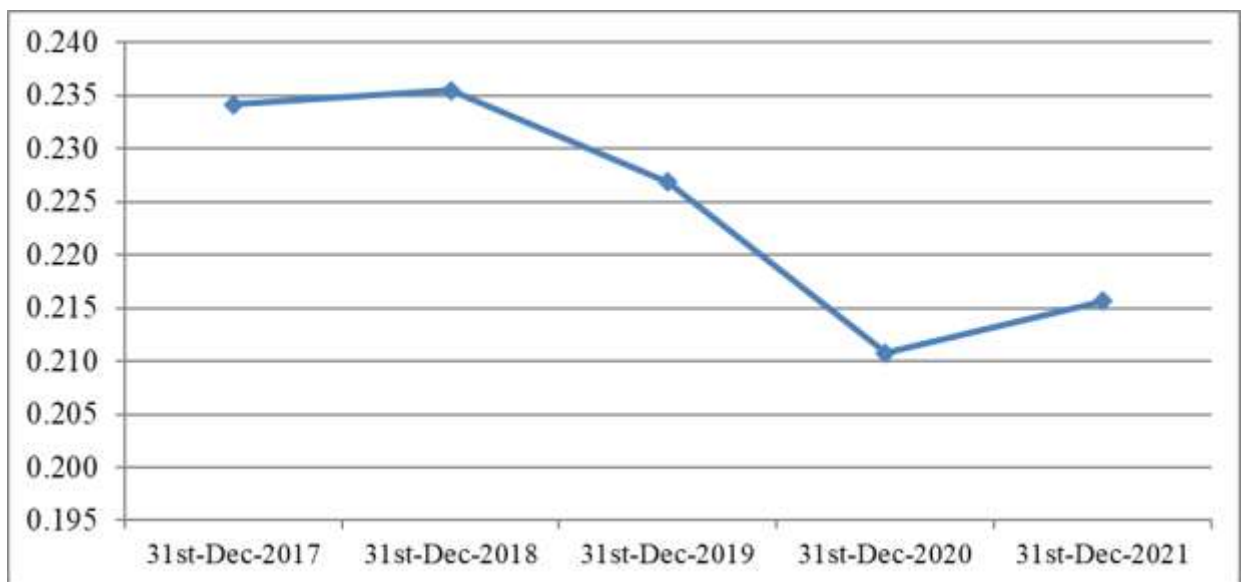
**Figure 4.1: Trend Analyses of Financial Performance**

Source: Research Data (2022)

Figure 4.1 shows that there was fluctuation in financial performance of the studied insurance especially from 2017 to around 2019. A significant drop in financial performance was registered in 2018 where ROA was negative. This negative ROA implies that majority of the insurance firms reported losses within that period. The significant negative ROA reported across the insurance firms studied can be attributed to the 2017 General Elections where most people perhaps reduced their saving attitudes due to uncertainty surrounding the electioneering period by that time. However, from 2019 onwards, there was stability in the insurance sector.

### 4.3.2 Short Term Debts

The trend analysis of short term debts as one of the independent objective variables of the study was explored and presented as shown in Figure 4.2.



**Figure 4.2: Trend Analysis of Long Term Debts**

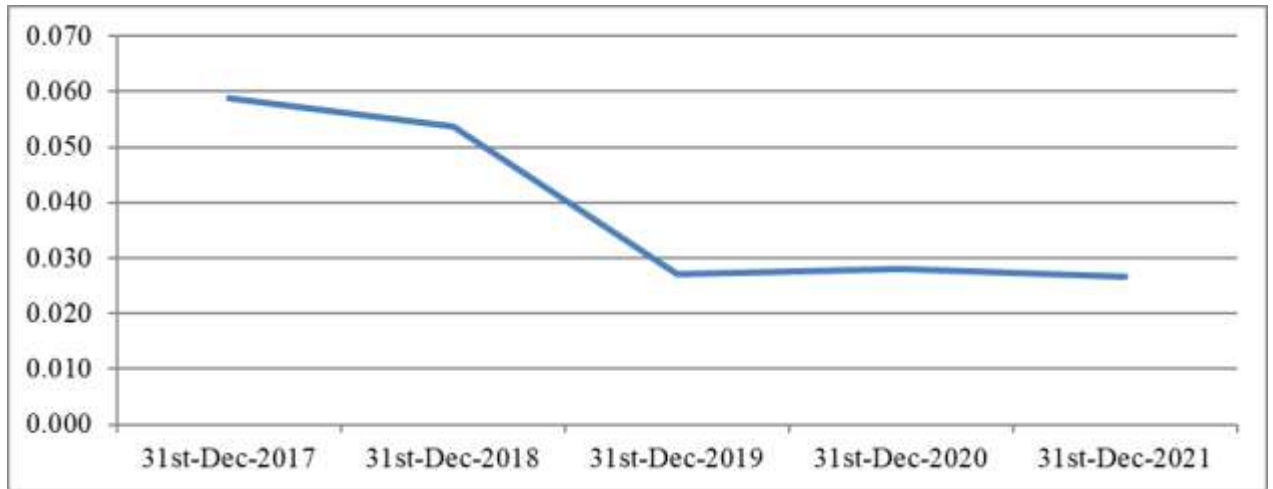
**Source: Research Data (2022)**

Figure 4.1 generally revealing a decreasing trend in short term debts among the insurance firms studied across the period of consideration. This is to imply that the insurance firms substituted short terms debts with other means of financing like equities.



### 4.3.3 Trend Analysis on Long Term Debts

The findings of trend analysis on long term debts were determined and presented as shown in Figure 4.3.



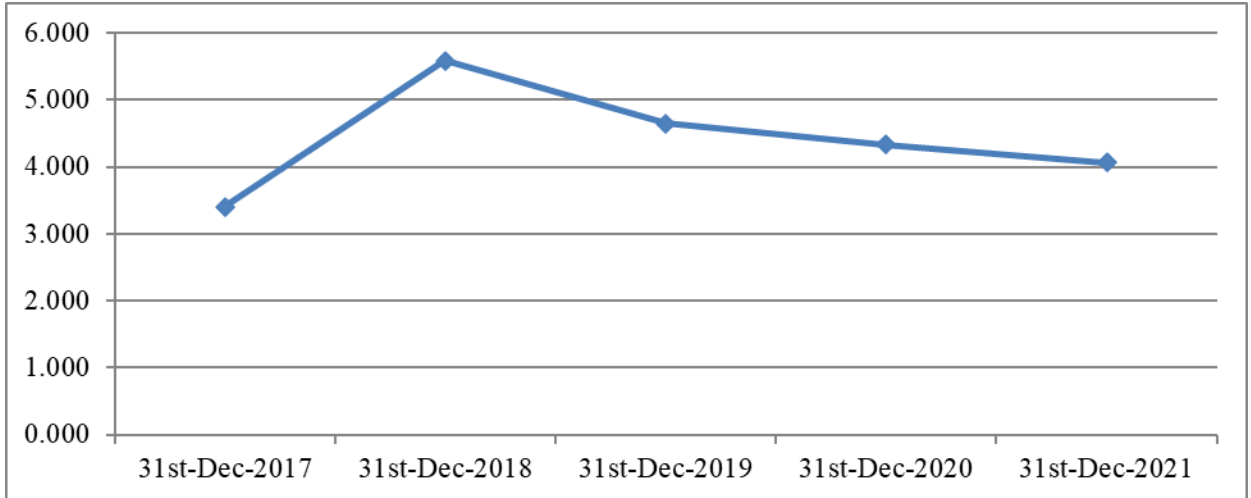
**Figure 4.3: Trend Analysis on Long Term Debts**

**Source: Research Data (2022)**

Figure 4.3 generally implies that there was a drop in long term debts as a means of financing among the insurance firms in Kenya. This probably implies that majority of the insurance firms' substituted debts with other means of financing like equities in their capital structures. Unlike the use of debts that increase the risk of financial distress of the firm, equities are less risky and the company can even fail to pay dividends to the shareholders.

### 4.3.4 Trend Analysis on Debt-Equity Financing

Figure 4.4 is a summary of the trend analysis on debt-equity financing as an objective variables of the study.

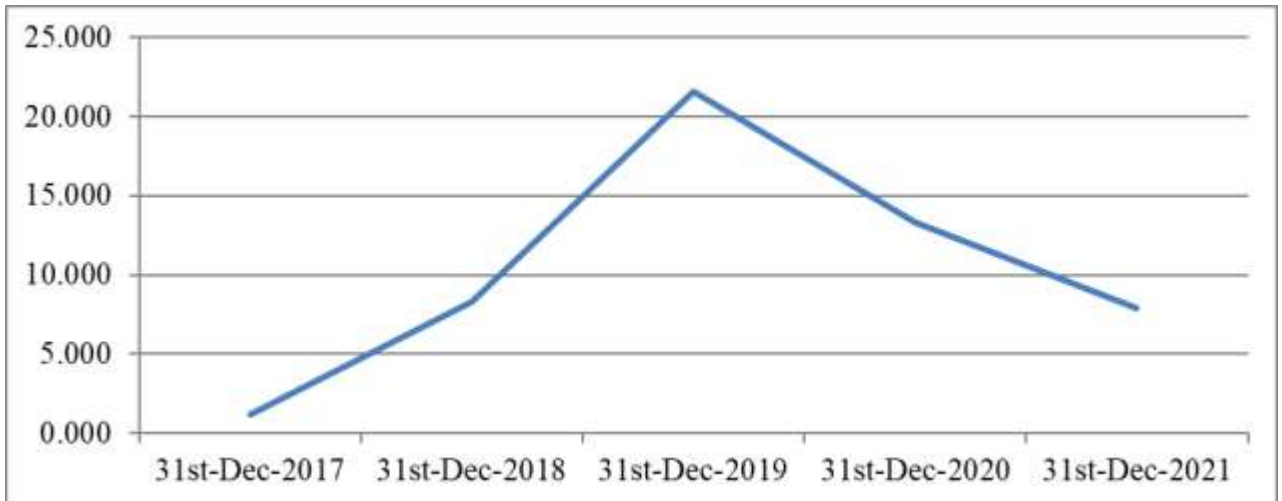


**Figure 4.4: Trend Analysis on Debt Equity Financing**  
**Source: Research Data (2022)**

Figure 4.4 portrays that there was a drop in the debt-equity financing among the studied insurance firms. This trend can be attributed to substitutions of debts with other means of financing in the capital structure.

#### 4.3.5 Trend Analysis on Interest Coverage

Figure 4.5 is a breakdown of the trend analysis interest coverage as the independent objective variables of the study.



**Figure 4.5: Trend Analysis on Interest Coverage**  
**Source: Research Data (2022)**

Figure 4.5 shows the interest coverage of the sharply increased from 2017 to 2019 before a sharp and consistent drop from 2019 to 2021. The drop in interest coverage from 2019 to 2021 can be attributed to the COVID-19 pandemic that had adverse effect on earnings and thus the ability of the insurance to pay their debt obligations. This could be the reason why some of the insurance firms decided to substitute debts with other less risky means of financing in their capital as earlier portrayed by the trend analysis of short and long term debts.

#### 4.4 Diagnostic Tests

Diagnostic tests were conducted to validate the assumptions of regression. The specific diagnostic tests that were conducted include multicollinearity, Heteroskedasticity test, Normality Test as discussed in the subsequent section. Violation of any of these assumptions required transformation and remodeling of the data.

##### 4.4.1 Multicollinearity Test

Multicollinearity exists in the data when at least one of the independent variables are highly related with each other. Variance of Inflation factor (VIF), where 1-10 VIF values signify absence of multicollinearity in the data. Table 4.2 provides a summary of the analyzed results.

**Table 4.2: Multicollinearity Test**

	Collinearity Statistics	
	Tolerance	VIF
Short term debt	.960	1.042
Long-term debt	.900	1.111
Debt-equity financing	.894	1.118
Interest coverage	.953	1.049
<b>Mean</b>	<b>.927</b>	<b>1.08</b>

**Source: Research Data (2022)**

Table 4.6 gives the mean VIF value as 1.08 and short term debts, long term debts, debt-equity financing as well as interest coverage had 1.042, 1.111, 1.118 and 1.049

respectively. Stevens (2002) observed that  $VIF > 10$  signify presence of the problem of multicollinearity in the data which need to be treated.

#### 4.4.2 Heteroskedasticity test

This is a situation when the error term in the model is deemed to be constant over the period of consideration (Cohen, West, and Aiken, 2013). The test will be conducted through Breusch-Pagan (BP) test. The rule of thumb is that  $p < 0.05$ , heteroskedasticity is assumed. Table 4.7 gives a summary of the results.

**Table 4.3: Heteroskedasticity test**

<b>Test: Va r(u)</b>	<b>Statistic</b>
Chibar2	357.31
p-value	.7435

**Source: Research Data (2022)**

From Table 4.3, the chi-square value is 357.31 with p-value of 0.7435 ( $p > 0.05$ ). This result is interpreted to imply absence of Heteroskedasticity in the data and thus suitability in running regression analysis. This is in line with Cohen, West and Aiken (2013) who argued that p-values above 0.05 in a BP test signify rejection of the null hypothesis.

#### 4.4.3 Normality Test

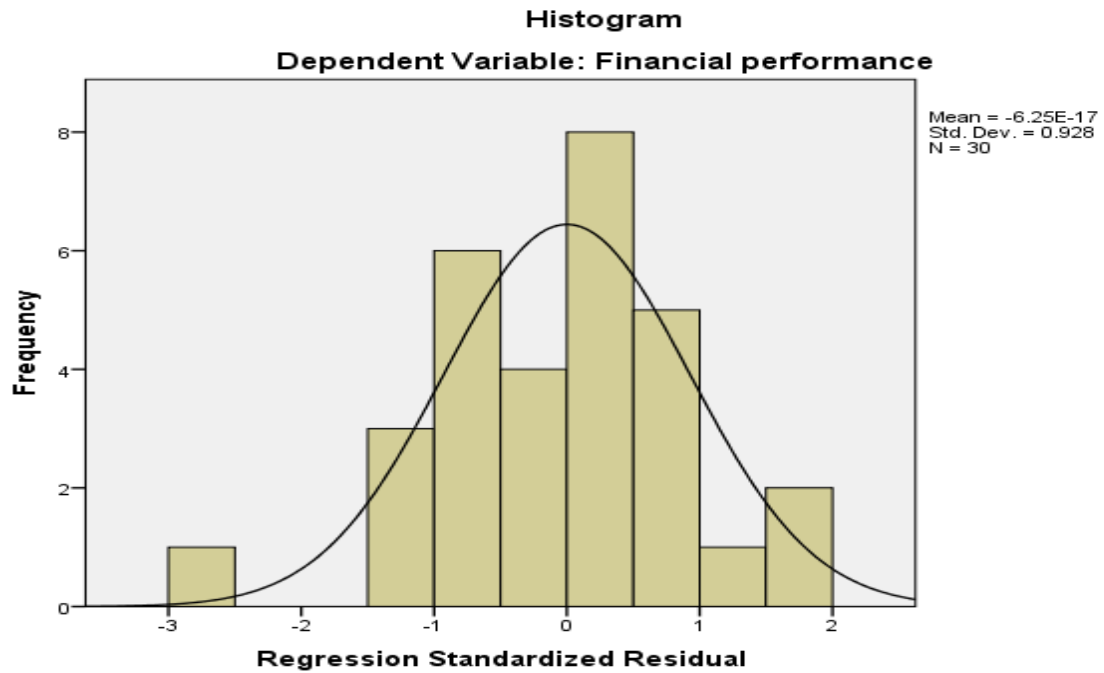
Normality exists when the data is normally distributed. Skewness and Kurtosis values will be computed in order to test for normality assumption. Values within range  $\pm 3$  signify presence of normality. Table 4.4 is a summary of the findings.

**Table 4.4: Normality Test**

	<b>Skewness</b>		<b>Kurtosis</b>	
	<b>Statistic</b>	<b>Std. Error</b>	<b>Statistic</b>	<b>Std. Error</b>
Short term debt	.364	.427	-1.684	.833
Long-term debt	2.163	.427	4.566	.833
Debt-equity financing	1.701	.427	2.869	.833
Interest coverage	2.105	.427	4.029	.833
Financial performance	-5.472	.427	29.961	.833

**Source: Research Data (2022)**

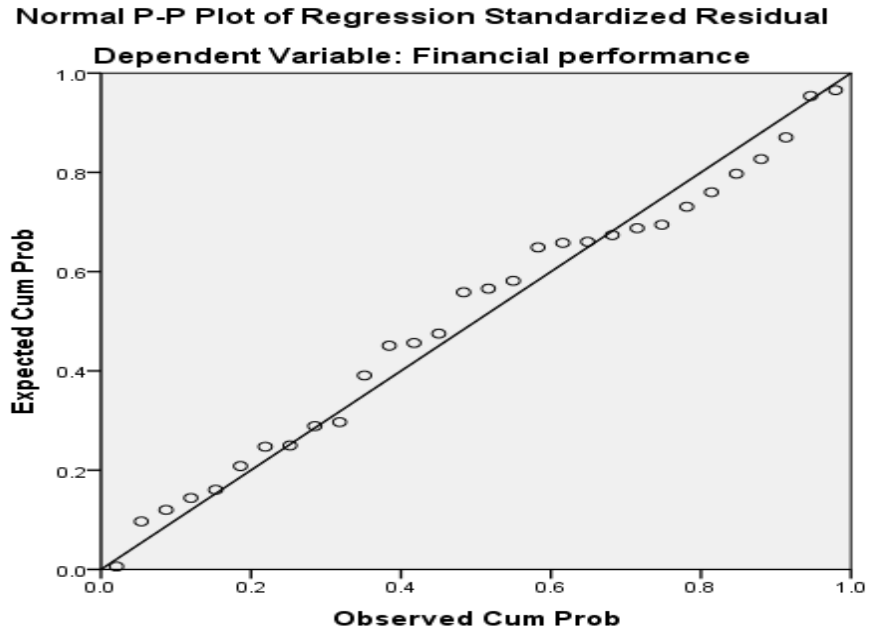
Table 4.4 indicates that short term debts, debt-equity financing were the only variables that met a threshold of Skewness and Kurtosis values within the range of + or -3. Normal PP plots and histograms were extracted to inspect normality assumption further and the findings are as shown in Figures 4.6 and 4.7 respectively.



**Figure 4.6: Histogram**

**Source: Research Data (2022)**

Figure 4.7 is a normal PP plot used to inspect normality assumption.



**Figure 4.7: Normal PP Plot**

**Source: Research Data (2022)**

The shape of Figure 4.6 indicates that the data of the study was normally distributed with a mean of 6.25 and standard deviation of 0.928. Similarly, Figure 4.7 displays a normal PP line where majority of the data are seeing being aligned on the same. This is an indication that the data used in the study was normally distributed and thus it was suitable for running regression analysis.

#### **4.5 Correlation Matrix**

The strength and nature of the relationship between financial leverage and financial performance was explored through correlation analysis. According to Cohen (1988), when running correlation analysis, key emphasis is placed on interpretation of the Correlation coefficients ( $r$ ) that range from 0 to 1 and they can be negative or positive. As shared by Wong and Hiew (2005), the value of  $r$  within the range of 0.1-0.29 mean weak, 0.3-0.49 implies moderate and above 0.5 mean strong relationship. Table 4.5 is a breakdown of the results.

**Table 4.5: Correlation Matrix**

		<b>Financial performan ce</b>	<b>Short term debt</b>	<b>Long- term debt</b>	<b>Debt- equity financin g</b>	<b>Interest coverage</b>
Financial performanc e	Pearson	1				
	Correlation					
	Sig. (2-tailed)					
	N	30				
Short term debt	Pearson	-.272	1			
	Correlation					
	Sig. (2-tailed)	.146				
	N	30	30			
Long-term debt	Pearson	-.629	.001	1		
	Correlation					
	Sig. (2-tailed)	.000	.997			
	N	30	30	30		
Debt- equity financing	Pearson	-.604	-.194	.254	1	
	Correlation					
	Sig. (2-tailed)	.000	.305	.175		
	N	30	30	30	30	
Interest coverage	Pearson	.146	.021	-.208	-.114	1
	Correlation					
	Sig. (2-tailed)	.441	.914	.271	.548	
	N	30	30	30	30	30

**Source: Research Data (2022)**

The results in Table 4.5 indicate that short term debts have weak and inverse relationship with financial performance ( $r=-0.272$ ). This means that an increase in short term may adversely affect the financial performance of the firm. This particularly applies when the firm is facing liquidity challenges such that it is unable to meet the increased short term debts on time. The finding agrees with Mugisha, Omagwa and Kilika (2020) who researched on how short-term debt affects financial performance of SMEs in the region of Buganda, Uganda. The study results revealed that short-term debt negatively and significantly affected the financial performance of SMEs as measured by return on assets. The result agrees with Mboi, Muturi and Wanjare (2018) researched on how short-term debt to total assets ratio affects the financial performance of Kenyan medium-sized and large enterprises. The results of the study revealed that short term debt significantly and negatively affected ROE and ROA. The finding further agree with Makori (2017) who

did a study to find out how short-term financing decisions affect the financial performance of non-financial firms listed at the NSE, Kenya. The results of the study revealed that short term debts and financial performance are linked with each other. However, the result contradict with Shikumo, Oluoch and Wepukhulu (2020) who assessed on how short term debt affects the financial growth of non-financial firms listed at NSE. The findings revealed that short term debt had a positive and significant effect on the financial growth measured using both growth in earnings per share and growth in market capitalization.

For long term debts, the study established that they had strong and negative relationship with financial performance ( $r=0.629$ ). Long terms mature in a period of more than a year and they are more costly as compared to short term debts. Lenders require compensation of the risk premium for the long period of time that long term debts take in event of bankruptcy of the borrowers. Thus, the heavy costs of long term represent a cash outflow from an organization that can negatively affect the financial position hence the reported negative relationship. This finding agrees with Bannerman and Fu (2019) who researched on how long term debt affects the growth of a firm in China. The results of the study revealed that long term debt had a negative effect on the growth of the firm. The finding further agrees with Muzeya (2017) who assessed on how debt finance affects the financial performance of a firm using a case study of Telone private limited. The results of the study revealed that debt financing had a significant effect on ROA of the organization which was a measure of financial performance. The finding is consistent with Nazir, Azam and Khalid (2021) who conducted a study to find out how debt financing affects the performance of a firm using a case study of the Pakistan Stock Exchange. The findings of the study revealed that both short- and long-term debt negatively and significantly affected the performance of a firm in terms of profitability indicating that agency problems could lead to a high-debt strategy, which would result in poor performance. However, the finding contradicts with Ng'ang'a (2017) who did a study to find out how debt financing affects the financial performance of Private Secondary Schools in the County of Kajiado. The findings of the study revealed that there was a positive and insignificant effect between debt financing and financial



performance of private secondary schools in the County of Kajiado. The finding further contradict with Kirimi, Simiyu and Murithi (2017) who assessed on how debt finance affects financial performance of savings and credit cooperative societies in Maara Sub-county, Tharaka Nithi County, Kenya. The results of the study revealed that there was a strong positive relationship of 0.984 between debt and ROE while a negative relationship existed between interest rate, loan tenure and ROE while a positive relationship was revealed between debt equity ratio and interest coverage ratio on ROE respectively.

The study established that debt-equity financing had strong and negative relationship with financial performance ( $r=-0.604$ ). This negative relationship could be attributed to more debts as compared to equities in the capital structure of the firm which need regular repayment representing cash outflow from the firm. The finding contradict with Musila (2015) who did a study to find out how equity financing relates with financial performance of the energy and petroleum companies listed at the Nairobi securities exchange. The study results revealed that there was an insignificant but positive relationship between equity financing and financial performance. The result is consistent with Muturi and Njeru (2019) who researched on how equity finance affects financial performance of small and medium enterprises in Kenya. The findings of the study revealed that equity finance significantly related with financial performance of Kenyan SMEs. The result agrees with Achieng, Muturi and Wanjare (2018) who investigated on how equity financing options affects the financial performance of non-financial firms listed at the Nairobi Securities Exchange, Kenya. The results of the study revealed that CS ratio had a significant and negative effect on ROA while REN ratio significantly and positively affected ROA

On the other hand, interest coverage had a weak but positive relationship with financial performance ( $r=0.146$ ). This positive relationship implies that honoring debt repayment obligation can improve the credit worthiness of the firm and its overall credit rating. This will make it easier for the firm to access huge amount of funds needed for investment purpose so that more revenues are generated for maximization of the wealth of the shareholders. The finding agrees with Ji (2019) who investigated on how interest ratio

coverage ratio affects the value relevance of reported earnings in South Korea. The findings of the study revealed that interest coverage ratio had a positive effect on the value relevance of reported earnings. Ngumo (2012) assessed on how interest rates affects the financial performance of firms offering mortgages in Kenya. The study results revealed that interest rates positively related with financial performance of the firms.

#### 4.7 Regression Results and Hypothesis Testing

Regression analysis was performed to predict financial leverage on financial performance. Table 4.5 represents the findings of the model summary.

**Table 4. 6: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.862 <sup>a</sup>	.744	.702	1.03059

a. Predictors: (Constant), Interest coverage, Short term debt, Long-term debt, Debt-equity financing

**Source: Research Data (2022)**

From Table 4.6, the study established that 74.4% change in financial performance of the listed insurance firms in Kenya is explained by financial leverage ( $R^2=0.744$ ). The finding is supported by Kithandi and Katua (2019) who did a study on the effect of financial leverage on financial performance of the energy and petroleum sector companies listed in the Nairobi Securities Exchange. The findings of the study revealed that financial leverage and financial performance of petroleum and energy sector firms listed in the NSE negatively related to each other. This implies that aside from financial leverage, there are still factors that account for the unexplained variation in financial performance of these firms to a tune of 25.6%. Thus, the focus of further studies should be on covering and establishing these other factors. Table 4.7 is a breakdown of the ANOVA results.

**Table 4.7: ANOVA Findings**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	76.974	4	19.244	18.118	.000 <sup>b</sup>
Residual	26.553	25	1.062		
<b>Total</b>	<b>103.527</b>	<b>29</b>			

**a. Dependent Variable: Financial performance**

**b. Predictors: (Constant), Interest coverage, Short term debt, Long-term debt, Debt-equity financing**

**Source: Research Data (2022)**

Table 4.7 implies that on overall, the regression model used to predict financial leverage on financial performance was significant (F=18.118, p<0.05). The findings on regression beta coefficients and significance were established and summarized as shown in Table 4.8.

**Table 4.8: Regression Coefficients and Significance**

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	
(Constant)	2.327	.400		5.811	.000
Short term debt	-3.324	.907	-.379	-3.663	.001
Long-term debt	-19.656	4.283	-.490	-4.589	.000
Debt-equity financing	-.255	.049	-.554	-5.169	.000
Interest coverage	.001	.007	.011	.104	.918

**a. Dependent Variable: Financial performance**

**Source: Research Data (2022)**

Based on Table 4.8, the following model is predicted between financial leverage and financial performance:

$$Y_{it} = 2.327 - 3.324X_{1it} - 19.656X_{2it} - 0.255X_{3it} + 0.001X_{4it} + \alpha_{it}$$

Where Y is the financial performance

$\alpha$  refers to the Y intercept of the linear model

$X_{1it}$  refers to short term debts of firm i at time t

$X_{2it}$  refers to long term debts of firm  $i$  at time  $t$

$X_{3it}$  refers to debt-equity financing of firm  $i$  at time  $t$

$X_{4it}$  refers to interest coverage of firm  $i$  at time  $t$

**Ho1: Short term debt has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya**

From the findings in Table 4.8, short term debt had a negative beta coefficient ( $\beta=-3.324$ ) with p-value of 0.001 ( $p<0.05$ ), which infers that it was significant. Therefore, the study rejected hypothesis Ho1 and deduced that short term had negative and significant relationship with financial performance. The finding agrees with Mugisha, Omagwa and Kilika (2020) who researched on how short-term debt affects financial performance of SMEs in the region of Buganda, Uganda. The study results revealed that short-term debt negatively and significantly affected the financial performance of SMEs as measured by return on assets. The result agrees with Mboi, Muturi and Wanjare (2018) researched on how short-term debt to total assets ratio affects the financial performance of Kenyan medium-sized and large enterprises. The results of the study revealed that short term debt significantly and negatively affected ROE and ROA. The finding further agree with Makori (2017) who did a study to find out how short-term financing decisions affect the financial performance of non-financial firms listed at the NSE, Kenya. The results of the study revealed that short term debts and financial performance are linked with each other. However, the result contradict with Shikumo, Oluoch and Wepukhulu (2020) who assessed on how short term debt affects the financial growth of non-financial firms listed at NSE. The findings revealed that short term debt had a positive and significant effect on the financial growth measured using both growth in earnings per share and growth in market capitalization.

**Ho2: Long term debt has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.**

The results from Table 4.8 show that long term had negative beta coefficient ( $\beta=-19.656$ ) with p-value of 0.000 ( $p<0.05$ ). The study therefore deduced that long term debt was significant and thus hypothesis Ho2 was rejected. Therefore, the study infers that long term debts have negative and significant relationship with financial performance. This finding agrees with Bannerman and Fu (2019) who researched on how long term debt affects the growth of a firm in China. The results of the study revealed that long term debt had a negative effect on the growth of the firm. The finding further agrees with Muzeya (2017) who assessed on how debt finance affects the financial performance of a firm using a case study of Telone private limited. The results of the study revealed that debt financing had a significant effect on ROA of the organization which was a measure of financial performance. The finding is consistent with Nazir, Azam and Khalid (2021) who conducted a study to find out how debt financing affects the performance of a firm using a case study of the Pakistan Stock Exchange. The findings of the study revealed that both short- and long-term debt negatively and significantly affected the performance of a firm in terms of profitability indicating that agency problems could lead to a high-debt strategy, which would result in poor performance. However, the finding contradicts with Ng'ang'a (2017) who did a study to find out how debt financing affects the financial performance of Private Secondary Schools in the County of Kajiado. The findings of the study revealed that there was a positive and insignificant effect between debt financing and financial performance of private secondary schools in the County of Kajiado. The finding further contradict with Kirimi, Simiyu and Murithi (2017) who assessed on how debt finance affects financial performance of savings and credit cooperative societies in Maara Sub-county, Tharaka Nithi County, Kenya. The results of the study revealed that there was a strong positive relationship of 0.984 between debt and ROE while a negative relationship existed between interest rate, loan tenure and ROE while a positive relationship was revealed between debt equity ratio and interest coverage ratio on ROE respectively.

**Ho3: Debt-equity financing has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya**

From Table 4.8, the findings on debt equity financing were as follows;  $\beta = -0.255$  and  $p = 0.000 < 0.05$ . Thus, the study inferred that debt equity financing was significant hence hypothesis Ho3 was rejected. The study deduced that debt-equity financing had a negative and significant relationship with financial performance. The finding contradicts with Musila (2015) who did a study to find out how equity financing relates with financial performance of the energy and petroleum companies listed at the Nairobi securities exchange. The study results revealed that there was an insignificant but positive relationship between equity financing and financial performance. The result is consistent with Muturi and Njeru (2019) who researched on how equity finance affects financial performance of small and medium enterprises in Kenya. The findings of the study revealed that equity finance significantly related with financial performance of Kenyan SMEs. The result agrees with Achieng, Muturi and Wanjare (2018) who investigated on how equity financing options affects the financial performance of non-financial firms listed at the Nairobi Securities Exchange, Kenya. The results of the study revealed that CS ratio had a significant and negative effect on ROA while REN ratio significantly and positively affected ROA. The finding contradicts Saad et al., (2014) who conducted a study to find out how equity and debt financing affects the performance of SME in Malaysia. The findings of the study revealed that equity financing significantly and positively related with performance of a business while debt financing was found to be insignificant.

**Ho4: Interest coverage has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya.**

The results shown in Table 4.8 show that interest coverage had  $\beta = -0.001$  with p-value  $(0.918) > 0.05$  thus it was insignificant. Hence, the study accepted hypothesis Ho4 and

deduced that interest coverage has no significant relationship with financial performance. The finding agrees with Ji (2019) who investigated on how interest ratio coverage ratio affects the value relevance of reported earnings in South Korea. The findings of the study revealed that interest coverage ratio had a positive effect on the value relevance of reported earnings. Ngumo (2012) assessed on how interest rates affects the financial performance of firms offering mortgages in Kenya. The study results revealed that interest rates positively related with financial performance of the firms.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The chapter presents a summary of the analyzed findings while drawing relevant conclusion. The recommendations for policy and practice are also indicated. The chapter also points out the areas that require further research.

#### 5.2 Summary of the Findings

The subsequent sections provide summary of the analyzed findings guided by the specific objectives.

##### 5.2.1 Short Term Debts and Financial Performance

There was a decreasing trend in short term debts among the insurance firms studied across the period of consideration. Correlation results indicated that short term debts have weak and inverse relationship with financial performance ( $r=-0.272$ ). From the findings, short term debt had a negative beta coefficient ( $\beta=-3.324$ ) with p-value of 0.001 ( $p<0.05$ ), which infers that it was significant. Therefore, the study rejected hypothesis  $H_{o1}$  and deduced that short term had negative and significant relationship with financial performance.

##### 5.2.2 Long Term Debts and Financial Performance

There was a drop in long term debts as a means of financing among the insurance firms in Kenya. For long term debts, the study established that they had strong and negative relationship with financial performance ( $r=0.629$ ). The results from show that long term had negative beta coefficient ( $\beta=-19.656$ ) with p-value of 0.000 ( $p<0.05$ ). The study therefore deduced that long term debt was significant and thus hypothesis  $H_{o2}$  was



rejected. Therefore, the study infers that long term debts have negative and significant relationship with financial performance.

### **5.2.3 Debt-Equity Financing and Financial Performance**

There was a drop in the debt-equity financing among the studied insurance firms. The study established that debt-equity financing had strong and negative relationship with financial performance ( $r=-0.604$ ). The findings on debt equity financing were as follows;  $\beta=-0.255$  and  $p=0.000<0.05$ . Thus, the study inferred that debt equity financing was significance hence hypothesis Ho3 was rejected. The study deduced that debt-equity financing had a negative and significant relationship with financial performance

### **5.2.4 Interest Coverage and Financial Performance**

The interest coverage of the studied firms sharply increased from 2017 to 2019 before a sharp and consistent drop from 2019 to 2021. From correlation analysis, interest coverage had a weak but positive relationship with financial performance ( $r=0.146$ ). The results show that interest coverage had  $\beta=-0.001$  with p-value ( $0.918$ ) $>0.05$  thus it was insignificant. Hence, the study accepted hypothesis Ho4 and deduced that interest coverage has no significant relationship with financial performance.

## **5.3 Conclusion**

The first hypothesis was Ho1 short term debt has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. Based on regression results, the beta coefficient of short term debt was negative but significant and thus Ho1 was rejected. Thus, the study concludes that overlying too much on short term debts can adversely affect the financial position of the firm. This is particularly true in the event that the firm fails to meet their short term debt obligations in due to liquidity constraints. The study further concludes that relying too much on short term debts can increase the risk of financial distress of the firm in the event of bankruptcy and corporate distress.

The study had hypothesized that Ho2 long term debt has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. The findings of regression analysis indicated that long term had negative but significant relationship with financial performance and thus hypothesis Ho2 was rejected. Thus, the study conclude that long term borrowing can adversely affect the financial position of the firm through increased risk of financial distress in the event that the firm has failed to honor the debt obligations. This also implies that debts can be beneficial to the firm when prudently utilized to undertake projects that create value for the shareholders.

The third hypothesis of the study was Ho3 debt-equity financing has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. As per the regression results, the study established a negative beta that was significant and thus Ho1 was rejected. Thus, the study concludes that failing to establish a optimal balance between debts and equities in the capital structure may adversely affect financial position. Thus, for maximization of the wealth shareholders and the value of the firms, optimal debt equity mix should be established.

The last hypothesis of the study was Ho4 interest coverage has no significant relationship with financial performance of insurance firms listed on the Nairobi Securities Exchange, Kenya. Regression results showed that interest coverage had a positive but insignificant beta and thus Ho4 was accepted. Thus, the study concludes that interest coverage is not a critical driver when it comes to financial performance of the listed insurance firms in Kenya.

#### **5.4 Recommendations of the Study**

The study recommends that the finance managers of the listed insurance firms in Kenya should establish optimal debt-equity mix that maximizes the value of their firms. It is important for the finance managers of the listed insurance firms in Kenya to balance

between short term and long debts used to finance the operations of their firms. The finance managers need to manage costs effectively so as to generate more profits to meet the debts obligations as they fall due.

The senior management team in the listed insurance firms should prudently utilize the borrowed funds in financing projects that create and maximize the wealth of their shareholders as this is the basic objective and obligation to the shareholders. The marketing managers as part of the senior management team should develop and implement relevant revenue generating strategies to improve the EBIT of the listed insurance firms so that they can be able to meet their debt obligations without hurting the financial position. The management team of IRA will leverage the results of the study to implement relevant strategies of enhancing financial stability of the insurance firms.

The investors and shareholders of the listed insurance firms in Kenya should be more active and demand for prudent utilization of the short and long term debts by the management. This can be well realized through the board of directors who are the oversight role on behalf of the shareholders.

The policy makers at IRA should develop policies and regulations that can guide debt management among insurance firms. The policy makers at CMA need to develop suitable policies on debt management among the listed insurance firms. The policy makers working in the listed insurance firms in Kenya should review the existing policies on debt management in their firms.

## **5.5 Contribution of the Study to Theory and Knowledge**

This study has contributed towards understanding and appreciating the significant role played by financial leverage on financial position of the firm. The study has demonstrated that short term debts, long term debts and debt-equity financing are the salient aspects of financial leverage that firms need to consider if they have to remain profitable. Practically, the study has shown that balancing the debts and equities in their capital structure is critical in maximizing the value of the firm and the wealth of the

shareholders. The implication of the findings is that relying too much on debts can increase the risk of financial distress which may negatively affect the financial position of the firm. The study has also contributed to the understanding the effective utilization of the borrowed funds can improve financial position of the firm.

The study has contributed in understanding and appreciating the pecking order, trade off and agency theory. Contrary to the pecking order theory that require firms to finance their operations through debts (internal sources) and only utilize equities as a last resort, this study has revealed that too much use of debts can adversely affect the financial position of the firm. For trade off theory, the findings imply that establishing an optimal debt-equity mix requires firms to balance between the costs and benefits of debts. With respect to agency theory, the study has contributed towards understanding the need for managers of firms to prudently utilize the debts borrowed so as to maximize the wealth of the shareholders.

### **5.6 Suggestions for Further Research**

The present study established that financial leverage only explained 74.4% of variation in financial performance. This means that there are still other factors that have an effect on financial performance that future studies should seek to establish. The findings of the present study have contradicted the pecking order theory. Thus, further research should be seek to establish why firms should be cautious when using debt financing as opposed to equity financing. The present study was limited to a small sample size of six listed insurance firms indicated on appendix I. This can limit generation of the findings to the entire insurance industry. Thus, future studies can be conducted taking relatively larger sample sizes.

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## APPENDICES

### **Appendix I: Listed Insurance Firms in Kenya**

1. Jubilee Holdings Ltd
2. Sanlam Kenya PLC
3. Kenya Re-Insurance Corporation Ltd
4. Liberty Kenya Holdings Ltd
5. Britam Holdings Ltd
6. CIC Insurance Group Ltd

Source: NSE (2020)

## Appendix II: Data Collection Schedule

<b>Year</b>	<b>Current liabilities</b>	<b>Total liabilities</b>	<b>Long term debts</b>	<b>Total assets</b>	<b>Total equity</b>	<b>Interest expense</b>	<b>EBIT</b>	<b>Net income</b>
2017								
2018								
2019								
2020								
2021								

### Appendix III: Secondary Data Collected and Analyzed

<b>Company</b>	<b>Year</b>	<b>Short term debt</b>	<b>Long-term debt</b>	<b>Debt-equity financing</b>	<b>Interest coverage</b>	<b>Financial performance</b>
Jubilee Holdings Ltd	2017	0.025	0.019	3.160	1.217	0.040
Sanlam Kenya PLC	2017	0.526	0.035	6.357	1.287	0.002
Kenya Re-Insurance Corporation Ltd	2017	0.369	0.015	0.571	2.667	0.084
Liberty Kenya Holdings Ltd	2017	0.431	0.036	3.997	0.348	0.023
Britam Holdings Ltd	2017	0.011	0.080	3.368	0.730	0.009
CIC Insurance Group Ltd	2017	0.042	0.167	2.994	0.799	0.016
Jubilee Holdings Ltd	2018	0.029	0.016	3.067	1.155	0.037
Sanlam Kenya PLC	2018	0.539	0.195	17.337	-11.097	-10.317
Kenya Re-Insurance Corporation Ltd	2018	0.375	0.017	0.564	1.536	0.051
Liberty Kenya Holdings Ltd	2018	0.342	0.029	3.801	82.058	0.015
Britam Holdings Ltd	2018	0.084	0.027	3.327	-9.784	-0.021
CIC Insurance Group Ltd	2018	0.044	0.038	5.398	-14.197	0.002
Jubilee Holdings Ltd	2019	0.019	0.000	11.641	1.762	0.019
Sanlam Kenya PLC	2019	0.503	0.022	2.410	0.036	0.001
Kenya Re-Insurance Corporation Ltd	2019	0.337	0.014	0.576	2.044	0.079
Liberty Kenya Holdings Ltd	2019	0.387	0.032	3.758	90.369	0.019
Britam Holdings Ltd	2019	0.079	0.054	3.263	19.479	0.028
CIC Insurance Group Ltd	2019	0.036	0.041	6.243	15.877	0.008
Jubilee Holdings Ltd	2020	0.018	0.000	10.881	1.399	0.013
Sanlam Kenya PLC	2020	0.515	0.014	3.034	0.241	0.029
Kenya Re-Insurance Corporation Ltd	2020	0.526	0.013	0.548	20.275	0.055
Liberty Kenya Holdings Ltd	2020	0.018	0.004	3.515	84.897	0.017
Britam Holdings Ltd	2020	0.013	0.035	7.025	-26.823	-0.007
CIC Insurance Group Ltd	2020	0.174	0.102	1.000	-0.003	-0.008
Jubilee Holdings Ltd	2021	0.001	0.000	13.581	14.575	0.009
Sanlam Kenya PLC	2021	0.534	0.014	2.611	0.241	0.029
Kenya Re-Insurance Corporation Ltd	2021	0.528	0.008	0.399	1.358	0.026
Liberty Kenya Holdings Ltd	2021	0.002	0.002	3.592	28.879	0.002
Britam Holdings Ltd	2021	0.186	0.032	0.012	0.022	0.239
CIC Insurance Group Ltd	2021	0.043	0.105	4.203	2.226	0.016