

FIRM CHARACTERISTICS AND FINANCIAL PERFORMANCE OF INSURANCE

COMPANIES IN KENYA

IRERI LILIAN MUKAMI

D53/CTY/PT/21094/2012

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN
PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE IN MASTER OF
BUSINESS ADMINISTRATION (FINANCE)**

APRIL, 2022

DECLARATION

Declaration by candidate

I hereby declare that this project is my original work and has not been presented for a degree in any other University.

.....
Signature

.....
Date

Ileri Lilian Mukami

D53/CTY/PT/21094/2012

Declaration by supervisor

I confirm that the work in this project was done by the candidate under my supervision.

.....
Signature

.....
Date

Dr. Lucy Wamugo Mwangi

Department of Accounting and Finance

School of Business

Kenyatta University

DEDICATION

I dedicate this research project to my parents Prof. and Mrs. Ileri, for always supporting and encouraging me throughout my period of study, my siblings, Salome and Richard, for their love and moral support and finally, my beloved daughter, Jaimie who constantly motivates me to work towards the achievement of my goals.

ACKNOWLEDGEMENT

I am appreciative to the Almighty for bestowing unto me good health and the determination to realize my goal of acquiring an Mba (Finance) degree. I sincerely appreciate the contribution of my supervisor, Dr. Lucy Wamugo Mwangi, whose guidance has been instrumental in writing down a meaningful project. Finally, I am thankful to my loving family for being a constant source of motivation and a great support system during my period of study.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
OPERATIONAL DEFINITION OF TERMS.....	x
ABBREVIATIONS AND ACRONYMS.....	xii
ABSTRACT.....	xiii
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.1.1 Financial Performance.....	4
1.1.2 Firm Characteristics.....	6
1.1.3 Insurance Industry in Kenya.....	14
1.2 Statement of the Problem	14
1.3 Objectives of the Study	16
1.3.1 General Objective	16
1.3.2 Specific Objectives	16
1.4 Research Hypothesis.....	17
1.5 Significance of the Study	17
1.6 Scope of the Study.....	18
1.7 Limitation of the Study	19
1.8 Organization of the Study	20
CHAPTER TWO	21
LITERATURE REVIEW	21
2.1 Introduction	21
2.2 Theoretical Review	21
2.2.1 Transaction Cost Theory of the Firm	21
2.2.2 Trade off Theory.....	22
2.2.3 Agency Theory	23
2.2.4 Liquidity Preference Theory.....	24

2.2.5 The Resource-Based Theory	25
2.3 Empirical Review	26
2.3.1 Effect of Incurred Claims on Financial Performance	26
2.3.2 Effect of Leverage on Financial Performance	28
2.3.3 Effect of Premium Growth on Financial Performance	30
2.3.4 Effect of Liquidity on Financial Performance	32
2.3.5 Effect of Firm Age on Financial Performance	34
2.4 Summary of Literature and Research Gaps.....	37
2.5 Conceptual Framework	38
CHAPTER THREE	41
RESEARCH METHODOLOGY	41
3.1 Introduction	41
3.2 Research Design	41
3.3 Empirical Model.....	41
3.3.1 Operationalization and Measurement of Variables	43
3.4 Target Population	44
3.5 Sampling Design	45
3.6 Data Collection Instrument	45
3.7 Data Collection Procedure	45
3.8 Data Analysis and Presentation.....	46
3.9 Diagnostic Tests	47
3.10 Ethical Considerations.....	49
CHAPTER FOUR.....	50
RESEARCH FINDINGS AND DISCUSSION.....	50
4.1 Introduction	50
4.2 Descriptive Statistics	50
4.2.1 Descriptive Statistics for the Study Variables	50
4.3. Trends of Variables	53
4.3.1 Trend in Financial Performance	54
4.3.2 Trend in Incurred Claims Ratio	55
4.3.3 Trend in Leverage.....	56
4.3.4 Trend in the Premium Growth Ratio	57
4.3.5 Trend in Liquidity.....	58
4.4 Diagnostic Tests	59

4.4.1 Multicollinearity Test	59
4.4.2 Unit Root Test	60
4.4.3 Test of Normality.....	61
4.4.4 Test for Fixed and Random Effects	61
4.5 Research Hypothesis Testing	63
4.5.1 Effect of Firm Characteristics on Financial Performance	63
CHAPTER FIVE	70
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	70
5.1 Introduction	70
5.2 Summary of Findings	70
5.3 Conclusion.....	71
5.4 Recommendations	72
5.5 Contribution to Knowledge.....	75
5.6 Suggestion for Further Research.....	75
REFERENCES.....	77
APPENDICES	86
Appendix i : Data Collection Form	86
Appendix ii: List of Kenyan Insurers	87
Appendix iii: Graduate School Research Authorization	89
Appendix iv: Research License.....	90

LIST OF TABLES

Table 1.1: Trend in Industry's Net Incurred Claims Ratio	8
Table 1.2: Trend in In Industry's Debt to Asset Ratio.....	9
Table 1.3: Trend in The Total Industry's Current Ratio	12
Table 2.1: Summary of Literature and Research Gaps	37
Table 3.1: Operationalization and Measurement of Variables	44
Table 4.1: Summary of Descriptive Statistics.....	51
Table 4.2: Collinearity Statistics.....	59
Table 4.4: Augmented Dickey-Fuller Test	60
Table 4.5: Shapiro-Wilk Test for Normality.....	61
Table 4.7: Hausman Specification Test for ROA	62
Table 4.8: Test of Fitness.....	64
Table 4.9: Analysis of Variance.....	65
Table 4.10: Regression Results with ROA	65
Table 4.11 Summary of Hypothesis Testing.....	69

LIST OF FIGURES

Figure 1.1: Trend in ROA for Kenyan Insurance Companies	5
Figure 1.2: Trend in Industry's Premium Growth Ratio.....	10
Figure 2.1: Conceptual Framework	39
Figure 4.1: Trend in the Combined Insurers' ROA from 2015 to 2020	54
Figure 4.2: Trend in the Total Insurers' Incurred Claims Ratio from 2015 to 2020	55
Figure 4.3: Trend in Total-Debt-to-Total- Asset Ratio from 2015 to 2020.....	56
Figure 4.4: Trend in the Combined Premium Growth Ratio for Insurers from 2015 to 2020.....	57
Figure 4.5: Trend in the Combined Current Ratio for the insurers from 2015 to 2020.....	58

OPERATIONAL DEFINITION OF TERMS

Firm Age	Duration of time in years that an insurance company has been underwriting policies. In this study, it was proxied from the time of insurer's incorporation and licensing up to the present year of study.
Incurred Claims	A measure of the amount of funds that are lost by an insurance company in the form of claims settlements in relation to the amount of premiums earned within a specified time frame. The variable was proxied by the claims ratio which is a percentage of the net claims that have been incurred by an insurer to the net premiums that have been earned over a specified time frame.
Financial Performance	The degree to which a company can efficiently and effectively employ assets from its core business to earn sufficient revenues. It is employed to evaluate the financial well-being of an insurance firm within a specified period. Return on Assets was utilized as a proxy for financial performance.
Firm Characteristics	Internal features that affect the general health of a company. In this study, the features included: incurred claims, leverage, premium growth, liquidity and firm age.
Leverage	Portion of funds within an organization's capital structure that has been borrowed and employed for the generation of income. It was

proxied by the debt to asset ratio; which is a measure of all the liabilities that a firm owes to all the assets that a firm possesses.

Liquidity

The potential of an insurer to fulfill its immediate financial commitments to both the insured and creditors by the use of cash generated from underwriting and investment activities. In this study, current ratio; which is a measure of an organization's current assets relative to its current-liabilities over a specified time frame, was employed as a proxy for liquidity.

Premium

The amount of money an individual or a business is required to pay to an insurance company in exchange for a policy.

Premium Growth

Percentage change in premiums within a specified time period. It compares the net premiums of one year to the net premiums of the subsequent year.

Return on Assets

Income generated from one unit of asset of an insurance company.

Underwriters

Institutions that enter into contracts with individuals or groups with the intent of offering insurance policies in exchange for a specified amount of money for a specified time frame.

ABBREVIATIONS AND ACRONYMS

AKI	:	Association of Kenya Insurers
CO.	:	Company
COVID-19	:	Corona Virus Disease-2019
GDP	:	Gross Domestic Product
IAIS	:	International Association of Insurance Supervisors
IASB	:	International Accounting Standards Board
IRA	:	Insurance Regulatory Authority
OLS	:	Ordinary Least Squares
PBT	:	Profit Before Tax
ROA	:	Return on Assets
ROE	:	Return on Equity

ABSTRACT

The insurance industry in Kenya has been experiencing an overall decline in its financial performance as indicated in the reducing trend in the total industry's ROA since 2015. The sector has also been posting underwriting losses with several classes of insurance business registering overall losses from 2015 to 2020. The classes are: aviation, fire domestic, motor private, motor commercial and medical. As a result, some underwriters such as Invesco Assurance and Amaco Limited have undergone liquidation bids due to their inability to settle claims on time. The insurance sector's level of input to the country's Gross Domestic Product has ultimately continued to remain low as it gradually diminishes. Insurance underwriters are thus faced with the dilemma of maintaining a strong financial performance which is critical to their health, survival and ability to sustain a competitive advantage. This study hence purposed to determine the effect of firm characteristics on the financial performance of insurance companies in Kenya. The research was guided by the following specific objectives: to determine the effect of incurred claims on the financial performance of insurance companies in Kenya; to establish the effect of leverage on the financial performance of insurance companies in Kenya; to determine the effect of premium growth on the financial performance of insurance companies in Kenya; to establish the effect of liquidity on the financial performance of insurance companies in Kenya and to determine the effect of firm age on the financial performance of insurance companies in Kenya. The study reviewed the transaction theory of the firm, the trade-off theory, the agency theory, liquidity preference theory and the resource-based theory. A descriptive research design was employed. All the 56 Kenyan insurers were the population of the study. A census of all the insurers that were in operation from 2015 to 2020 was conducted. Collection of secondary panel data from insurers' audited and published annual financial statements from the year 2015 to 2020 took place. All the data was extracted from the Insurance Regulatory Authority website. A data collection guide was the main data collection instrument. The study employed the STATA 14 software to run both the descriptive and inferential statistics; findings were presented via tables and graphs. Variables were analyzed using a panel regression model; a Hausman Specification test revealed that the ideal model for analysis was the Random Effects Model. Findings indicated that incurred claims had a negative and statistically significant effect on insurers' financial performance. On the other hand, a positive and statistically significant association was found between leverage, premium growth, liquidity, firm age and insurer's financial performance. The study recommends embracing of innovations and new technology such as smart assurance applications and insuretechs so as to minimize the cost of policyholder enrolment, claims settlement and even encourage access to tailor made policies which will result in a surge in premium growth, cost minimization, improved customer satisfaction and ultimately improve how insurers' perform financially.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Kenya's Vision 2030 recognizes the insurance industry as part of the seven priority sectors that are crucial for the realization of a robust financial market that can sustain a globally competitive edge (Government of the Republic of Kenya Report, 2007). The underwriting industry is pivotal in rendering financial security and risk management mechanism that are significant for a sustainable national development while also decreasing socio-economic vulnerabilities (Shawar & Danish, 2019). Kenyan insurance industry has therefore aligned its objectives with the national objectives set out in the Big Four Agenda and The Vision 2030 by developing the 2018-2022 Strategic Plan (IRA Report, 2018).

The sector is expected to create policies that are business friendly and programs that serve the best interest of the citizens, especially low-income earners and the highly vulnerable groups in the society (Kiptoo, Kariuki & Ocharo, 2021). Morara & Sibindi (2021) reveals that the underwriting industry will ensure the protection of wealth and the mobilization of savings in order to help finance Kenya's growing investment needs. Consequently, the insurance per capita is anticipated to grow and the sector's degree of input to Kenya's GDP is also expected to improve.

According to Olalekan (2018), accessibility of insurance services for purposes of dealing with contingencies and emergencies is a necessity therefore making insurance a public good. Despite the importance of insurance, the industry continuously faces a number of challenges that have led to a weakening of the overall financial performance (Kang'e, Senaji & Orero, 2020). As

indicated by the Deloitte (2019) a surge in competition and a downward revision of insurance premiums for some classes of insurance business has negatively affected the potential for insurers to perform better financially. Suboptimal returns on investment from property and equity markets have also made it difficult for insurance to compensate for the huge annual underwriting losses witnessed since 2015 (Morara & Sibindi, 2021).

Nduyu & Magutu (2018) reveal that the sector has had to tackle the problem of insurance brokers who owe them in excess of KES. 43 billion worth of unremitted premiums. Insurance brokers are statutorily obligated to collect premium payments from customers and subsequently remit the money to insurers. Insurance brokers have however failed to meet their obligation and instead embezzle the cash which exposes customers to heavy losses and thus negatively affects the financial stability of insurers.

The NHIF Amendment Bill, 2021 that has been tabled to parliament has raised a lot of concern from the underwriting industry (AKI, 2021). The bill which seeks to mandate employers to match employee NHIF contributions will unfavourably affect the labour cost. As a result, employers who take private health insurance covers may halt the program or substantially decrease the medical benefits at their employees' disposal so as to curb the inflated labour costs; eventuating in a decline in insurance sales.

KPMG (2016) indicates that insurance companies are struggling to maintain a stable insurance industry that can mitigate risks and drive the attainment of the economic objectives set out in the Third Medium Term Plan 2018-2022. The report further explains that the overall degree of input of the industry to Kenya's GDP has been on a downward trend. The penetration rate was at its

highest in 2013 at 3.4% and has been on the decline since then to 2.3% in 2020 (Kiptoo *et al.*, 2021).

The sale on insurance products has also been on the decline owing to inadequate consumer education on the importance of insurance (Kang'e *et al.*, 2020). The income sensitive public views insurance as a luxury rather than a necessity and therefore does not prioritize it, while a majority of consumers only take out covers that they deem as mandatory such as automobile and health insurance.

Chepkoech & Rotich (2017) reveal that the insurance sector has struggled with issues of fraud and inflated claims especially in health and motor insurance. The soaring numbers of fraud cases have led to a rise in the cost of doing business due to high claims costs, investigation costs and insolvency. As a result, a section of the motor vehicle insurance providers have done an upward revision of their premiums by as much as 50% effective 1st January 2022 (Deloitte, 2022). The insurers argue that inflated claims costs due to fraud and a surge in road accidents outweigh the amount of premium income which has ultimately contributed to their consistent annual losses. Kiptoo *et al.* (2021) reveals that the COVID-19 pandemic has had unfortunate consequences on the insurance industry in Kenya from reduction in premiums, soaring claims in health and life insurance and depressed earnings from capital markets.

Globally, regulatory shifts have been taking place leading to the convergence and consolidation of the insurance industry and an increase in the demand to undertake risk underwriting (EY, 2018). There has also been continuous improvement to the global best practice standards by the International Association of Insurance Supervisors in an effort to standardize member states' regulatory frameworks (IRA Report, 2018). New standards of financial reporting are also

expected to be rolled out by the IASB so as to promote transparency of insurance contracts (OECD, 2018). There has also been a surge in the use of technology globally; this is in the form of smart insurance which involves customizing policies for the customer based on their need and exposure to a risk (Shawar & Danish, 2019).

Insurance companies generate income from underwriting and investment activities with the expectation of strengthening the value of the firm's owner's returns (Ajao & Eghosa, 2018). Kang'e *et al.* (2020) however reveals that the Kenyan underwriting industry has been registering overall losses in its underwriting activities since 2015 which has led to a weak financial performance. This has subsequently resulted in the inability of some insurers to make claims settlements and honor their pecuniary contracts before they expire. Such insurance firms have been placed under statutory management as they await liquidation (Kiptoo *et al.*, 2021). The dwindling in the overall lucrativeness of the underwriting industry, concomitant with the delayed claims settlement and lack of adequate scholarly information on insurance firms' performance, has motivated the researcher to focus on determining the effect of firm characteristics on the financial performance of insurance companies in Kenya.

1.1.1 Financial Performance

Shawar & Danish (2019) explain that the evaluation of how an organization performs financially can provide insight on how efficiently and effectively assets from its core business are being exploited for the purpose of generating revenues and gaining a competitive advantage. It also reveals in monetary terms the general health of an organization (Kamau, Olweny & Muturi, 2021). How an insurer performs financially, significantly determines their market worth; Managers hence can make comparisons between the financial performance of an individual

insurer against the financial performance of other insurers within the same industry (Ajao & Eghosa, 2018).

The researcher used ROA as a proxy for financial performance. ROA is an investment performance indicator majorly employed to assess the lucrativeness of an insurer in relation to its assets (Angga, Isfenti & Iskadar, 2020). According to Olalekan (2018) profit is crucial for the advancement and survival of an insurer and it is also a low-cost source of financing a firm's operations. Lack of profits may seem unattractive to potential investors and may hinder the achievement of set goals; while adequate profits improve an insurer's state of solvency and thus any likelihood of collapsing or being placed under statutory management is diminished (Taye, 2018).

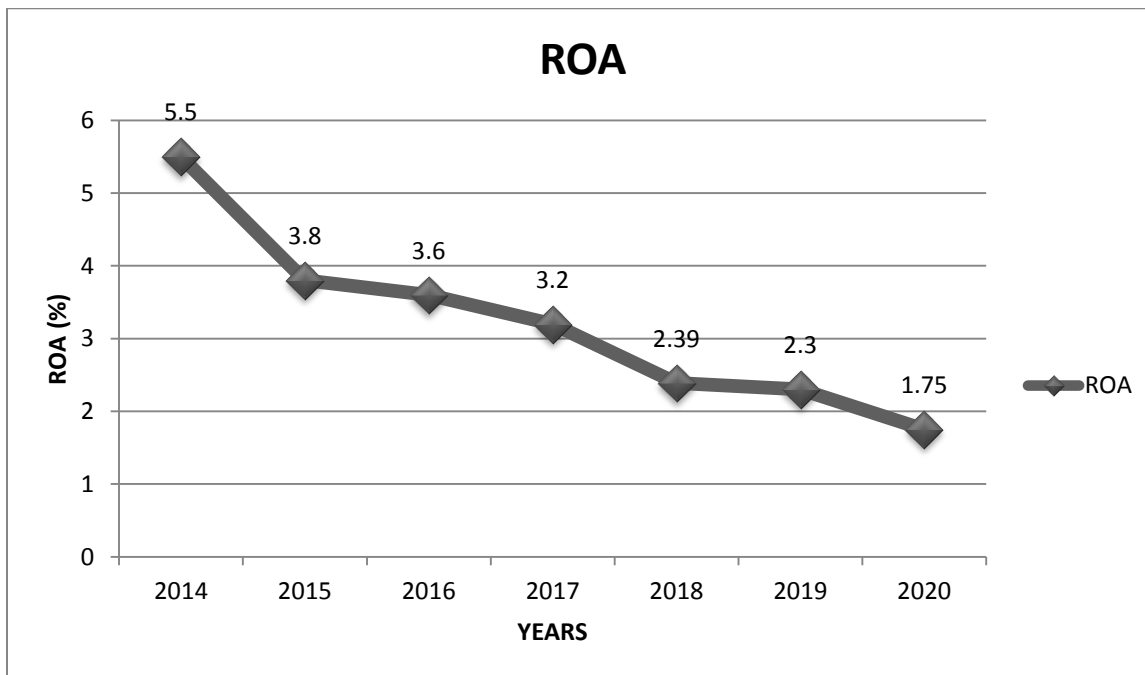


Figure 1.1: Trend in ROA for Kenyan Insurance Companies
Source: IRA (2020)

Figure 1.1 displays the ROA values for Kenyan insurance companies from the period 2014 to 2020. The ROA has been steadily declining which could indicate that the insurance industry has

over invested in assets that have not translated to a surge in revenue. The slump in ROA also signifies a weakening financial performance which is a sign that the Kenyan insurance sector has been experiencing poor financial health (Kang'e *et al.*, 2020).

Globally, the COVID-19 pandemic has continued to rock the insurance industry due to a depressed premium income, a surge in insurance claims, depleting demand for insurance products and diminishing insurance penetration (Babuna, Yang, Gylilbag, Awudi, Ngmenbelle & Bian, 2020). The lockdowns imposed by various governments in a bid to restrict movement have had an undesirable effect on the aviation, marine and tourism & travel insurance business (IRA Report, 2020).

Low interest rates have had unfortunate consequences on the lucrativeness of insurers (EY, 2018). Emerging markets particularly China and emerging Asia, continue to be the main drivers of the global insurance market. The markets aim at improving their earnings by strengthening their underwriting performance particularly due to the prevalence of inflated claims in the region (Sigma 3 Report, 2019).

1.1.2 Firm Characteristics

According to Angga *et al.* (2020) how an insurer performs financially is influenced by macro and micro features. Macro-features are industry and macroeconomic variables that affect the firm but are beyond the manager's control and they include: growth in money supply, inflation rate, GDP, interest rates and existing legislations of the nation (Kanbiro & Ayneshet, 2019).

Ngunguni, Misango & Onsiro (2020) indicates that micro-factors are firm characteristics that are the main reason for inter-firm differences in profits and therefore require sound management decisions aimed at improving an underwriter's ability to perform better financially. Firm

characteristics that were studied were: incurred claims, leverage, premium growth, liquidity and firm age.

Incurred claims, is the aggregate of liabilities outstanding on a policy over a specified time span and the amount includes all paid claims plus an estimate of unpaid claims over a given valuation period (Angga *et al.*, 2020). An overall surge in the amount of claims incurred compared to the premiums earned could be disastrous for an insurer since it would mean that they are taking out more money from the business than they are receiving (Taye, 2018).

The researcher utilised the net-incurred-claims-ratio to assess the ability of an insurer to make claims settlements as they fall due. The net-incurred-claims-ratio measures the underwriting risk of an insurance firm and it is the portion of net claims paid out by an insurer relative to the premiums that an insurer has earned over a specified time span (Msomi & Nyide, 2021). An insurer with a low claims ratio and appropriately priced premiums has the potential to produce more income than an insurance company with a high claims ratio and cheap premiums (Okparaka, 2017).

Table 1.1 exhibits the net-incurred-claims-ratio for Kenyan insurance companies for the period 2014 to 2020. The ratios are all below 100% which indicates that the Kenyan insurance industry has been making more money in form of premiums than it has paid out in form of claims (Deloitte, 2019). The ratios have also steadily soared over the period with 2019 recording the highest ratio of 64.2%. This signifies an escalation in net incurred claims compared to net earned premiums. Proper risk control tactics should therefore be employed so as not to overexpose insurance companies to huge underwriting risks brought about by excessive claims costs compared to low premiums earned.

There was a decline in the incurred claims ratio during the year 2020 which registered a ratio of 63.6%. The slump was greatly linked to the reduced motor claims cost compared to other classes of insurance. The drop in motor claims was as a result of the cessation of movement, curfews and lockdowns that were imposed by the Kenyan government in 2020 (IRA Report, 2020).

Table 1.1: Trend in Industry’s Net Incurred Claims Ratio

Year	2014	2015	2016	2017	2018	2019	2020
Net Incurred Claims Ratio (%)	60.9	61.7	62.7	61.5	62.5	64.2	63.6

Source: IRA (2020)

Globally, COVID-19 has had unfortunate consequences on the insurance companies with a surge in insurance claims especially in the health and life insurance classes; this is as a result of heightened mortality, medical care and hospitalization (Babuna *et al.*, 2020). Insurance fraud is also a major issue that has led to inflated claims that perennially burden insurers (Chepkoech & Rotich, 2017).

Natural and man-made catastrophes have rocked the insurance sector in 2018. The occurrence of 3 hurricanes, Harvey, Irma and Maria has caused a loss estimated at USD 92 billion (EY, 2018). Tornadoes, storms and the Mexican wildfire have also substantially impacted the global insurance market (OECD, 2018). Over USD 81 billion has been paid out in form of claims in 2018 compared to annual average of USD 71 billion in 2017 (Sigma 3 Report, 2019).

Leverage is the incorporation of borrowed funds into the firm’s capital structure with the expectation that the income generated from the external financing will be higher than the cost of borrowing (Taye, 2018). Olalekan (2018) explains that when leverage is employed, two possible outcomes are likely to be witnessed; maximization of profits therefore improving an underwriter’s ability to perform better financially or minimization of profits thus putting the

insurance firm at risk of high debt, inability to pay creditors and ultimately bankruptcy. According to Charumathi (2012) the capital structure of insurance firms is slightly different from other firms that produce tangible products. Insurers get funds from investors, corporate debt holders and policyholders in order to offer their risk management services.

The researcher used the total-debt-to-total-asset-ratio to analyse the extent to which an insurance company utilized borrowed funds. The ratio indicates the quantity of total-assets that have been financed by creditors (Kripa & Ajasllari, 2016). It is a quick and easy tool for ascertaining the amount of borrowed funds that finances an underwriter’s operations. It is also helpful in understanding the risk associated with exposure to a sore in interest rates or insolvency (Charumathi, 2012).

Table 1.2 illustrates the total-debt-to-total-asset-ratio for Kenyan insurers from the year 2014 to 2020. The values indicate that the total industry assets are greater than liabilities since they are all less than 1. The ratio is gradually rising which reflects an escalation in the employment of borrowed funds. A total-debt-to-total-asset ratio above 0.6 could generally be considered poor since, the risk of not being able to generate enough revenue to service the debt is greater as the ratio moves closer to 1 (Olaosebikan, 2013).

Table 1.2: Trend in In Industry’s Debt to Asset Ratio

YEAR	2014	2015	2016	2017	2018	2019	2020
Total-Debt-to-Total-Asset-Ratio	0.734	0.737	0.746	0.751	0.746	0.758	0.771

Source: IRA (2020)

Globally, the Sigma 3 Report (2019) indicates a cut in corporate leverage by highly leveraged multinational firms due to their engagement in the process of debt restructuring with their banks. Ngunguni *et al.* (2020) reveals that the reason for the slump in leverage stems from the rising

number of insurance firms exposed to insolvency risk arising from an incapability to pay their creditors.

A premium is an amount paid to an insurer by a policy holder in exchange for covering a risk over a specified time frame (Burca & Batrinca, 2014). Premium growth is the rate at which insurance premium changes from one year to the next (Taye, 2018). According to Ajao & Eghosa (2018) Premium growth can be used to measure the level of insurance penetration in a country. The researcher incorporated the premium-growth-ratio to analyse the rate at which the total insurance premiums changed from one year to the next. Insurance firms that have higher premium-growth-ratios and lower incurred-claims-ratios may perform better than firms with lower premium-growth-ratios and higher incurred-claims-ratios; because they are generating more underwriting income than claims payouts (Islam & Layth, 2020).

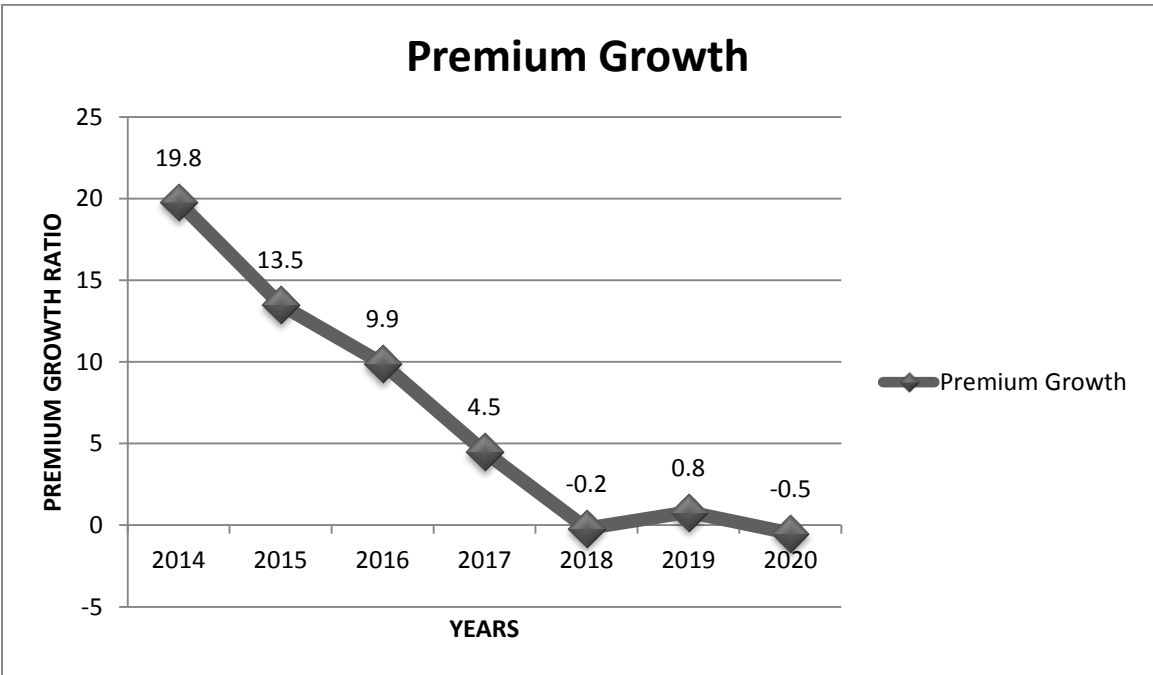


Figure 1.2: Trend in Industry’s Premium Growth Ratio

Source: IRA (2020)

Figure 1.2 displays the trend in the industry's premium-growth-ratio for the period 2014 to 2020. The insurance industry has been experiencing slow premium growth since 2014 with a -0.02% decline in the growth of net earned premiums being recorded in 2018 and an even lower rate of -0.5 being recorded in 2020. According to Kang'e *et al.* (2020) the slow premium growth is greatly linked to premium rate undercutting by some insurers for the purpose of gaining market share. The premium amount earned by insurers is consequently not ample to cover the attached risk to the underwritten business. This poses the risk of losses to the industry. In March 2020, the Insurance Regulatory Authority began a review of the current premium rates so as to boost the underwriting cost of insurers (IRA Report, 2020). Shawar & Danish (2019) state that a slow premium growth rate is indicative of a slow insurance penetration, therefore the sector's input into the nation's GDP is sub-optimal.

Globally, the COVID-19 pandemic has eventuated in a decline in premium growth; this is due to a diminishing demand in insurance products, redundancies and salary pay cuts that have affected pension and life insurance (Babuna *et al.*, 2020). Emerging economies specifically Asia have continued to be the major drivers of premium growth (EY, 2018). The year 2018 witnessed 7.1% growth in premiums from emerging economies. Emerging Asia posted 11% growth in premiums while China registered 12% growth. Premiums in emerging Europe also grew by 4.2% within the same year. Middle East and Africa have experienced a decline in total premiums by 1.3% (OECD, 2018).

Liquidity is the ease with which assets of a business can be promptly converted into cash and at the least cost in order to meet the firm's immediate obligations (Taye, 2018). Having an adequate amount of cash allows the firm to pay their daily expenses like salaries, marketing, distribution and taxes (Mwangi & Murigu, 2015). Sudden unexpected liquidity needs that arise from

contingency conditions may expose a firm to a liquidity risk (Olalekan, 2018). Liquidity risk arises when an insurer has insufficient liquid assets to payout claims. There could be a maturity mismatch between the inflow and outflow of cash in the company (Ologbenla, 2018).

According to Taye (2018) the uncertainty of future cash flows requires an organization to have enough cash as a safety margin in times of a financial crisis. The study employed the current-ratio; which is a ratio of total-current-assets-to-total-current-liabilities, to analyse the level of liquidity of insurers. Calculation of the current-ratio creates a safety net that absorbs disruptions in the cash conversion cycle while also allowing the firm to meet its obligations on time.

Table 1.3 displays the trend in the combined industry’s current-ratio from 2014 to 2020. The values indicate that Kenyan insurers’ liquidity levels are quite low. A current-ratio of less than 1.0 to 1.5 would suggest that a business is not able to pay its creditors. According to Yuvaraj & Ayele (2013) a current-ratio of 1.7 to 2.0 is an adequate level of liquidity since it would suggest that a business has enough funds to pay creditors on time but also there is no excess finance tied up in current assets.

Table 1.3: Trend in The Total Industry’s Current Ratio

Year	2014	2015	2016	2017	2018	2019	2020
Current-Ratio	1.15	1.18	1.18	1.43	1.23	1.28	1.35

Source: IRA (2020)

Globally, Sigma 3 Report (2019) indicates that there has been a rising appetite by multinational insurance agencies to hold less cash and liquid assets due to their high maintenance cost that stems from low interest rates and fluctuating market conditions. The multinationals are thus engaging in reconfiguration of their investment portfolios to suit their needs.

Firm age refers to the time span in years that an insurance company has conducted business since the time of its incorporation and licensing (Ajao & Eghosa, 2018). According to Kange *et al.* (2020) older firms possess more experience and greater resource capacity to hire highly skilled employees and expand firm operations. Gunu & Ademade (2015) indicate that older firms have better relationships with financial institutions hence can access credit faster than younger firms.

Reputation and brand visibility also gives older firms a competitive advantage over newer firms. Taye (2018) however reveals that older firms are less flexible than younger ones due to their systems of bureaucracy. Their culture and routines may hinder the implementation of change that is necessary within the fluctuating market environment (Kange *et al.*, 2020). The researcher proxied firm age by the use of the logarithm of firm age.

According to IRA Report (2019) the highest performing insurance company that recorded a PBT of KES 1,467,017,000 in 2018 was Jubilee Insurance which was incorporated in 1937 while the lowest performing insurance company that recorded a PBT of KES (504,134,000) was Resolution Insurance which was incorporated in the year 2002. Resolution Insurance is relatively younger than Jubilee Insurance and the PBT amounts indicate that insurers who have been engaging in underwriting policies for a long period outperform younger insurers because they possess the benefit of acquired knowledge and have overcome the risks that newer firms are exposed to (Taye, 2018). Globally, older multinational firms are finding new ways to incorporate technology in order to cut back on costs and boost efficiency (Sigma 3 Report, 2019). There has been a surge in the number of innovative covers that are been offered by older insurers due to their ability to sustain such new ventures (EY, 2018).

1.1.3 Insurance Industry in Kenya

According to the KPMG (2016) Kenya has the most vibrant and competitive insurance industry within the East Africa region. Since 2015 Nairobi city county has accounted for the highest numbers of written premiums in the country. Distribution of Insurance takes place via agents, brokers or insurance firms. According to the IRA Report (2018) “insurance business is classified into long-term insurance business and general-insurance business. Long-term insurance is classified into: pensions, life assurances, group life, group credit, annuities and investments. General-insurance is classified into: aviation, engineering, fire domestic, fire industrial, liability, marine, motor, personal accident, theft, workmen’s compensation, medical and miscellaneous”.

According to the Kenyan insurance Act Section 184, the following have been authorized to transact insurance business by the Kenya Commissioner of Insurance: “56 insurance companies, 5 reinsurance companies, 215 insurance brokers, 14 reinsurance brokers, 31 providers of medical insurance, 6 insurance claims settling agents, 128 insurance investigators, 31 insurance loss adjusters, 35 insurance surveyors, 122 motor assessors, 10 risk managers and 8612 insurance agents” (IRA Report, 2020). In 2006, a statutory government agency known as the Insurance Regulatory Authority was formed so as to govern, register and license underwriters ultimately to create a synergy that drives the growth and development of the industry. In 1987, a self-regulating body for insurers named The Association of Kenya Insurers (AKI) was formed for advisory and consultative purposes (Kiptoo, *et al.*, 2021).

1.2 Statement of the Problem

There has been a decline in how Kenyan insurers have been performing financially as evidenced by the perennial underwriting losses recorded since 2015 (Morara & Sibindi, 2021). “The years 2015, 2016, 2017, 2018, 2019 and 2020 saw the sector record underwriting losses of KES

(226,281), KES (2.1) billion, KES (1) billion, KES (2.6) billion, KES (3.2) billion and KES (1.2) billion respectively” (IRA Report, 2020). Allianz Insurance, Cannon Insurance, First Assurance, Invesco Assurance, Resolution General Insurance and Trident Insurance, have consistently recorded losses since 2015. Invesco Assurance and Amaco Ltd, have been unable to pay off their debts which has given rise to their liquidation bids from various stakeholders (Kamau *et al.*, 2021). Ngunguni *et al.* (2020) indicates that aviation, fire domestic, motor private, motor commercial and medical insurance classes have recorded losses since 2015 and as at 31st December 2018 they posted annual losses of KES (159,479,000), KES (275,853,000), KES (2.6) billion, KES (873,562) and KES (1.1) billion respectively. The total industry’s ROA ratios have also been declining since 2015; the years 2014, 2015, 2016, 2017, 2018, 2019 and 2020 recorded ROA values of 5.5, 3.8, 3.6, 3.2, 2.39, 2.3 and 1.75 respectively (Kiptoo *et al.*, 2021). The depressed ROA signifies a weakening financial performance that has negatively affected insurer’s ability to mitigate risks and impedes the attainment of the Medium-Term Plan III economic objectives and the Big Four Agenda and ultimately the Vision 2030.

“Loss of consumer trust has led to low insurance sales and the industry’s input to the nation’s GDP has ultimately dropped from a high of 3.4% in 2013 to 2.88%, 2.75%, 2.71%, 2.68%, 2.43%, 2.34% and 2.31% in 2014, 2015, 2016, 2017, 2018, 2019 and 2020 respectively” (Kamau *et al.*, 2021). The persistent losses recorded by the Kenyan insurance industry has eventuated in an increased scholarly attention on insurers’ financial performance. A thorough scrutiny of previous literature however reveals several gaps. Firstly, previous studies exhibit inconsistent findings in the association between firm characteristics and insurer’s financial performance: (Kiptoo *et al.*, 2021; Ngunguni *et al.*, 2020) found liquidity to be positive and significant to insurer’s financial performance; (Kamau *et al.*, 2021; Yuvaraj & Ayele, 2013) found liquidity to

be negative and significant to insurer's financial performance; (Gonga & Sasaka, 2017; Mwangi & Murigu, 2015) however found liquidity to be insignificant to insurer's financial performance. In addition, the researcher found no recent studies that offer an insight on how the COVID-19 pandemic has affected Kenyan insurers. (Kamau *et al.*, 2021; Too & Simiyu, 2018) only capture data from pre-COVID period. Studies by (Msomi & Nyide, 2021; Ngunguni *et al.*, 2020; Too & Simiyu, 2018) only focused on the financial performance of general insurers while (Wani & Dar, 2015; Akotey, Sackey, Amoah & Manso, 2013; Bawa & Chattha, 2013) focused on the financial performance of life insurers. In addition (Ngunguni *et al.*, 2020; Korir, 2020; Mwangi & Iraya, 2014) collected population samples which may have been prone to biases from the sampling frame and techniques used and may have led to inaccurate findings, erroneous conclusions and non-generalizability of results to the entire study population. The inconsistent findings, lack of recent scholarly literature that offers variable trends during the COVID-19 pandemic period and the non-generalizability of the findings from researchers who collected biased population samples and those who only studied one type of insurance business therefore motivated the researcher to study the effect of firm characteristics on the financial performance of insurance companies in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The study's main objective geared to investigate the effect of firm characteristics on the financial performance of insurance companies in Kenya.

1.3.2 Specific Objectives

1. To determine the effect of incurred claims on the financial performance of insurance companies in Kenya.

2. To establish the effect of leverage on the financial performance of insurance companies in Kenya.
3. To determine the effect of premium growth on the financial performance of insurance companies in Kenya.
4. To establish the effect of liquidity on the financial performance of insurance companies in Kenya.
5. To determine the effect of firm age on the financial performance of insurance companies in Kenya.

1.4 Research Hypothesis

H₀₁: Incurred claims have no significant effect on the financial performance of insurance companies in Kenya.

H₀₂: Leverage has no significant effect on the financial performance of insurance companies in Kenya.

H₀₃: Premium growth has no significant effect on the financial performance of insurance companies in Kenya.

H₀₄: Liquidity has no significant effect on the financial performance of insurance companies in Kenya.

H₀₅: Firm Age has no significant effect on the financial performance of insurance companies in Kenya.

1.5 Significance of the Study

Kenya's underwriting sector is crucial to the prosperity of the financial industry and the economy as a whole. The study will therefore add value to a number of stakeholders in the sector. The findings can provide insight to the Kenyan government, legislators, Association of Kenya Insurers and the Insurance Regulatory Authority on information that could influence the

formulation of new policies that may eventuate in a prosperous insurance industry; consequently achieving all objectives set in the Third Medium Term Plan 2018-2022, the Big Four agenda and the Vision 2030.

The findings present insurance managers with ways of achieving better financial control and proper planning of their resources as they strive to make more informed strategic decisions hence yielding a boost in financial performance and ensuring that shareholders' returns are maximized. The study will be beneficial to investors of mutual and stock insurance companies since it will provide an insight as to how the proper management of firm characteristics can lead to better financial performance and consequently the maximization of shareholders' wealth.

Potential policy holders will also have a better understanding of how the ability of an insurer to perform better financially compared to others is critical when deciding whether or not to take out policies with that specific insurer. The study augments the already existing scholarly work in the field of finance and insurance. It also provides a basis and a point of reference for future scholars and researchers who wish to get clarity on how incurred claims, leverage, premium growth, liquidity and firm age affect the way Kenyan insurers perform financially.

1.6 Scope of the Study

The focus was on firm characteristics and Kenyan insurers' financial performance. Firm characteristics that were studied were incurred claims, leverage, premium growth, liquidity and firm age. Information on the 5 variables was derived from audited annual financial statements (balance sheet and the profit & loss accounts) which were readily and easily accessed from the Insurance Regulatory Authority. All the 56 insurance companies in Kenya that are by law incorporated in accordance to the companies' Act and also possess a license from the IRA in

accordance to the Insurance Act from the year 2015 to 2020 as seen in Appendix II, were part of the study. The 6-year period of study was appropriate since the downward trend in the financial performance of Kenyan insurers was from the year 2015 to 2020 and the audited financial statements for the years were easily obtained from the Insurance Regulatory Authority website.

1.7 Limitation of the Study

There was a reliance by the researcher on secondary data from the IRA website; the study however noted that there were missing financial statements for Phoenix of East Africa and Cannon Assurance Company from 2018 to 2020. The researcher later discovered that the 2 underwriters had changed their names from Phoenix of East Africa to MUA Insurance (Kenya) Limited; and from Cannon Assurance Company to Metropolitan Cannon General Insurance Limited. The missing financial statements were therefore retrieved and included in the study.

The researcher also encountered missing PBT and incurred claims entries from First Assurance Company, Madison Insurance Company and The Monarch Insurance for the years 2015, 2016, 2017 and 2018. The missing entries were however availed upon request and they were included in the study. There were however missing financial statements that the researcher could not retrieve from: Gateway Insurance Co., Invesco Assurance Co., Jubilee Health Insurance Co., Real Insurance Co., Sanlam General Insurance and Mercantile Insurance Co.. The researcher therefore made a decision not to include the data that was missing from the 6 insurance underwriters so as to avoid any complication that may arise during data analysis that may ultimately give rise to biases in the estimates and invalid conclusions.

1.8 Organization of the Study

Arrangement of the study included: the background, study objectives, importance of conducting the research, scope and study limitations which are all presented in the first chapter. The second chapter encompasses the theoretical and literature review on firm characteristics and financial performance of insurance companies, followed by the conceptual framework. Strategy for conducting the research is given in the third chapter. The fourth chapter presents data analysis, empirical outcome, interpretation of results and discussion of study findings. The fifth chapter contains a synopsis of research outcome with reference to study objectives, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter embodies the discussion of different theories that are appropriate for the study. Review of relevant literature from past studies is done and the researcher identifies research gaps that have arisen. A conceptual framework is drawn so as to give a diagrammatic representation of the relationship between incurred claims, leverage, premium growth, liquidity, firm age and insurer's financial performance.

2.2 Theoretical Review

The researcher reviewed the following theories: the transaction cost theory of the firm, the trade-off theory, the agency theory, liquidity preference theory and the resource-based theory. The theories aimed to show the relationship between incurred claims, leverage, premium growth, liquidity, firm age and how insurers performed financially.

2.2.1 Transaction Cost Theory of the Firm

This theory was the brainchild of Coase (1937). It seeks to explain the nature, existence and the relationship of the firm to the market. The transaction cost theory is a theory under the theory of the firm that assumes that individuals commence to organise their production activities into firms in order to take advantage of lower transaction costs. The author explains that transaction costs can be lowered by discovering important prices that can be reduced and also by engaging in contractual agreements for each transaction. The theory further argues that the size of a firm may get bigger or smaller depending on the organisation of the transactions, cost of using price mechanisms and organisation costs of other entrepreneurs.

The theory fails to recognize other modern ways of cost minimization such as cutting down on advertising costs through the use of social media platforms which are free to install and also have diverse groups of audiences. The idea that a firm has to have a physical presence in order to cut down on costs is also outdated. This is because a majority of companies engage in online transactions that have proven to be cheaper than opening up actual stores.

The association between incurred claims and insurers' financial performance can be explained by the transaction cost theory where as insurance firms grow, so does the number of policyholders and also the amount of claims to be settled. Claims settlements are costs incurred in the normal running of an insurance business. If the amount of claims is more than the premiums earned, it will hinder the ability of an insurer to make an improvement in their financial performance. Insurers therefore engage in insurance contracts with policy holders so as to clearly identify the circumstances that would result in payment of an insurance claim. Proper claims management should therefore be undertaken so as to lessen the incidence of fraud and inflated claims and lower the cost of settling claims, ultimately improving the ability of an insurer to perform better financially.

2.2.2 Trade off Theory

Modgiliani & Miller (1958) introduced this theory which assumes that as leverage increases, a trade-off is witnessed between bankruptcy and tax shield. This therefore yields a company's optimum capital structure. The organization therefore has to find a balance of the costs and benefits between debt financing and equity financing. The theory further assumes that beyond the optimum capital structure, any further debt financing weakens the marginal benefit. Any change in the debt-to-equity ratio will consequently have an effect on the weighted average cost of capital.

The theory's assumption of a positive relationship between returns and debt incorporation, is not always the case since there is a risk of bankruptcy and non-bankruptcy costs in the event that the firm is unable to repay its debt or if the investments do not yield more than the cost of debt which would hinder an insurer from performing better financially.

The association between leverage and insurer's financial performance can be explained by the trade-off theory. Debt comes with a tax-shield on interest to be paid and can ultimately be cheaper than equity capital. This may in turn encourage managers to generate higher returns than the cost of debt thus improving an underwriter's potential to perform better financially.

2.2.3 Agency Theory

Jensen & Meckling (1976) advanced this theory that assumes that asymmetry of information between the firm's owners and the company's management, gives rise to agency costs. Asymmetry of information occurs when the managers possess more information than the owners. The authors refer to the firm's owners as principals and the managers as agents and they further explain that a principal-agent dilemma arises when the agent is given the authority by the principal to act on their behalf and make decisions with regards to the running of the organisation.

The dilemma is fuelled by the motivation of the agent to act in their own selfish interests instead of pursuing the interests of the shareholders. This thus gives rise to agency-costs that come about due to agents engaging in costly activities such as expansion of the business, hence disregarding profits in the short run. Although this decision might prove to be beneficial in the long-run, the principal who desires high earnings may be unaware of the situation. The more an organisation grows, the harder it is to control the management's actions. Consequently, introduction of

contracts between the principal and agent to ensure that the managerial skills and talents are utilized for the benefit of the shareholders is necessary.

The theory focuses purely on the relationship between the managers and shareholders and does not include other key stakeholders. For instance, the relationship between the policyholders and insurance agents is important since it yields transactions in form of insurance contracts in exchange for underwriting premium – which is an important source of revenue for insurers. Insurance agents should therefore conduct themselves in a manner that encourages the policyholders to remain loyal to the insurance firm.

The connection between premium growth and insurer's financial performance can be explained by the agency theory where agents act on behalf of the principal and make a decision to expand operations and increase policyholders. As a result, agency-costs arise and the financial performance may be negatively affected. When managers decide to solely concentrate on rapid growth of insurance premiums, other important objectives may be ignored such as expense minimization and customer satisfaction and this could hinder the ability of an insurer to improve their financial performance. As the collection of premiums surges, so does the probability of risk bearing. Hence, an elevation in the amount of premiums does not always automatically translate to a boost in profits.

2.2.4 Liquidity Preference Theory

John Maynard Keynes (1936) introduced this theory in a book that described the demand for liquidity in terms of three motives: the precautionary motive, where individuals hold cash or other liquid assets as a safety net in case of emergencies or hard financial times; the speculative motive, where individuals hold more cash when interest rates are low with the expectation that

the rates will eventually rise. Individuals may also prefer to increase their level of liquidity due to a transaction motive where sufficient cash allows them to pay salaries, taxes and short-term creditors without delay.

The theory's assumption that holding more cash and liquid assets translates to improved performance is not always the case since managers may misuse the cash for their own selfish motives and completely disregard the shareholder's main objective of profit maximization. This may escalate the operational costs thus impeding the ability of an insurer to perform better financially.

The link between liquidity and how an insurer performs financially can be explained by the liquidity preference theory where more liquid firms can outperform less liquid ones due to their ability to withstand a financial crisis. Holding cash and liquid assets for precautionary motive acts as a safety net and allows managers to continue making daily payments such as salaries and immediate obligations as they fall due. Holding cash for speculative motive gives a fair advantage to insurers just in case bonds and securities' prices change.

2.2.5 The Resource-Based Theory

The theory of the firm by Barney (1991) looks into the company's ability to acquire a sustainable competitive power via management of available resources. The result of which should be difficult to imitate by competitors consequently creating a sustainable competitive advantage.

The theory holds that in order for a firm to achieve a high performance, the management should identify the unique resources which must meet the following criteria: they should be of substantial worth, scarce, difficult to copy and not easy to replace.

The applicability of the theory is too limited since the value of resources depends on their scarcity, inability to be substituted and also inability to be replicated. The theory also fails to mention that there are other easily available resources that a firm can effectively and efficiently utilize in order to achieve a competitive advantage.

The link between firm age and how an insurer performs financially can be explained by the resource-based theory where age is viewed as a variable that allows a firm to acquire unique capabilities that enable the exploitation of transient advantage. Older firms have the benefit of learning and experience and can achieve a sustainable competitive edge via the management of resources that are: scarce, not easy to replace and difficult for competitors to copy. Therefore, in order for a firm to sustain a good financial performance in the long run, it is important to develop dynamic capabilities so as to adapt to the changing market environment.

2.3 Empirical Review

2.3.1 Effect of Incurred Claims on Financial Performance

An examination of the impact of incurred claims on Indonesian insurers' financial health by Angga *et al.* (2020) demonstrated an inverse association between incurred claims ratio and financial performance. The panel data regression method used for analysis revealed that incurred claims had a significant impact on underwriters' financial health. Similar results were achieved by Putra (2017) who indicated that poor risk management practices led to higher amounts of claims thus hindering the generation of underwriting income eventuating in unfavourable consequences on insurers' financial performance. The findings support the transaction cost theory that suggests that firms are formed in order to diminish costs and expand profits by taking advantage of economies of scale. Therefore, if the amount of money that is lost by an insurer in form of claims surges, an inverse relationship may arise between incurred claims ratio and

financial performance. The study above only included nine underwriters listed in the Indonesian Stock Exchange out of the 72 registered insurance firms in Indonesia. Any biases that may have occurred due to the sampling frame or techniques could lead to inaccurate findings hence the current study avoided this bias by taking into account all Kenyan insurers that were incorporated in accordance to the companies' Act and also possessed a license from IRA as per the requirements of the Insurance Act. This is because the population was not large therefore a census study would give a more accurate representation of findings.

Analysis of determinants of insurers' financial fitness in Pakistan was conducted by Shawar & Danish (2019). The panel regression model employed produced an insignificant association between incurred claims and insurer's financial performance. Similar results were achieved by Olalekan (2018) who revealed that despite the negligible connection between the two variables, incurred claims ratio was commonly used as a measure of underwriting risk by insurers. This is because excessive risk taking could be detrimental to how insurers perform financially most notably in the event of any unforeseen shifts in the insurance market; in the form of rapid escalation in industrial rivalry, and a notable plunge in share prices. Insurers may be unable to improve their annual premiums leading to an inability to compensate for losses arising from risks that were poorly priced. The above study did not include liquidity as one of the study variables despite the fact that the study was based on insurers who are financial firms that deal with the protection of policyholders and should therefore maintain an adequate level of liquidity for the purpose of making claims settlements as they fall due; hence the current research included liquidity as an independent variable so as to establish its association with insurer's financial performance.

Incurred claims ratio was established to be positive and significant to insurer's financial performance in a study that was conducted by Dey, Adhikari & Bardhan (2015). The aim of the employed multiple linear regression model was to analyse the predictors of Indian insurance firms' financial well-being. Similar results were achieved Ahmed & Usman (2011) who explained that managers of insurers often engaged in underwriting risky business, thus were given more decision-making discretion which subsequently motivated them to generate more cash flow ultimately strengthening how an insurer performs financially. The product of the analysis contradicts the transaction cost theory that assumes that costs should be slashed and revenues multiplied in order to improve the lucrativeness of a business which thus signifies the presence of an inverse link between incurred claims and insurer's financial performance. The study above employed ROE as a proxy for insurers' financial performance which can be quite misleading in the event that a firm relies heavily on debt rather than equity thus temporarily boosting the ROE and therefore the current research employed ROA since it is commonly preferred by most researchers in the insurance field, due to the fact that it is not affected by the management's decision to use debt to finance activities of the firm.

2.3.2 Effect of Leverage on Financial Performance

Kamau *et al.* (2021) concluded that an inverse association was exhibited between leverage and insurers' financial performance in a study that was geared towards the evaluation of the determinants of underwriter's financial soundness in Kenya. The unbalanced panel data analysis used revealed that leverage was significant to how insurers' performed financially. Similar results were achieved by Olalekan (2018) who indicated that insurers should engage in proper management of their liabilities so as to shrink the risk of insolvency. The findings support the trade-off theory that suggests that a firm's worth diminishes when the debt level is intensified

beyond its optimum. Managers may ultimately be unable to pay off the debt thus exposing the firm to bankruptcy risk. The study above did not include premium growth as a study variable despite the fact it is a source of income for insurers and any strategies aimed at elevating the premium income may potentially strengthen the underwriting profits and ultimately improve how they perform financially; hence why the current study included premium growth since revenue generated from premium income is important as it is also set aside as premium reserves in order to make claims pay outs as they fall due.

An evaluation of the determinants of insurers' financial robustness in Ethiopian was undertaken by Berhe & Kaur (2017). The fixed effect model used for analysis revealed that leverage was insignificant to how insurers performed financially. Similar results were found by Ajao & Eghosa (2018) who concluded that any expansion or contraction in leverage did not eventuate in a subsequent rise or drop in how insurers performed financially. The outcome did not support the trade-off theory that assumes that when leverage is employed, two possible outcomes are likely to be witnessed; boosting of profits therefore improving the insurer's ability to perform better financially; or curtailing of profits thus putting the underwriter at risk of high debt, inability to pay creditors and ultimately bankruptcy. The study above measured leverage by the debt-to-equity- ratio which can be misleading when it is low and instead of signifying low risk it may actually arise due inadequate financing of assets with the acquired debt; thus the current study used the total-debt-to-total-asset ratio which unlike the debt-to-equity-ratio also factored in intangibles, transient assets and dues.

An assessment of the financial health determinants of Kenyan insurers was conducted by Mwangi & Murigu (2015). The multiple linear regression model employed in the research established that leverage positive and significant to how insurer's performed financially. Similar

results were achieved by Almajali, Alamaro & Al-Soub (2012) who suggested that underwriters who incorporated high levels of debt into their capital structure, witnessed an improvement in their ability to perform better financially since their managers were obligated to generate higher financial inflow, for the sake of meeting their cost of debt. The findings support the trade-off theory that suggests that at optimal levels of debt, cost of capital is reduced and the underwriter's worth is strengthened hence improving their financial performance. The study above only analysed 22 general insurers out of a total of 56 insurance firms; this had the potential of non-generalization to the entire population due a bias in sampling technique that could result in erroneous conclusions; hence the current study avoided this bias by conducting a census of all the general, life and composite insurers in Kenya since all classes of insurance business use the same measures of financial performance and the income generated by them is also measured in the same way.

2.3.3 Effect of Premium Growth on Financial Performance

A descriptive study conducted by Ajao & Eghosa (2018) on factors that impact how Nigerian underwriters perform financially, indicated that premium growth was insignificant to insurer's financial performance. The panel least square technique employed revealed that the association between the two variables was negligible. Similar findings were achieved by Derbali (2014) who explained that any growth or weakening of earned premiums would have an inconsequential influence on how an insurer performs financially. The product of the study does not support the agency theory which suggests that certain decisions made by the firm's management to encourage the rapid growth of insurance premium may elevate the underwriting risk and may create a need to raise the technical reserves volume. Overly focusing on premium growth and disregarding other areas such as customer satisfaction and expense reduction, could ultimately

diminish how an insurer performs financially. The above study did not include incurred claims as one of the study variables despite it being an important cost that should not rise beyond the premium income; hence the current study included incurred claims since it measures the underwriting risk of an insurer and firms that engage in underwriting risky business tend to have more volatile cash-flow than risk averse organizations; such firms could suffer huge losses in the event that a catastrophe occurs which could have detrimental effects on their potential to perform better financially.

An investigation into factors that affect how Kenyan insurers perform financially by Gongga & Sasaka (2017) revealed that premium growth was positively associated to insurer's financial performance. The bivariate ANOVA statistical data analytical technique determined that premium growth was significant to how an insurer performed financially. Similar results were achieved by Kanbiro & Ayneshet (2019) who concluded that insurers that underwrote more premiums annually, had a higher likelihood of boosting their profits if they earned higher income from the collected premiums than from funds lost through claims. The findings of the study do not concur with the agency theory which assumes that the decision of managers to solely concentrate on the rapid growth of insurance premiums and completely ignore other important objectives such as expense minimization and customer satisfaction may diminish an insurer's potential to perform better financially. Therefore a surge in premium collection elevates the probability of risk bearing which does not automatically translate to an escalation in profits. The study above did not consider incurred claims as a variable in the study even though it is an integral cost incurred by an insurer and could take up to 80% of the annual premiums earned; hence the current study included incurred claims as one of the variables that influence how an insurer performs financially since in the event that the amount of claims incurred exceeds the

premium income, the insurer will suffer a loss and consequently the financial performance will be unfavourably impacted.

An empirical study carried out by Daare (2016) found an inverse association between premium growth and insurer's financial performance. Main objective was to distinguish elements that impact how Indian underwriters perform financially. A multiple linear regression model employed revealed that premium growth was significant to insurer's financial performance. Similar results were achieved by Burca & Batrinca (2014) who explain that solely focusing on the rapid growth of insurer's premiums and completely ignoring important objectives such as expense minimization could hinder the ability of an insurer to strengthen their ability to perform better financially. Results of the above study support the agency theory that suggests that managers who overly focus on the rapid growth of insurance premiums, may end up intensifying the underwriting risk which could lead to a surge in the technical reserves. Higher technical reserves could result in an opportunity cost to an insurer since investment funds are diminished. Depletion in reserves could free up more funds for lucrative investment which can eventually strengthen an insurer's financial performance. The study above conducted purposive sampling of the study population as per the accessibility of data which could have resulted in erroneous findings and conclusions due to biases in the sampling frame; the current research therefore avoided such prejudices by conducting a census of all insurers in Kenya since the population size was not large and data was readily available for all the insurance companies.

2.3.4 Effect of Liquidity on Financial Performance

A study by Ngunguni *et al.* (2020) on the factors influencing how Kenyan insurers perform financially yielded a positive association between liquidity and financial performance. Hypothesis testing which was done via multiple linear regression model revealed that the two

variables had a significant association. A similar outcome was achieved by Kiptoo *et al.* (2021) who explains that firms who held more cash and liquid assets were able to pay out claims and short-term debts as they fall they due. Results of the study are in agreement with the liquidity preference theory which assumes that managers prefer to hold more cash and liquid assets to finance operations, investments and also to cope with financial adversities. These firms thus outperform firms that hold less cash and liquid assets. The above study did not include leverage as a study variable even though it is common for insurers to employ debt into their capital structure which may improve the way they perform financially if the returns yielded are greater than the cost of debt; the current study did include leverage as part of the study variables; this is because if a company fails to pay off its debt, it runs the risk of going into bankruptcy.

Liquidity was ascertained to be insignificant to insurers' financial performance by Anam & Abdullah (2019) in a study on the determinants of USA and UK underwriter's financial health. The pooled OLS model employed for analysis revealed that any rise or plunge in liquidity had little to no impact on how insurers performed financially. Similar results were achieved by (Gonga & Sasaka, 2017). The product of the analysis do not support the liquidity preference theory that assumes that more liquid firms will outperform less liquid ones since they will hold cash in case of emergencies or hard financial times. The study above was conducted in two developed economies, USA and UK during the global financial crisis of 2007 to 2016. The insurance industry in developed economies is more advanced than that of emerging economies since their penetration rates are much higher owing to the fact that a number of government policies make it compulsory for citizens to have a variety of insurance policies that cover incidences such as fire break out and snake attacks (as in the state of California, U.S); the current study however focused on Kenya, which is a third world economy with lower penetrations rates

that arise from reluctant citizens who do not see the value of insurance covers unless it's motor vehicle or medical.

Yuvaraj & Ayele (2013) conducted a descriptive study on insurers' profitability in Ethiopia. Analysis via a panel regression model revealed that liquidity was negative and significant to insurer's financial performance. Similar results were achieved by Adams & Buckle (2003) who noted that higher liquidity ratios were an indication that more funds were held up in form of current assets instead of in lucrative investments; thus firms with lower liquidity ratios were viewed as more profitable than those with higher ones. The findings do not support the liquidity preference theory since there is an assumption that firms should not hold on to cash for either speculative, transaction or precautionary motives but instead channel all extra funds into investments so as to expand profits and improve the financial performance. The study above did not include incurred claims as a study variable that represents a cost that is unavoidable to the insurer, however, the current study included incurred claims since it measures the underwriting risk of an insurer and therefore firms that engage in underwriting risky business tend to have more unstable cash-flow than risk averse organizations. Such firms could suffer huge losses in the event that a catastrophe occurs which could have detrimental effect on an underwriter's potential to perform better financially.

2.3.5 Effect of Firm Age on Financial Performance

A study by Kang'e *et al.*, (2020) sought to make sense of how firm features influence Kenyan insurer's financial fitness. The correlation regression model and ANOVA used for analysis exhibited that firm age was positive and significant to how insurers perform financially. Similar outcome was achieved by Too & Simiyu (2018) who explained that as firms aged, they gained more experience and learning that helped them to deal with the ever-changing market

environment. The findings support the resource-based theory, which in this case assumes that age is a variable that enables a firm to gain unique resources. Firms overtime due to experience, may establish unique resources and competencies that are valuable, not easily imitated and non-substitutable; this can result in a superior competitive edge and an improved financial performance. The above study measured performance in terms of gross weighted premium income which is limited since insurers also get their income from a variety of investments such as government and corporate bonds, listed shares and commercial property; hence why the current study measured financial performance using ROA which incorporates both underwriting income and investment in capital assets whose returns are measured in form of profit.

Gunu & Ademade (2015) ascertained that firm age was negatively associated to financial performance in an examination of factors impacting how Nigerian insurers perform financially. Panel regression analysis employed revealed a strong connection between the two variables. Similar results were achieved by Bilal, Sumaira & Najm (2013) who indicated that firms that have been active for a longer time span are likely to be less flexible and may suffer from bureaucratic issues that arise from same routines and organizational culture. Older firms may therefore lack the agility to cash in the lucrative possibilities in the dynamic market leading to little exploitation of transient power. The findings failed to be in alignment with the resource-based theory, instead implying that as firms age, they could balloon in size leading to the inability to employ the appropriate managerial skills that could result in misallocation of an insurer's unique resources. Diseconomies of scale may consequently arise and a lack of full exploitation of output efficiencies could depress the profits and lower the organization's potential to perform better financially. The above study exempted premium growth as a study variable despite the fact that premium income is an important cashflow that arises from insurance

contracts between the policyholder and the insurance provider; it is therefore an important variable which the current study incorporated since insurance risk management strategies that involve raising the amount of premium income and curtailing the total claims incurred to a level that magnifies the shareholders' wealth; ultimately improving how insurers perform financially.

A study by Almajali *et al.* (2012) drew that firm age was insignificant to insurers' financial performance. The study that was intended to analyse indicators of Jordanian insurers' financial health, applied a multiple linear regression model which indicated that firm age was not a strong determinant of financial performance. Similar results were found by Yuvaraj & Ayele (2013) who explained that managers should focus on other factors that can ensure that the exploitation of resources is done efficiently and effectively thus ensuring longevity of a business and ultimately gaining sustainable competitive power in the long run. Study above did not include incurred claims as a study variable despite it taking up over 80% of the total earned premiums and it measures an insurer's underwriting risk. The current study however included incurred claims since it firms that engage in underwriting risky business tend to have more unpredictable cash-flow than risk-avoiding organizations and as such they could suffer huge losses in the event that a calamity occurs; which could have unfavourable consequences on how insurers perform financially.

2.4 Summary of Literature and Research Gaps

Table 2.1: Summary of Literature and Research Gaps

Researcher	Purpose	Research Gap	How Study Filled the Gap
Kamau <i>et al.</i> (2021)	To analyse factors that affect how Kenyan insurers perform financially.	-Did not include premium growth	-Included premium growth.
Angga (2020)	To examine how claims ratio affects how insurers listed in Indonesian Stock Exchange perform financially.	-Only included underwriters listed in Indonesian Stock - Exchange. -Did not include premium growth as a variable in the study.	-Included all insurance companies. -Included premium growth.
Kang'e <i>et al.</i> (2020)	To assess determinants that influence how Kenyan insurers perform financially.	-Only included health insurers in Kenya. - measured performance in terms of weighted premium income	-Focused on all classes of insurance business. -ROA was the performance measure.
Ngunguni <i>et al.</i> (2020)	To determine factors that affect how Kenyan insurers perform financially.	-Did not include leverage	-Included leverage.
Anam & Abdullah (2019)	To investigate firm characteristics that affect how USA and UK insurers perform financially.	-Study carried out in developed economy.	-Research conducted in a third world economy.
Shawar & Danish (2019)	To assess factors that affect how Pakistan insurers perform financially.	-Did not include liquidity	-Included liquidity.
Ajao & Eghosa (2018)	To investigate firm specific factors that affect how Nigerian insurers perform financially.	-Did not include incurred claims.	-Included incurred claims.
Berhe & Kaur (2017)	To investigate determinants that impact how Ethiopian insurers perform financially.	-leverage proxy was total debt to total equity ratio.	-leverage proxy was total debt to total asset ratio.
Gonga & Sasaka (2017)	Analysis of Kenyan insurers financial health	-Incurred claims not included.	-Incurred claims included.
Daare (2016)	To identify firm features that affect how Indian insurers perform	-Conducted purposive sampling	-Conducted a census of all insurance companies in Kenya.

	financially.		
Dey <i>et al.</i> (2015)	To determine factors that affect how Indian insurers perform financially.	-Only focused on 6 listed underwriters. - financial performance proxy was ROE.	-Focused on all the 56 licensed underwriters. -ROA was a proxy for financial performance.
Gunu & Ademede (2015)	To evaluate firm features that affect how Nigerin insurers perform financially.	-Did not include premium growth.	-Included premium growth.
Mwangi & Murigu (2015)	To assess determinants that influence how Kenyan insurers perform financially.	-Focused on general insurers in Kenya.	-Focused on both general and life insurers in Kenya.
Yuvaraj & Ayele (2013)	To analyse factors that affect how Ethiopian insurers perform financially.	-Did not include incurred claims	-Included incurred claims.
Almajali <i>et al.</i> (2012)	To assess factors that affect how Jordanian insurers perform financially.	Did not include incurred claims	-Included incurred claims.

Source: Author (2022)

2.5 Conceptual Framework

As per reviewed literature, the researcher came up with the following conceptual framework that aimed at diagrammatically identifying the independent and dependent variables and illustrating how they were related.

Independent Variables

Dependent Variable

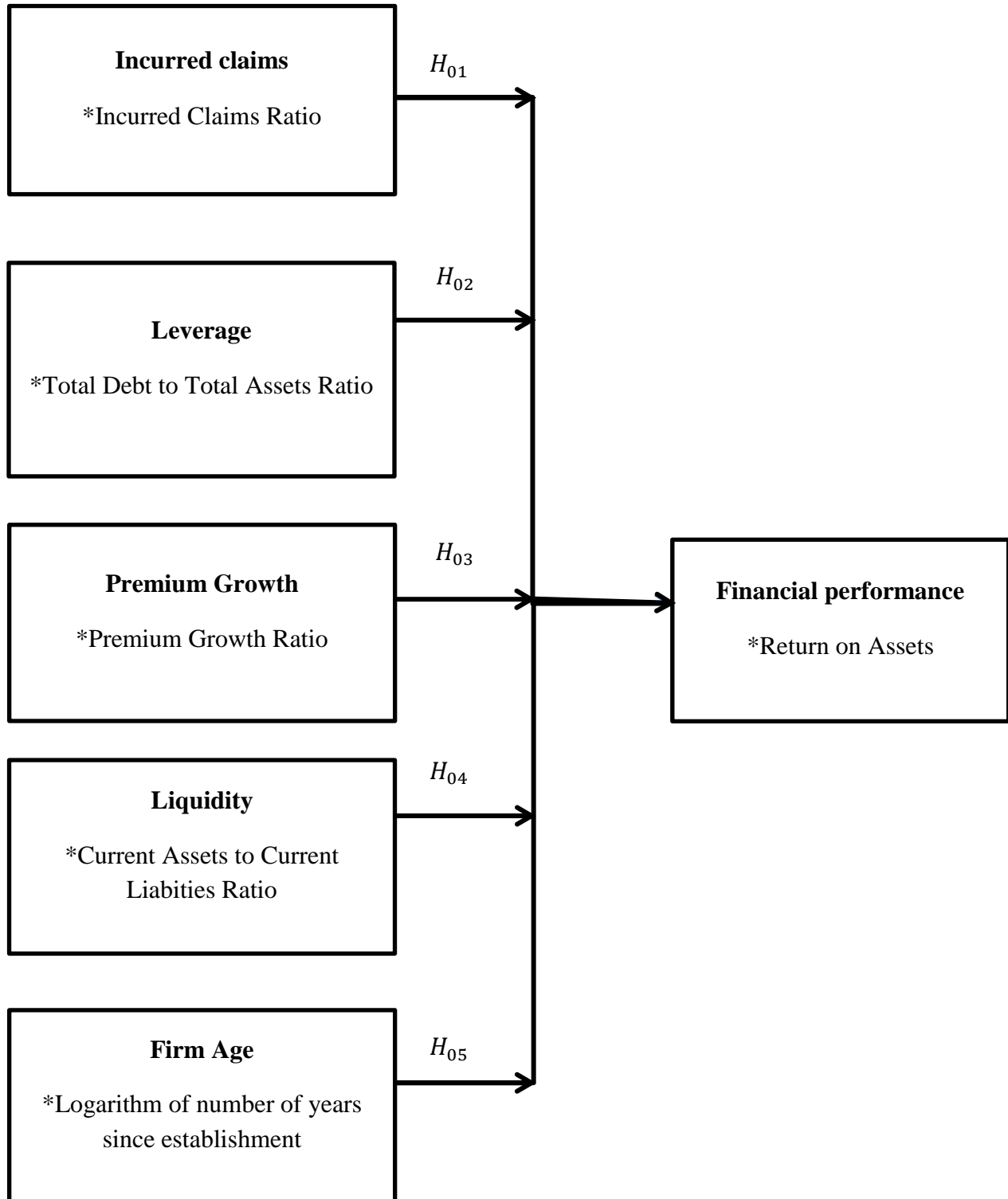


Figure 2.1: Conceptual Framework

Source: Author (2022)

Figure 2.1 reveals that the dependent variable of the study was financial performance; proxied by Return on Assets. Financial performance of insurers was affected by 5 firm characteristics which represented the independent variables of the study and they were: incurred claims - proxied by incurred claims ratio; leverage - proxied by total debt to total asset ratio; premium growth - proxied by premium growth ratio; liquidity - proxied by ratio of total current assets to total current liabilities and firm age - proxied by logarithm of the number of years since the firm's establishment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter comprises of the research design that was employed, the empirical model that was formulated for hypothesis testing, the operationalization and measurement of the variables according to the study, a brief explanation of the target population, the method of determining the subset of the population, the tools for gathering data and the course of action that was undertaken. Finally, the chapter provides the technique that was applied to analyse the data and how the study outcome was presented; which was all in line with study objectives.

3.2 Research Design

A descriptive research design was employed in order to better understand and systematically describe the population characteristics by formulating hypothesis, collection and analysis of data and presentation of findings. The design was appropriate since it assists in identifying trends in the study population, it is also easy to employ, cost effective and not time consuming (Ngunguni *et al.*, 2020).

3.3 Empirical Model

A panel regression model was estimated for purposes of analyzing the association between firm characteristics and financial performance of Kenyan insurers; this is due to the nature of the data which contained both cross-sectional and time-series components. Rather than employing time-series or cross-sectional data individually, it is more beneficial to use panel data (Ologbenla, 2018). Panel data analysis can be used in the analysis of a large sample size that contains data with little collinearity and also, better estimations may be achieved.

For the purpose of analysing the association between firm characteristics and the financial performance of Kenyan insurers, the following independent variables were tested: Incurred claims, leverage, premium growth, liquidity and firm age. The dependent study variable was financial performance of Kenyan insurers. ROA was financial performance's proxy. ROA was a function of the above independent variables.

Hence:

$$ROA = f(CI, LE, PG, LI, FA) \dots \dots \dots (3.3.1)$$

The researcher employed a general panel regression that took the form:

$$Y_{it} = \alpha + \beta'X_{it} + \varepsilon_{it} \dots \dots \dots (3.3.2)$$

The cross-sectional component of the equation was represented by the subscript i while the time series component was represented by subscript t . Y_{it} represented the dependent variable; α represented the constant in the model over time t ; i represented the individual Kenyan insurers. β represented the regression coefficient. X_{it} represented the various dependent variables for the company i at period t . The general form of the panel regression model was then expanded as follows:

$$ROA_{it} = \alpha + \beta_1 CI_{it} + \beta_2 LE_{it} + \beta_3 PG_{it} + \beta_4 LI_{it} + \beta_5 FA_{it} + \varepsilon_{it} \dots \dots \dots (3.3.3)$$

Where:

ROA_{it} = Return on assets of firm i at period t

α = Fixed value

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Regression Coefficients.

CI_{it} = Firm i 's incurred claims ratio at period t .

LE_{it} = Firm i 's leverage ratio at period t .

PG_{it} = Firm i 's premium growth ratio at period t .

LI_{it} = Firm i 's liquidity ratio at period t .

FA_{it} = Firm i 's age at period t .

ε_{it} = Observed error term.

3.3.1 Operationalization and Measurement of Variables

Table 3.1 provides the measurement of independent and dependent variables according to the study. The research consisted of 5 independent variables that affected the insurer's financial performance. They were: incurred claims, leverage, premium growth, liquidity and firm age. The researcher employed ratios to measure the variables. Ratios make it possible to tackle the size disparity that may arise from the study variables (Ajao & Eghosa, 2018).

The researcher employed ROA as a proxy for financial performance. Previous literature such as Kiptoo *et al.* (2021) and Kripa & Ajasllari (2016) also employed ROA in their works and the reason for this is because it takes into account the financial leverage and the risk that arises from using it as a measure of insurance financial performance; unlike other ratios such as ROE (Taye, 2018).

Table 3.1: Operationalization and Measurement of Variables

Variable	Variable Type	Operationalization	Measurement	Hypothesised Direction
Financial Performance	Dependent Variable	Return on per unit of a company's Asset (ROA)	$\frac{\text{Profit Before Taxation}}{\text{Total Assets}} \times 100$	
Incurred Claims	Independent Variable	Amount lost in form of claims settlements	$\frac{\text{Total Claims incurred}}{\text{Net Earned Premiums}} \times 100$	Null
Leverage	Independent Variable	Level of debt in a company's capital structure	$\frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100$	Null
Premium Growth	Independent Variable	Percentage change in premiums per annum	$\frac{(\text{Net Earned Premium for yr2} - \text{Net Earned Premium for yr1})}{\text{Net Earned Premium for yr 1}} \times 100$	Null
Liquidity	Independent Variable	Amount of cash generated by a current asset in order to meet short term obligations	$\frac{\text{Current Assets}}{\text{Current Liabilities}} \times 100$	Null
Firm Age	Independent Variable	Duration of time in terms of years that the underwriter has been conducting business	Logarithm of Firm Age	Null

Source: Author (2022)

3.4 Target Population

All the 56 insurers in Kenya that were incorporated by law in accordance to the companies' Act were the target population. The insurers were licensed by the IRA as per the insurance Act. The firms under study were in operation from the year 2015 to 2020. The researcher however encountered challenges accessing the financial statements of 6 insurers; Gateway Insurance Co., Invesco Assurance Co., Jubilee Health Insurance Co., Real Insurance Co., Sanlam General Insurance and Mercantile Insurance Co., subsequently, the population of the study was narrowed down to 50 insurers. Appendix II provides a list of the insurers that met the above criteria. The researcher used licensed firms for the sole reason that the data collected on the insurance companies was readily available on the IRA website in form of audited published financial statements. This therefore ensured reliability of the data that was collected.

3.5 Sampling Design

A census of all the 56 insurers that were active in Kenya during the period of study from 2015 to 2020 was performed. A census study enhanced validity of the data that was collected. The total population of insurers was not large and hence it was better to conduct a census since the result would be a genuine depiction of all the firms.

3.6 Data Collection Instrument

A data collection guide as seen in Appendix I was employed for the purpose of collecting secondary panel data. Extraction of data was from audited annual financial statements of Kenyan insurers that were incorporated by law under the companies' Act. The insurers also possessed a license from the IRA in accordance to the insurance Act. The researcher obtained the data from the IRA website and transferred it to the data collection guide.

The guide included all the 56 insurance companies, the relevant variables of the study and each year of study from 2015 to 2020. The data was quantitative in nature. Secondary data that is quantitative in nature is easier to obtain and measure. It is more economical to use since it saves time. Reliable secondary data was accessed from the IRA website.

3.7 Data Collection Procedure

Consent to conduct the research was sought for from Kenyatta University followed by an online registration of a research license from the National Commission on Science, Technology and Innovation. The two documents ensured legitimacy of the study and helped to avoid any legal issues that may arise during and after the research. Once approval had been granted, the researcher accessed the IRA website and obtained the relevant audited financial statements of the insurers under study.

A data collection guide that contained the names of the insurance firms, study variables and years of study was utilised. Careful filling in of the appropriate data in each row and column was done. The data was quantitative in nature and hence it was easy to measure and calculate. The researcher chose the above method due to the ease of accessing data, plus it saved money and time. It was also more reliable since the data was drawn from audited financial statements of Kenyan insurers.

3.8 Data Analysis and Presentation

First and foremost, the researcher performed data cleaning to ensure that any inaccuracies in the data collected were detected and corrected. This involved editing, sorting, validating and comparing the values on the data collection guide against the data set on the Insurance Regulatory Authority website so as to ensure that they were the same. The researcher also ascertained that the data was valid, accurate, complete, consistent and uniform. Data cleaning was done manually because it was simple; since the data was not derived from multiple origins.

The data was keyed into excel spreadsheets and then transferred to STATA which is a descriptive statistical tool that the researcher utilized in order to describe, summarize and compare quantitative data. Descriptive statistics was incorporated to explain the study variables in the form of mean, minimum, maximum and standard deviation. Inferential statistics was also used for the purpose of examining the relationship between the predictor and the predicted variables and it took the form of panel regression analysis. After the data analysis was completed, findings were relayed via graphs and tables. This provided a clear visual summary that could be used to draw conclusions.

3.9 Diagnostic Tests

Scrutinizing for any breach in normality assumptions guarantees an unprejudiced panel regression. In an effort to ascertain unbiased estimates and credible outcome, maintenance of the assumption that: there is existence of non-endogenous covariates and presence of non-correlated errors (Kamau *et al.*, 2021).

3.9.1 Test for Multicollinearity

When a predictor variable exhibits a considerable degree of linear linkage with a single or multiple predictor variables within a specific multiple regression, multicollinearity prevails (Kanbiro & Ayneshet, 2019). Severe multicollinearity should be given attention due to its likely impact on confidence intervals that yield non-credibility of predictor variables within a model (Kiptoo *et al.*, 2021). Variance inflation factor examined multicollinearity in the model. “As a rule of thumb a variance inflation factor of 1 represents no factor multicollinearity and between 5 and 10 reveals a high correlation between factors which may be a problem especially if the value exceeds 10” (Ochieng, Jagongo & Ndede, 2020). The findings revealed that no multicollinearity was present within the model.

3.9.2 Unit Root Test

It is crucial to ascertain that a time-stamped data set is stationary through examining for existence of a unit root. “Assumption of a stationary data means that the mean, variance and covariance are all constant across different times” (Abonyo, Kimutai & Atheru, 2020). The researcher employed the Augmented Dickey-Fuller test to check whether data was stationary. “The null hypothesis: the time series is not stationary was to be rejected if the p –value exceeded 0.05”. The findings indicated that the variables in the data set were all stationary.

3.9.3 Test of Normality

Samples derived from a population sample that is not normally distributed are often unreliable. The researcher thus tested for the assumption of a normally distributed data set by the use of the Shapiro-Wilk test. “The null hypothesis for the Shapiro-Wilk test is that: the data is normally distributed and it is declined when the p –value is below 0.05” (Taye, 2018). Study findings indicated normal data distribution.

3.9.4 Hausman Test

In panel data analysis, the Hausman test is a statistical test hypothesis conducted for the purpose of choosing between fixed effects or random effects model (Shawar & Danish, 2019). The panel regression model is tested for any endogenous regressors which may consequently result in the failure of the OLS estimators (Kivindu, Njoka & Mungai, 2020). A fixed effect regression model is employed by a researcher for the purpose of controlling the excluded variables that vary between cases but remain consistent over time (Anam & Abdullah, 2019).

The researcher used the variable change over a specified period to approximate the influence of the determinants on the predicted variable. The researcher had to decide on whether to use a method that consists of instrumental variables or that with more efficient OLS estimation (Ajao & Eghosa, 2018). A random effect model is employed for the purpose of controlling for excluded variables that vary over a period of time but remain consistent between cases (Anam & Abdullah, 2019).

The researcher employed the STATA software to run the Hausman test. “The model to be chosen according to the null hypothesis was the random effects model. The alternative hypothesis was that the model to be chosen was fixed effects” (Kivindu *et al.*, 2020). In short, the unique errors

were tested for correlation with the independent variable hence the null hypothesis was that they were not correlated. “If the value of p was below 0.05 the researcher would reject the null hypothesis and vice versa” (Berhe & Kaur, 2017). The Hausman test indicated that the model of best fit was the Random Effects Model.

3.10 Ethical Considerations

There was an obligation to execute the research in a manner that is deemed ethical by ensuring that consent to conduct the research was sought for through a letter to Kenyatta University and NACOSTI. The researcher maintained credibility by guaranteeing that the data used was derived from audited and published financial statements through the IRA website. Proper disclosure of information to the involved parties regarding the study was done for the purpose of ensuring transparency.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

Based on the estimated regression and diagnostic tests advanced in the preceding chapter, this chapter presents analysis of data that was collected, empirical outcome, inference of the product of analysis and deliberation of study outcomes. Guided by the research objectives, the chapter commences with the descriptive statistics of each variable, the trend in the study variables and diagnostic tests employed in the study and finally the chapter presents outcome of analysis of incurred claims, leverage, premium growth, liquidity, firm age and the financial performance of Kenyan insurers.

4.2 Descriptive Statistics

A simple summary and description of the research data to be analysed was done in the form of mean, minimum, maximum and standard deviation. Variables employed in the study were: financial performance(ROA_{it}), claims ratio(CI_{it}), leverage(LE_{it}), premium growth(PG_{it}), liquidity (LI_{it}) and firm age (FA_{it})

4.2.1 Descriptive Statistics for the Study Variables

Table 4.1 displays descriptive statistics for financial performance(ROA_{it}), incurred claims(CI_{it}), leverage(LE_{it}), premium growth(PG_{it}), liquidity(LI_{it}) and firm age(FA_{it}) for the 50 insurers that were active from 2015 to 2020.

Table 4.1: Summary of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Assets	300	-.37760	.39080	.0236076	.07692763
Incurred Claims	300	-.25790	2.41780	.5612899	.27747022
Leverage	300	.0062	1.0932	.656442	.1801824
Premium Growth	300	-1.0539	1.0000	.109534	.2679133
Liquidity	300	.35430	150.25890	6.3925796	11.24108422
Firm Age	300	.4771	2.2405	1.540297	.3252917
Valid N (listwise)	300				

Source: Research Data (2022)

As presented in Table 4.1, the average figure for ROA was 0.0236076; standard deviation was 0.07692763; lowest figure was -0.37760 and the highest figure was 0.39080. The low ROA mean figure indicated that on average, insurers did not effectively and efficiently utilize their assets and hence they recorded low profit margins for the period of study. The negative minimum figure revealed that some underwriters were investing in assets that were not lucrative and had high maintenance costs. Employment of the assets did not yield a desirable income and therefore losses were incurred which ultimately had a detrimental consequence on how insurers performed financially.

Table 4.1 also illustrates that the incurred claims ratio had an average figure of 0.5612899; standard deviation of 0.27747022; lowest figure was -0.25790 and highest figure was 2.41780. The mean and lowest figures were both below 1 which indicated that on average insurers were earning more premium income than the total claims that they paid out. The highest figure

indicated that a section of underwriters experienced an inflation in the total claims expense compared to revenues earned in form of premiums. This meant that underwriters engaged in poor risk management practices that overexposed them to huge underwriting risks that yielded from a surge in the outflow of cash in form of claims compared to the lower amount of cash received in form of premiums.

Results in Table 4.1 indicate that leverage had an average figure of 0.656442; standard deviation of 0.1801824; lowest debt-to-asset ratio was 0.0062 and the highest figure was 1.0932. The mean was below 1 and hence showed that on average, underwriters owned more assets than liabilities and were therefore capable of meeting their financial obligations by selling their assets if the need arose. The highest figure exceeded 1 which indicated that some insurers were highly leveraged and greatly exposed to risks such as bankruptcy if the cash generated was lower than the cost of debt. According to Olaosebikan (2013) the risk of being unable to generate enough revenue to service a debt rises as the total-debt-to-total-asset ratio moves closer to 1.

From Table 4.1, the average figure for premium growth was 0.109534; standard deviation was 0.2679133; lowest figure was -1.0539 and the highest was 1.0000. The positive mean figure indicated that on average insurers were experiencing an improvement in their net earned premium income over the 6-year study period. The negative minimum figure however showed that a section of underwriters had witnessed a weakening in their net earned premiums which was largely linked to premium rate undercutting by some firms who aimed to gain market share (IRA Report, 2019). This consequently exposed the insurers to the risk of being unable to cover the attached risk to the underwritten business.

The findings from Table 4.1 reveal that the average figure for liquidity was 6.3925796; standard deviation was 11.24108422; current-ratio's lowest figure was 0.35430 and the highest was 150.25890. The mean was above 1 which indicated that on average underwriters had more current assets than current liabilities and thus had the potential to fulfill their brief financial contracts before they expire. The lowest figure however was below 1 which revealed that there were insurers who had current liabilities that were more than their current assets and thus did not have enough financial resources to maintain short-term solvency.

According to the results in Table 4.1 firm age had an average figure of 1.540297; standard deviation was 0.3252917; lowest figure was 0.4771 and the highest was 2.2405. The mean indicated that the average insurer's age was 35 years. This implied that a large portion of the underwriters were well established in the insurance industry with an array of well-known insurance products. The findings also showed that the lowest firm age during the study period was 3 years. This indicated that some insurers were still new to the industry and had yet to establish strong relationships with customers, creditors and different stakeholders.

4.3. Trends of Variables

Trends in study variables were observed for all the 50 insurers that were active from 2015 to 2020. Bar charts were used to illustrate the behavior of financial performance (ROA_{it}), incurred claims (CI_{it}), leverage (LE_{it}), premium growth (PG_{it}) and liquidity (LI_{it}).

4.3.1 Trend in Financial Performance

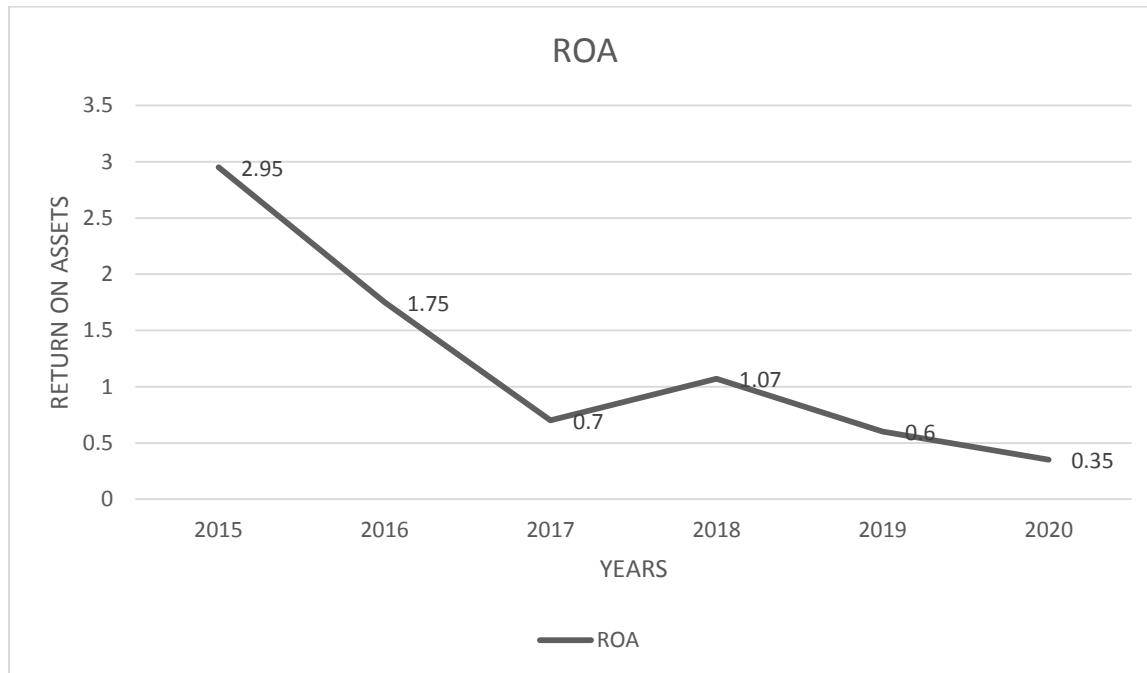


Figure 4.1: Trend in the Combined Insurers' ROA from 2015 to 2020

Source: Research Data (2022)

As per Figure 4.1 the combined ROA for all the 50 underwriters under study showed a moderately diminishing trend from 2.95 in 2015 to 0.35 in 2020. The average ROA also declined from 0.059 in 2015 to 0.012 in 2020. The drop suggested that insurers invested in assets that did not translate into a growth in revenue thus signified a gradual weakening in the overall industry's financial performance. "The COVID-19 pandemic played a substantial role in the fall in the combined ROA value for the year 2020, this is owing to the diminishing investment income from general insurance underwriters from Kshs.5 billion in 2019 to KES 3.2 billion in 2020" (IRA Report, 2020).

4.3.2 Trend in Incurred Claims Ratio

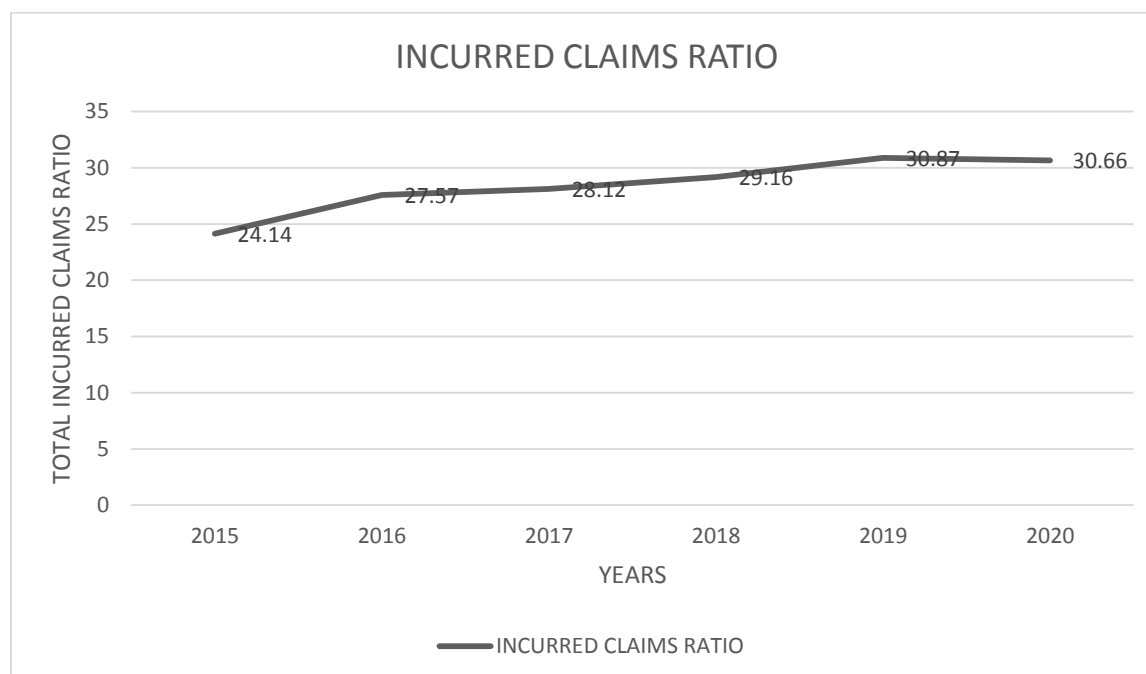


Figure 4.2: Trend in the Total Insurers' Incurred Claims Ratio from 2015 to 2020

Source: Research Data (2022)

According to Figure 4.2, the trend in the combined incurred claims ratio was on a steady rise over the 6-year period of study. This indicated that the claims paid out by the underwriters gradually elevated at a higher rate than the net premiums which were earned from 2015 to 2020. The behaviour thus suggested that insurers engaged in poor risk management tactics that exposed them to large amounts of claims that hindered the generation of underwriting income. According to the IRA Report (2020) there was a slight decline in the total incurred claims for the insurance industry due to a substantial plummet in the motor claims cost compared to other classes of insurance. The report further states that “the plunge in motor claims was as a result of the cessation of movement, curfews and lockdowns that were imposed by the Kenyan government in order to curb the COVID-19 pandemic in 2020”.

4.3.3 Trend in Leverage

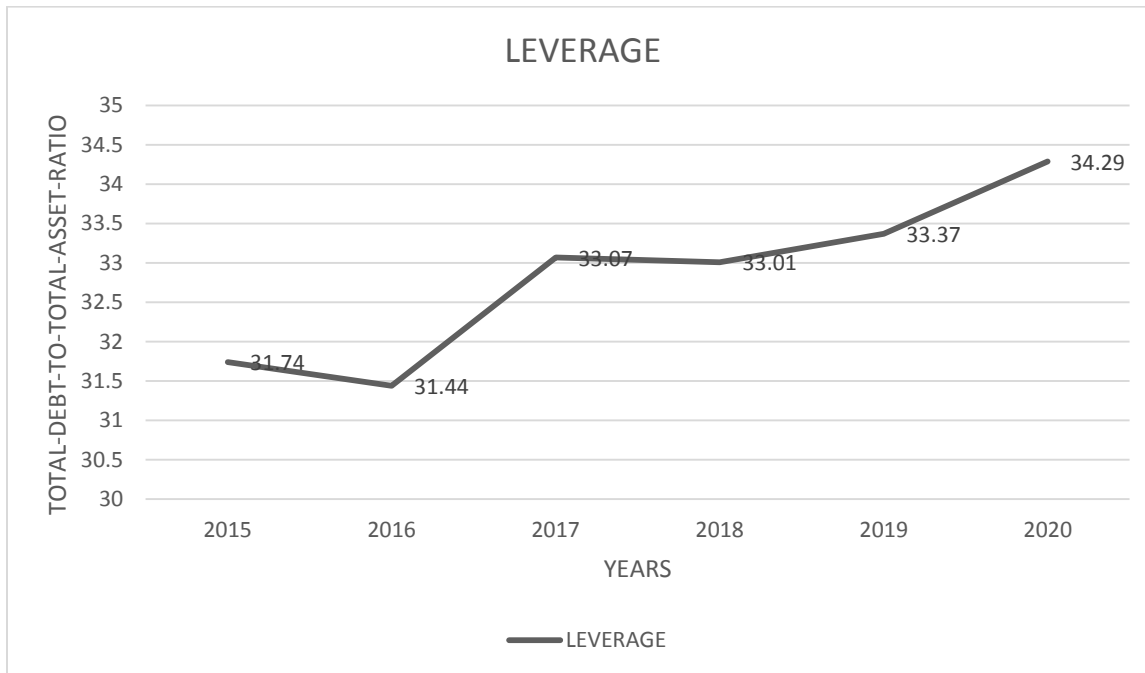


Figure 4.3: Trend in the Insurers' Total-Debt-to-Total- Asset Ratio from 2015 to 2020

Source: Research Data (2022)

From Figure 4.3 the researcher deduced that the amount of leverage ballooned over the 6-year duration as indicated in the rise in the total-debt-to-total-asset ratio from 31.74 in 2015 to 34.29 in 2020. An escalation in the total-debt-to-total-asset ratio revealed that insurers were incorporating more debt into their capital structure and were further exposing themselves to bankruptcy and the inability to pay off their creditors.

4.3.4 Trend in the Premium Growth Ratio

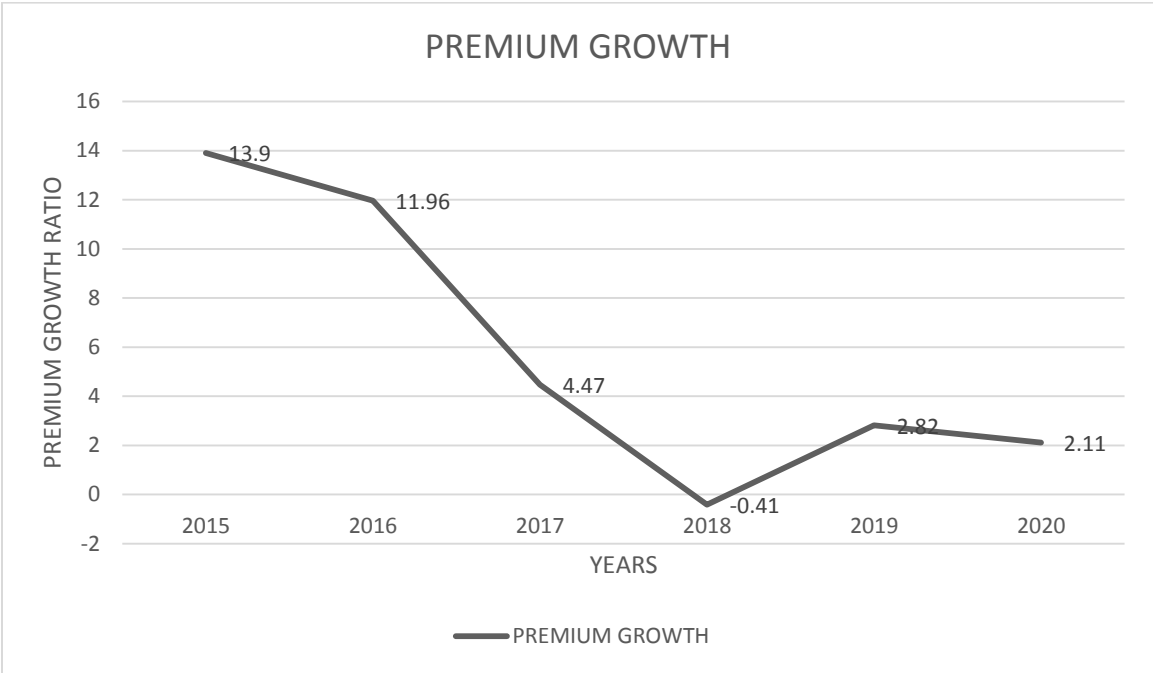


Figure 4.4: Trend in the Combined Premium Growth Ratio for Insurers from 2015 to 2020

Source: Research Data (2022)

As observed in Figure 4.4, total growth in premiums deteriorated over the 6-year study period with a high of 13.9 in 2015 and a low of -0.41 in 2018. The diminishing growth rate was linked to a surge in competition that led to premium rate undercutting by a section of underwriters who aimed at expanding their market share (IRA Report, 2018). The amount of premium earned was therefore not adequate to cover the attached risk to the underwritten business.

The IRA Report (2020) also revealed that “the COVID-19 pandemic in 2020 led to a drop in the demand for insurance products due to job losses and pay cuts by policy holders; a swell up in policy cancellations was experienced with the second half of 2020 recording 87,670 cancellations. The motor private segment had the highest number of cancellations totaling to 36,572; motor commercial with 11,663 cancellations and medical insurance had 11, 219 cancellations”.

4.3.5 Trend in Liquidity

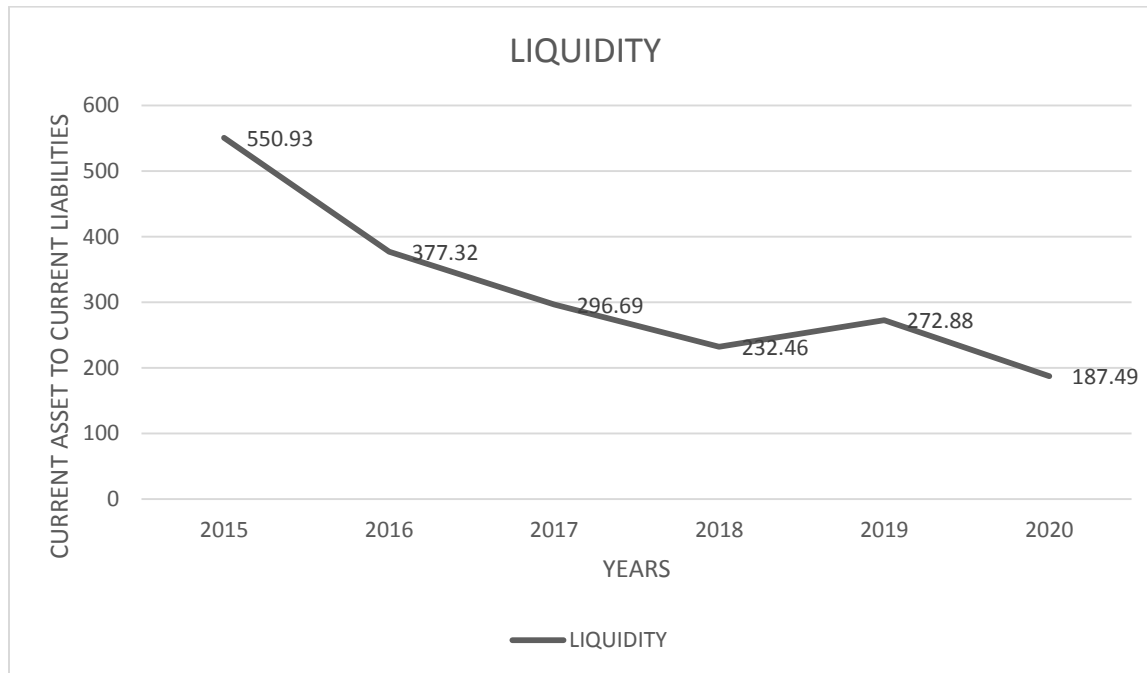


Figure 4.5: Trend in the Combined Current Ratio for the insurers from 2015 to 2020

Source: Research Data (2022)

Figure 4.5 reveals that the combined current ratio for the insurers under study contracted over the 6-year period from 550.93 in 2015 to 187.49 in 2020. The slump suggested that the insurance companies were not investing in current assets that were lucrative enough to generate adequate cash flow for the purpose of meeting their short-term obligations. “The COVID-19 pandemic led to a surge in capital market’s volatility for the year 2020 and investment income dropped by 23% to KES 35.86 billion in 2020 from KES 46.58 billion in 2019; insurance firms also cut down on corporate bond investments from KES 4.2 billion in 2019 to Kshs. 3 billion in 2020” (IRA Report, 2020).

4.4 Diagnostic Tests

The researcher performed diagnostic tests in order to ascertain that the assumptions of a classical linear regression were not contravened. Diagnostic tests carried out were: multicollinearity test, unit root test and test of normality.

4.4.1 Multicollinearity Test

Tolerance and the Variance Inflation Factor were used to check for multicollinearity between the predictor variables. As stated by Ochieng *et al.* (2020) “a low tolerance value of 0.1 or less indicates that the variable under consideration behaves in an almost perfect linear manner as other variable(s) within the model and hence should not be included in the equation”. Table 4.2 presents the product for the collinearity statistics.

Table 4.2: Collinearity Statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	Incurred Claims (CI_{it})	.920	1.087
	Leverage (LE_{it})	.991	1.009
	Premium Growth PG_{it}	.972	1.029
	Liquidity LI_{it}	.972	1.029
	Firm Age (FA_{it})	.932	1.073

a. Dependent Variable : Return on Assets

Source: Research Data (2022)

Table 4.2 illustrates the Tolerance and VIF values for Incurred Claims(CI_{it}), Leverage(LE_{it}), Premium Growth(PG_{it}), Liquidity (LI_{it}) and Firm Age(FA_{it}). All the variables under consideration had a tolerance value that was above 0.1 and therefore there was no indication of multicollinearity. Abonyo *et al.* (2020) explains that “if the VIF value is greater than 10, then the

conclusion is that multicollinearity exists and should be investigated”. The variables under study all had VIF values that were below 10 and hence no multicollinearity was exhibited within the model.

4.4.2 Unit Root Test

When analyzing time series data, it is important to check for the existence of a unit root or whether a sample is stationary. “The assumption that a sample from a time series is stationary means that the mean, variance and covariance are all constant across different times” (Ochieng *et al.*, 2020). The researcher employed the Augmented Dickey-Fuller test to check whether data was stationary. The product of the Augmented Dickey-Fuller Test is shown in Table 4.4.

Table 4.4: Augmented Dickey-Fuller Test

Variable	Statistic	P value	Conclusion
Return on Assets	-1.0374	0.000	Data is stationary
Incurred claims	-1.1927	0.000	Data is stationary
Premium growth	-1.5000	0.000	Data is stationary
Leverage	-7.8130	0.000	Data is stationary
Liquidity	-1.2394	0.000	Data is stationary

Source: Research Data (2022)

Decoding of the Augmented Dickey-Fuller test is hinged upon the p – value. “The null hypothesis states that the time series is not stationary while the alternate hypothesis is that the time series is stationary. A p –value below 0.05 indicates that the null hypothesis should be rejected while a p – value above 0.05 leads to the acceptance of the null hypothesis” (Abonyo *et al.*, 2020). The results from Table 4.4 revealed that all p –values for Incurred Claims(CI_{it}), Leverage(LE_{it}), Premium Growth(PG_{it}), Liquidity (LI_{it}) and Firm Age (FA_{it}) were below 0.05

hence the null hypothesis that states that there is presence of a unit root within the time series was rejected. The conclusion was that all the variables were stationary.

4.4.3 Test of Normality

Shapiro-Wilk test was utilized to check for normality of the panel data. Results are displayed in Table 4.5.

Table 4.5: Shapiro-Wilk Test for Normality

Variable	Statistic	P value	Conclusion
Return on Assets	0.93091	0.0621	Data is normal
Incurred claims	0.87	0.0945	Data is normal
Premium growth	0.8574	0.0733	Data is normal
Leverage	0.98075	0.0546	Data is normal
Liquidity	0.39748	0.0931	Data is normal

Source: Research Data (2022)

“The null hypothesis for the Shapiro-Wilk test for normality is that the data is normally distributed; if the p –value is below 0.05, then the null hypothesis is rejected and the conclusion is that the time series is not normally distributed” (Ochieng *et al.*, 2020). As per the outcome presented in Table 4.5, p –values for Incurred Claims(CI_{it}), Leverage(LE_{it}), Premium Growth(PG_{it}), Liquidity (LI_{it}) and Firm Age (FA_{it}) were all above 0.05 and therefore the researcher failed to reject the null hypothesis and deduced that the data was distributed normally.

4.4.4 Test for Fixed and Random Effects

It is crucial for the researcher to identify which model to run between the fixed effects and random effects when analyzing panel data. Hausman specification test was used to choose the

model of best fit. The panel regression model was tested for any endogenous regressors which may consequently result in the failure of the OLS estimators (Kiptoo *et al.*, 2021). Table 4.7 presents the product of the Hausman Specification Test.

Table 4.7: Hausman Specification Test for ROA

	Coefficients			
	(b)	(B)	(b-B)	Sqrt(diag(V_b-S-B))
	Fixed	Random	Difference	SE
Incurred	.1193816	.0979123	.0214693	.0101365
Claims				
Leverage	.1021976	.0947675	.0074301	.0060654
Premium	.1406496	.0864786	.054171	.06495736
Growth				
Liquidity	.166	.121	.046	.439675
Firm Age	.0523229	.2653625	-.2130396	.74320764

b = consistent under H_0 and H_a ; obtained from xtreg

B = inconsistent under H_a , efficient under H_0 ; obtained from xtreg

Test: H_0 : difference in coefficients not systematic

$$\begin{aligned} \text{Chi}^2(5) &= (b - B)'[(V_b - V_B)^{-1}](b - B) \\ &= 0.991 \end{aligned}$$

$$\text{Prob} > \text{Chi}^2 = 0.789$$

Source: Research Data (2022)

“The null hypothesis for the Hausman test is that the random effects model is the appropriate model to employ; if the p –value is below 0.05, then the researcher should decline the null hypothesis” (Onsongo, Muathe & Mwangi 2020). From the findings presented in Table 4.7,

Prob>chi2 = 0.789 was above 0.05. Consequently, the null hypothesis was not rejected and hence the study adopted the Random Effects Model.

4.5 Research Hypothesis Testing

A panel regression model was utilized to test the following hypotheses:

H₀₁: Incurred claims have no significant effect on the financial performance of insurance companies in Kenya.

H₀₂: Leverage has no significant effect on the financial performance of insurance companies in Kenya.

H₀₃: Premium growth has no significant effect on the financial performance of insurance companies in Kenya.

H₀₄: Liquidity has no significant effect on the financial performance of insurance companies in Kenya.

H₀₅: Firm Age has no significant effect on the financial performance of insurance companies in Kenya.

4.5.1 Effect of Firm Characteristics on Financial Performance

The researcher employed a panel regression model that comprised of financial performance(ROA_{it}) as the dependent variable and incurred claims(CI_{it}), leverage(LE_{it}), premium growth(PG_{it}), liquidity(LI_{it}) and firm age(FA_{it}) as the independent variables. The intent of the model was to ascertain the intensity of the linkage between the dependent and independent variables and also to demonstrate the statistical significance of the study hypotheses.

Table 4.8: Test of Fitness

<p style="text-align: center;">ROA</p> <p style="text-align: center;">F(49, 249) = 36.43</p> <p style="text-align: center;">Prob > F = 0.0000</p> <p style="text-align: center;">R = 0.939^a</p> <p style="text-align: center;">R square = 0.881</p> <p style="text-align: center;">Adjusted R square = 0.783</p> <p style="text-align: center;">Std. Error for the estimate = 0.040323</p> <p style="text-align: center;">a. Predictors: ROA (Constant), Firm Age, Premium Growth, Incurred Claims, Liquidity, Leverage</p>
--

Source: Research Data (2022)

Table 4.8 displays the compatibility of the regression model that was exploited to test the study hypotheses. The F –statistic reveals whether the regression model utilized for analysis is of great compatibility to the study data. The adjusted R^2 –value represents the degree of variance in ROA that can be accounted for by incurred claims, leverage, premium growth, liquidity and firm age (Kivindu *et al.*, 2020). As per Table 4.8 the F statistic was 36.43 and the p –value was 0.0000. A p –value of under 0.000 signified that the regression model was of great compatibility and that incurred claims, leverage, premium growth, liquidity and firm age were statistically significant to Kenyan insurers’ financial performance. The adjusted R^2 –value of 0.783 indicated that incurred claims, leverage, premium growth, liquidity and firm age accounted for 78.3% of divergence in underwriter’s financial performance.

Table 4.9: Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.876	5	1.975	57.539	.000 ^b
	Residual	10.093	294	.034		
	Total	19.969	299			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), Firm Age, Liquidity, Leverage, Premium Growth, Incurred Claims

Source: Research data (2022)

Results from the analysis of variance of firm characteristics and financial performance of Kenyan insurers as presented in Table 4.9 indicates that the regression model employed for analysis was statistically significant at significance level of 5%. Incurred claims, leverage, premium growth, liquidity and firm age were good predictors of insurer's financial performance as evidenced by the F –statistic of 57.539 and p –value (.0000) that was below significance level 0.05.

Table 4.10: Regression Results with ROA

ROA	Coef.	Std. Err.	t	p> t	(95% Conf. Interval)	
IncurredClaims	-.0979123	.0335327	2.92	0.004	.0318684	.1639562
Leverage	.0947675	.0672145	2.41	0.006	-.376139	.1856251
Premium Growth	.0864786	.0240509	3.60	0.000	.0391094	.1338478
Liquidity	.121	.015	8.013	0.000	-.0012861	.001306
Firm Age	.2653625	.0386035	6.87	0.000	.1897037	.3410267
_cons	.1193816	.0154378	7.73	0.000	.0889763	.1497868
sigma_u	.24736908					
Sigma_e	.09835155					
rho	.86349966 (fraction of variance due to u_i)					

F test that all $u_i = 0$: $F(49, 249) = 36.43$ Prob > F = 0.0000

Source: Research Data (2022)

Table 4.10 shows the random effects regression results. “When providing an interpretation for the outcome of a regression analysis, at the confidence level of 95%, the null hypothesis is rejected when the p –value is below 0.05” (Kiptoo *et al.*, 2021).

4.5.2 Effect of Incurred Claims(CI_{it}) on Financial Performance (ROA_{it})

Objective one strived towards determining the effect of incurred claims on the financial performance of insurance companies in Kenya. Table 4.10 reveals that incurred claims had a coefficient of -0.0979123 and $p > |t|$ was 0.004. The p –value was below 0.05; the study therefore rejected the null hypothesis that incurred claims have no significant effect on the financial performance of insurance companies in Kenya. At confidence level of 95%, incurred claims was established to be negative and statistically significant to Kenyan insurers’ financial performance.

The results were similar to research conducted by (Angga *et al.*, 2020; Korir, 2020; Kanbiro & Ayneshet, 2019; Islam & Layth, 2020; Taye, 2018) who also found that a rise in incurred claims cost resulted in a drawback in how insurers performed financially. The findings were however inconsistent with research carried out by (Dey *et al.*, 2015; Ahmed & Usman, 2011) who found that a rise in incurred claims, resulted in an improved ability of an insurer to perform better financially.

4.5.3 Effect of Leverage(LE_{it}) on Financial Performance(ROA_{it})

The second objective was geared towards establishing the effect of leverage on the financial performance of insurance companies in Kenya. The coefficient for leverage as per Table 4.10 was 0.0947675 and $p > |t|$ was 0.006. The p –value was below 0.05; the study therefore rejected the null hypothesis that Leverage has no significant effect on the financial performance of

insurance companies in Kenya. At confidence level of 95%, leverage was established to be positive and statistically significant to Kenyan insurers' financial performance.

The outcome was consistent with studies that were carried out by (Anam & Abdullah, 2019; Mwangi & Murigu, 2015; Burca & Batrinca, 2014; Mehari & Aemiro, 2013; Wanyama & Olweny, 2013) who found that raising the amount of leverage in a company's capital structure, resulted in an improvement in how insurers performed financially. However, studies carried out by (Olalekan, 2018; Ejigu, 2016; Cekrezi, 2015; Dey *et al.*, 2015) found that elevating the amount of leverage resulted in an overall decline in how insurers performed financially.

4.5.4 Effect of Premium Growth(PG_{it}) on Financial Performance(ROA_{it})

The third objective anticipated towards determining the effect of premium growth on the financial performance of insurance companies in Kenya. The results from Table 4.10 reveal that the coefficient for premium growth was 0.0864786 and $p > |t|$ was 0.000. The p -value was below 0.05; the study therefore rejected the null hypothesis that premium growth has no significant effect on the financial performance of insurance companies in Kenya. At confidence level of 95%, premium growth was established to be positive and statistically significant to Kenyan insurers' financial performance.

The results concurred with research done by (Kanbiro & Ayneshet 2019; Asrat (2016); Derbali, 2014) who found that boosting the amount of premium income annually resulted in a subsequent improvement in the insurer's ability to perform better financially. The results of this study however differed from research carried out by (Daare, 2016; Burca & Batrinca, 2014; Charumathi, 2012) who found that a multiplication in the annual rate of premium growth led to a drop in how insurers performed financially.

4.5.5 Effect of Liquidity(LI_{it}) on Financial Performance(ROA_{it})

The fourth objective endeavored towards establishing the effect of liquidity on the financial performance of insurance companies in Kenya. Table 4.10 shows that liquidity had a coefficient of 0.121 and $p > |t|$ was 0.000. The p –value was below 0.05; the study therefore rejected the null hypothesis that liquidity has no significant effect on the financial performance of insurance companies in Kenya. At confidence level of 95%, liquidity was established to be positive and statistically significant to Kenyan insurers' financial performance.

The outcome concurred with studies carried out by (Anam & Abdullah, 2019; Daare, 2016) who found that managers who held more cash and liquid assets eventually witnessed an improvement in how insurers performed financially. The findings were however not similar to studies carried out by (Berhe & Kaur, 2017; Ejigu, 2016; Gatsi, Gadzo & Akoto, 2013) who found that higher liquidity ratios resulted in a lower ability of an insurer to perform better financially.

4.5.6 Effect of Firm Age(FA_{it}) on Financial Performance(ROA_{it})

The last objective made an effort towards the determination of the effect of firm age on the financial performance of insurance companies in Kenya. As per the results presented in Table 4.10 the coefficient for liquidity was 0.2653625 while $p > |t|$ was 0.000. The p –value was less than 0.05; the null hypothesis that firm age has no significant effect on the financial performance of insurance companies in Kenya was subsequently rejected. At 95% confidence level, firm age was established to be positive and statistically significant to Kenyan insurers' financial performance.

The findings were consistent with studies carried out by (Kange *et al.*, 2020; Ajao & Eghosa, 2018; Islam & Layth, 2020; Daare, 2016; Derbali, 2014) who found that as insurers aged, they

witnessed an improvement in how they performed financially. Studies carried out by (Gunu & Ademede, 2015; Bilal *et al.*, 2013) however found that aging of insurers resulted in their diminished ability to perform better financially.

Table 4.11 Summary of Hypothesis Testing

Hypothesis	Coefficient	p –value	Decision	Conclusion
H ₀₁ : Incurred claims have no significant effect on the financial performance of insurance companies in Kenya.	-0.0979123	0.004	Reject H_0	Negative and statistically significant.
H ₀₂ : Leverage has no significant effect on the financial performance of insurance companies in Kenya.	0.0947675	0.006	Reject H_0	Positive and statistically significant.
H ₀₃ : Premium growth has no significant effect on the financial performance of insurance companies in Kenya.	0.0864786	0.000	Reject H_0	Positive and statistically significant.
H ₀₄ : Liquidity has no significant effect on the financial performance of insurance companies in Kenya.	0.121	0.000	Reject H_0	Positive and statistically significant.
H ₀₅ : Firm Age has no significant effect on the financial performance of insurance companies in Kenya.	0.2653625	0.000	Reject H_0	Positive and statistically significant.

Source: Research Data (2022)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This final chapter provides a summary of the research findings based on the study objectives. The researcher made inferences as per the outcomes presented in Chapter Three and finally recommendations were offered with the intent to augment the already existing body of knowledge in finance and insurance.

5.2 Summary of Findings

The study's main objective was to investigate the effect of firm characteristics on the financial performance of insurance companies in Kenya. ROA was the measure for the dependent variable - financial performance. The independent variables were: incurred claims, leverage, premium growth, liquidity and firm age. A Random Effects Model was utilized to analyse the association between incurred claims, leverage, premium growth, liquidity and firm age and insurer's financial performance.

Objective one determined the effect of incurred claims on Kenyan insurers' financial performance. Analysis via panel regression established that incurred claims, which were measured by total-incurred-claims-to-net-earned-premiums, were negative and statistically significant to Kenyan insurers' financial performance.

The second study objective established the effect of leverage on Kenyan insurer's financial performance. The outcome of analysis via regression determined that leverage, which was

measured by the total-debt-to-total-asset ratio, was positive and statistically significant to Kenyan insurers' financial performance.

The third study objective determined the effect of premium growth on Kenyan insurers' financial performance. The results of the panel regression analysis established that premium growth which was measured by yearly rate of change in the net earned premiums, was positive and statistically significant to Kenyan insurers' financial performance.

The fourth objective established the effect of liquidity on Kenyan insurers' financial performance. The regression analysis determined that liquidity which was measured by the ratio of current-assets-to-current-liabilities, was positive and statistically significant to Kenyan insurers' financial performance.

The fifth objective determined the effect of firm age on Kenyan insurers' financial performance. The age of the firm was based on the number of years since the insurer's establishment to the current year of study. The firm age was then transformed to a logarithm for each of the underwriters that were under study; the findings from the random effects model established that firm age was positive and statistically significant to Kenyan insurers' financial performance.

5.3 Conclusion

Based on the outcome of the study the researcher drew the following conclusions. Firstly, referencing the first objective, Incurred claims were found to be negative and statistically significant to Kenyan insurers' financial performance. The study therefore concluded that insurers who had high incurred claims ratios witnessed an overall decline in their ability to perform better financially.

As per the second objective, leverage was found to be positive and statistically significant to Kenyan insurers' financial performance. The study thus concluded that insurers who incorporated debt into their capital structure were motivated to generate higher revenues than their cost of debt, consequently maximizing their profits and ultimately improving their overall ability to perform better financially.

In view of the third objective, premium growth was found to be positive and statistically significant to Kenyan insurers' financial performance. The research therefore concluded that insurers who focused on the growth of their total earned premium income witnessed a boost in their total revenue and ultimately a rise their potential to perform better financially.

Referencing the fourth objective, liquidity was found to be positive and statistically significant to Kenyan insurers' financial performance. The study concluded that insurers who had high current ratios were able to adequately finance their operations for the purpose of generating more income and ultimately improving their capability to perform better financially.

Lastly, referencing the fifth objective firm age was found to be positive and statistically significant to Kenyan insurers' financial performance. The study therefore concluded that as insurance firms increased in age, they gained the necessary skills, competencies and resources necessary to encourage the maximization of profits and eventually strengthen their overall capacity to perform better financially.

5.4 Recommendations

Based on the findings; the following recommendations were put forward. Firstly, in light of the negative association between incurred claims and insurers' financial performance, the study recommends that appropriate risk management strategies should be formulated with the aim of

managing the cost of incurred claims so as to ensure that they do not exceed the amount of premium income earned. This should include proper and thorough investigation on claims that have been filed so as to ascertain that money is not lost through fraudulent claims and that only legitimate claims are settled. The Insurance Regulatory Authority and the government should also institute measures directed at prosecuting anyone involved in filing fraudulent claims.

Secondly, in view of the positive association between leverage and insurer's financial performance, the study recommends that the government should formulate proper policies that make it easier for underwriters to access loans. Moreover, managers who opt to incorporate debt financing into their capital structure should ensure that appropriate measures are put in place in order to ensure that debt is not piled up beyond its optimum limit. Caution should also be taken so as to ascertain that the amount of debt does not exceed the amount of revenue generated from underwriting activities and other investment in order to diminish the risk of bankruptcy.

Referencing the positive association between premium growth and insurer's financial performance, the research recommends that the Insurance Regulatory Authority (IRA) should set up measures that discourage premium rate undercutting by some insurers who run down prices to low levels such that the amount earned cannot cover the attached risk to the underwritten business. More so, the government, Insurance Regulatory Authority and Association of Kenya Insurers should carry out consumer awareness campaigns that aim at educating the general public on the benefits of taking up insurance covers especially in the areas of health and education.

This will help tackle the challenge of low insurance penetration and may boost the amount generated from underwriting activities. Innovations and incorporation of new technologies such

as smart assurance apps and insurtechs should also be embraced by underwriters. This is because they are a sure way of cutting cost of policyholder enrolment, claims settlement and even encourage access to tailor made policies. Such technologies could ultimately lead to a surge in premium growth, cost minimization, improved customer satisfaction and ultimately a boost in how insurers perform financially.

In line with the positive association between liquidity and insurer's financial performance, the study recommends that management of insurer's should put in place policies that ensure that underwriters have sufficient cash and liquid assets for making claims settlements as they fall due, general running of the business and also to caution them against financial adversities. By doing so, insurers will not be exposed to liquidity risk that may arise from a maturity mismatch between the inflow and outflow of cash in the company. Measures should also be taken to ascertain that managers do not use any cash that is deemed to be idle for their own selfish gains. Instead, the money should be invested in lucrative assets /ventures so as to reduce wastage and ensure the generation of more income for the underwriters.

Lastly, referencing the positive association between firm age and insurer's financial performance, the study recommends that insurers should formulate long-term strategies that explain in detail what objectives they wish to achieve, how they will achieve the objectives, and when they should have achieved the objectives. Periodic monitoring, evaluation and review of the strategies should be done so as to ensure that the insurer is on the right path to adding more years under their belt, gaining competitive advantage, learning and experience that is required to cope with the ever-changing market environment.

Ultimately, they will have well-established networks and also, stronger relationships will be forged with creditors, investors and other stakeholders in the industry; they will also achieve brand reputation and greater convincing power upon potential policyholders, investors and lending institutions. Managers will therefore not suffer the challenges of newness but instead focus on growth of premiums, expense minimization, customer satisfaction and innovations which may ultimately translate into profits and an improved ability to perform better financially.

5.5 Contribution to Knowledge

The study augments the already existing scholarly work in the field of finance and insurance by offering a basis and a point of reference for future scholars and researchers who wish to gain clarity on how incurred claims, leverage, premium growth, liquidity and firm age affect the way Kenyan insurers' perform financially and also how the COVID-19 pandemic has affected the variables of the study.

5.6 Suggestion for Further Research

The study purposed to assess how incurred claims, leverage, premium growth, liquidity and firm age impacted Kenyan insurers' financial performance. The researcher focused on firm characteristics that could be measured by the use of financial statements (balance sheet and profit & loss accounts). This is because the data was readily and easily accessible from the IRA website. It should however be noted that there are firm characteristics that may impact the way an underwriter performs financially but cannot be measured in monetary terms; hence their information cannot be drawn from financial statements. These firm characteristics consist of: management competencies, customer satisfaction, product innovation & quality and employee satisfaction. The researcher therefore suggests that further studies on how the above non-

financial variables affect the ability of an insurer to perform financially; since the researcher has not come across such study that has been carried out.

REFERENCES

- Abonyo, O., Kimutai, G., & Atheru, M. (2020). Monetary policy instruments and financial performance of commercial banks in Kenya. *International Journal of Research in Finance and Marketing*, 10(9), 1-23.
- Adams, M., & Buckle, M. (2003). The determinants of corporate performance in the Bermuda insurance market. *Applied Financial Economics*, 13(2), 133-143.
- Ahmed, N., & Usman, A. (2011). Determinants of performance: a case of life insurance sector of Pakistan. *International Research Journal of Finance and Economics*, 6(1), 123-128.
- Ajao, M., & Eghosa, O. (2018). Firm specific factors and performance of insurance firms in Nigeria. *Amity Journal of Finance*, 3(1), 14-28.
- Akotey, O., Sackey, F., Amoah, L., & Manso, R. (2013). The financial performance of life insurance companies in Ghana. *Journal of Risk Finance*, 14(3), 286-302.
- Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman stock exchange. *Journal of Management Research*, 4(2), 266-289.
- Anam, B., & Abdullah, S. (2019). Determinants of financial performance of insurance companies of USA and UK during global financial crisis (2007-2016). *International Journal of Accounting Research*, 7(1), 1-9.
- Angga, F., Putra, H., Isfenti, S., & Iskandar, M. (2020). The effect of claim ratio, operational ratio and retention ratio on profitability performance of insurance companies in Indonesia stock exchange. *International Journal of Research and Review*, 7(3), 223-231.

- Association of Kenya Insurers. (2021). *Insurance Industry Annual Report*. Nairobi. Retrieved from: [https://www.akinsure.com/images/publications/AKI%20 Ann_Report_2018.pdf](https://www.akinsure.com/images/publications/AKI%20Ann_Report_2018.pdf)
- Asrat, L. (2016). Determinants of profitability in private insurance companies in Ethiopia. *Journal of Poverty, Investment and Development*, 26, 85-92.
- Babuna, P., Yang, X., Gylilbag, A., Awudi, A. Ngmenbelle, D., & Bian, D. (2020). The impact of COVID-19 on the insurance industry. *International Journal of Environmental Research and Public Health*, 17(16), 1-20.
- Bawa, S., & Chattha, S. (2013). Financial performance of life insurers in Indian insurance industry. *Pacific Business Review International*, 6(5), 44-52.
- Barney, J. B. (1991). Firm resources and sustainable competitive advantage. *Journal of Management*, 35(11), 930-939.
- Berhe, T., & Kaur, J. (2017). Determinants of insurance companies' profitability: Analysis of insurance sector in Ethiopia. *International Journal of Research in Finance and Marketing*, 7(4), 124-137.
- Bilal, J. K., Sumaira, T., & Najm, S. (2013). Determinants of profitability panel data: Evidence from insurance sector of Pakistan. *Management and Administrative Sciences Review*, 2(1), 10-22.
- Burca, A., & Batrinca, G. (2014). The determinants of financial performance in the Romanian insurance market. *International Journal of Academic Research in Accounting, Finance and Management Science*, 4(1), 299-308.

- Cekrezi, A. (2015). Determinants of financial performance of the insurance companies: A case of Albania. *International Journal of Economics, Commerce and Management*, 3(4), 1-10.
- Charumathi, B. (2012, July). On the determinants of profitability of Indian life insurers-An empirical Study. *Proceedings of the World Congress on Engineering, London, U.K.*
- Chepkoech, F., & Rotich, G. (2017). Effect of risk management process on motor insurance fraud in Kenya. *International Journal of Social Sciences and Information Technology*, 3(3), 1934-1951.
- Coase, R. (1937). *The nature of the firm*. Oxford: Blackwell Publishing.
- Daare, W. (2016). Determinants of non-life insurance companies' profitability: An empirical study in India. *International Journal of Innovative Research and Advanced Studies*, 3(13), 6-11.
- Deloitte. (2022). *Insurance Industry Outlook Report 2022: Digital and talent transformation accelerating as insurers adapt postpandemic growth*. Retrieved from: https://www2.deloitte.com/content/dam/insights/articles/US164650_CFS-Insurance-industry-outlook/DI_Insurance-industry-outlook.pdf
- Deloitte. (2019). *East Africa Insurance Outlook Report 2019/2020*. Retrieved from: <https://www2.deloitte.com/content/dam/Deloitte/ke/Documents/audit/Final%20Insurance%20Outlook%20Report%20EA%202019.pdf>
- Derbali, A. (2014). Determinants of performance of insurance companies in Tunisia: The case of life insurance. *International Journal of Innovation and Applied Studies*, 6(1), 90-96.

- Dey, N., Adhikari, K., & Bardhan, M. (2015). Factors determining financial performance of life insurance companies of India-An empirical study. *International Journal of Economic and Business Review*, 3(8), 42-48.
- Ejigu, N. S. (2016). Determining internal factors affecting financial performance of insurance companies in Ethiopia. *Research Journal of Commerce & Behavioural Science*, 5(6), 9-21.
- EY. (2018). Global insurance trends analysis. Retrieved from: <https://assets.ey.com>
- Gatsi, J. G., Gadzo, S. G., & Akoto, R. K. (2013). Firm level and macroeconomic effects on financial performance of insurance companies in Ghana. *International Journal of Business Administration and Management*, 3(1), 1-9.
- Gonga, M., & Sasaka, P. (2017). Determinants of financial performance of insurance firms: A survey of selected insurance firms in Nairobi county. *The Strategic Journal of Business & Change Management*, 4(8), 123-143.
- Government of the Republic of Kenya. (2007). *Kenya Vision 2030*. Retrieved from: <http://vision2030.go.ke/inc/uploads/2018/05/Vision-2030-Popular-Version.pdf>
- Gunu, U., & Adamade, S. (2015). The relationship between firm age and financial performance in Nigeria: A panel analysis. *Journal of Sustainable development in Africa*, 17(3), 128-141.
- Insurance Regulatory. (2020). *Insurance Industry Annual Report*. Nairobi. Retrieved from: <https://www.ira.go.ke/images/docs/annual/2020/Insurance-Industry-Annual-Report-2020.pdf>

- Insurance Regulatory. (2019). *Insurance Industry Annual Report*. Nairobi. Retrieved from:
<https://www.ira.go.ke/images/docs/annual/2019/Insurance-Industry-Annual-Report-2019.pdf>
- Insurance Regulatory. (2018). *Insurance Industry Annual Report*. Nairobi. Retrieved from:
<https://www.ira.go.ke/images/docs/annual/2019/Insurance-Industry-Annual-Report-2018.pdf>
- Islam, A., & Layth, M. (2020). The determinants of profitability of insurance companies in Palestine. *SSRN Electronic Journal*, 36(2), 1-30.
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency cost and ownership structure. *Journal of Financial Economics*, 3, 305-360.
- Kamau, A. M., Olweny, T., & Muturi, W. M. (2021). Effects of firm characteristics on financial performance of insurance firms in Kenya. *The International Journal of Business & Management*, 9(6), 292-300.
- Kanbiro, O. D., & Ayneshet, A. A. (2019). Factors affecting financial performance of insurance companies operating in Hawassa city administration, Ethiopia. *Universal Journal of Accounting and Finance*, 7(1), 1-10.
- Kang'e, M., Senaji, T., & Orero, R. (2020). Firm characteristics and performance of private health insurance sector in Kenya. *Journal of Business and Strategic Management*, 5(1), 15-27.
- Keynes, J. M. (1936). *The general theory of employment, interest and money* (2007 ed). United Kingdom: Palgrave Macmillan.

- Kiptoo, I., Kariuki, S., & Ocharo, K. (2021). Risk management and financial performance of insurance firms in Kenya. *Cogent Business & Management*, 8(1), 1-7.
- Kivindu, S., Njoka, C., & Mungai, John. (2020). Derivative hedging and performance of non-financial firms listed in the Nairobi Securities Exchange, Kenya. *The International Journal of Business & Management*, 8(7), 15-25.
- Korir, E. (2020). A comparative study of claim Ratio of Jubilee insurance company with other insurance companies in Kenya. *International Journal of Innovative Science and Research Technology*, 5(9), 1263-1268.
- KPMG Annual East Africa Insurance Survey. (2016). *Kenya Insurance Survey Report: The next Generation customer*. Retrieved from: <https://www.akinsure.com/images/pdf/KPMG>
- Kripa, D., & Ajasllari, D. (2016). Factors affecting the profitability of insurance companies in Albania. *European Journal of Multidisciplinary Studies*, 1(1), 352-360.
- Mehari, D., & Aemiro, T. (2013). Firm specific factors that determine insurance companies' performance in Ethiopia. *European Scientific Journal*, 9(10), 245-255.
- Modgiliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48, 261-297.
- Morara, K., & Sibindi, B. (2021). Determinants of financial performance of insurance companies: Empirical evidence using Kenyan data. *Journal of Risk and financial management*, 14(1), 2-13.

- Msoni, T., & Nyide, C. (2021). Nexus of firm characteristics and financial performance of non-life insurance companies in southern African development community. *Investment Management and Financial Innovations*, 18(4), 95-110.
- Mwangi, M., & Iraya, C. (2014). Determinants of financial performance of general insurance underwriters in Kenya. *International Journal of Business and Social Science*, 5(13), 210-215.
- Mwangi, M., & Murigu, J. (2015). The determinants of financial performance in general insurance companies in Kenya. *European Scientific Journal*, 11(1), 288-297.
- Nduyu, D., & Magutu, P. (2018). Operations management practices and operational performance of insurance brokers in Nairobi City, Kenya. *Noble International Journal of Business and Management Research*, 2(9), 70-83.
- Ngunguni, J., Misango, S., & Osiro, M. (2020). Examining the effects of financial factors on profitability of general insurance companies in Kenya. *International Journal of Finance and Accounting*, 5(1), 1-18.
- Ochieng, R., Jagongo, A., & Ndede, F. (2020). Working capital management and financial performance of manufacturing and allied category of firms listed at the Nairobi Securities Exchange, Kenya. *International Journal of Research and Marketing*, 10(1), 1-21.
- OECD. (2018). *Global insurance market trends*. Retrieved from: <https://www.oecd.org/finance/>
- Okparaka, V. (2017). Contribution of intra-industry variables on profitability of insurance business in Nigeria. *Journal on Banking Financial Services & Insurance Research*, 7(11), 1- 23.

- Olalekan, L. (2018). Effect of liquidity risk, premium growth on the performance of quoted insurance firms in Nigeria: A panel data analysis. *American Finance & Banking Review*, 2(1), 42-51.
- Olaosebikan. O. (2013). The determinants of the profitability of micro-life insurers in Nigeria. *The International Association for the Study of Insurance Economics*, 38, (140-159).
- Ologbenla, P. (2018). Impact of liquidity management on the performance of insurance companies in Nigeria. *Journal of Economics and Finance*, 9(1), 40-45.
- Onsongo, S., Muathe, S., & Mwangi, L. (2020). Financial Risk and Performance of Commercial and Service Listed Companies in Nairobi Securities Exchange, Kenya. *International Journal of Financial Studies*, 8(3), 1-15.
- Putra, N. (2017). The influence of growth of income, assets, ratio of claim and risk based capital on the profitability of life insurance companies in Indonesia. *International Journal of Business and Commerce*, 6(9), 24-42.
- Shawar, K., & Danish, A. (2019). Factors affecting financial performance of insurance industry in Pakistan. *Research Journal of Finance and Accounting*, 10(5), 29-41.
- Sigma 3 Report. (2019). *World insurance: the great pivot east continues*. Retrieved from: <https://www.swissre.com/institute/research/sigma-research/sigma-2019-03.html>
- Taye, T. T. (2018). Analysis of factors affecting financial performance: Evidence from selected Ethiopian insurance companies. *International Journal of Science and Research*, 7(12), 834-852.

- Too, I. C. (2018)., & Simiyu, E. (2018). Firm characteristics and financial performance of general insurance firms in Kenya. *International Journal of Business Management & Finance*, 1(39), 672-689.
- Wani, A., & Dar, S. (2015). Relationship between financial risk and financial performance: an insight of Indian insurance industry. *International Journal of Science and Research*, 4(11), 1424-1433.
- Wanyama, D., & Olweny, T. (2013). Effects of corporate governance on financial performance of listed insurance firms in Kenya. *Public Policy and Administration Research*, 3(4), 96-120.
- Yuvaraj, S., & Ayele, A. (2013). A study on the performance of insurance companies in Ethiopia. *International Journal of Marketing, Financial Services and Management Research*, 2, 138-150.

APPENDICES

Appendix i : Data Collection Form

Name of Insurance Company						
	2020	2019	2018	2017	2016	2015
Indicator	Kenya shillings '000'	Kenya shillings '000'	Kenya shillings '000'	Kenya shillings '000'	Kenya shillings '000'	Kenya shillings '000'
Profit Before Tax						
Current Assets						
Total Claims Incurred						
Net Earned Premiums						
Total Liabilities						
Total Assets						
Current Liabilities						
Firm Age						

Source: Researcher (2022)

Appendix ii: List of Kenyan Insurers

1. AAR Insurance Company Limited
2. Africa Merchant Assurance Company Limited
3. AIG Kenya Insurance Company Limited
4. Allianz Insurance Company of Kenya Limited
5. APA Insurance Limited
6. APA Life Assurance Company Limited
7. Barclays Life Assurance Kenya Limited
8. Britam General Insurance Company (K) Limited
9. Britam Life Assurance Company (K) Limited
10. Metropolitan Cannon General Insurance Company Limited
11. Capex Life Assurance Company Limited
12. CIC General Insurance Company Limited
13. CIC Life Assurance Company Limited
14. Corporate Insurance Company Limited
15. Directline Assurance Company Limited
16. Fidelity Shield Insurance Company Limited
17. First Assurance Company Limited
18. GA Life Assurance Limited
19. GA Insurance Limited
20. Geminia Insurance Company Limited
21. ICEA Lion General Insurance Company Limited
22. ICEA LION Life Assurance Company Limited
23. Intra Africa Assurance Company Limited
24. Invesco Assurance Company Limited
25. Jubilee General Insurance Limited
26. Jubilee Health Insurance Limited
27. Kenindia Assurance Company Limited
28. Kenya Orient Insurance Limited
29. Kenya Orient Life Assurance Limited
30. KUSCCO Mutual Assurance Limited

31. Liberty Life Assurance Kenya Limited
32. Madison Insurance Company Kenya Limited
33. Madison General Insurance Kenya Limited
34. Mayfair Insurance Company Limited
35. Metropolitan Cannon Life Assurance Limited
36. Occidental Insurance Company Limited
37. Old Mutual Assurance Company Limited
38. Pacis Insurance Company Limited
39. MUA Insurance (Kenya) Limited
40. Pioneer General Insurance Company Limited
41. Pioneer Assurance Company Limited
42. Prudential Life Assurance Company Limited
43. Resolution Insurance Company Limited
44. Saham Assurance Company Kenya Limited
45. Sanlam General Insurance Company Limited
46. Sanlam Life Insurance Company Limited
47. Takaful Insurance of Africa Limited
48. Tausi Assurance Company Limited
49. The Heritage Insurance Company Limited
50. The Jubilee Insurance Company of Kenya Limited
51. The Kenyan Alliance Insurance Company Limited
52. The Monarch Insurance Company Limited
53. Trident Insurance Company Limited
54. UAP Insurance Company Limited
55. UAP Life Assurance Company Limited
56. Xplico Insurance Company Limited

Source: IRA Insurance Industry Annual Report (2022)

Appendix iii: Graduate School Research Authorization



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/21094/12

Date: 25th February, 2021

The Director General,
National Commission for Science Technology & Innovation
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR IRERI L. MUKAMI-REG. NO. D53/CTY/PT/21094/12

I write to introduce Mukami who is a Postgraduate Student of this University. The student is registered for a MBA degree programme in the Department of Accounting & Finance in the School of Business.

Mukami intends to conduct research for a MBA Project Proposal entitled "Firm Characteristics and the Financial Performance of Selected Insurance companies in Kenya"

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

EM/cao

