

**THE EFFECTS OF FINANCIAL FRAUD AND LIQUIDITY ON
FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN
KENYA**

BY

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DECLARATION

This research project is my original work and has not been presented for the award of degree in any other university or institution for any other purpose

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DEDICATION

I dedicate this work to my wife Julie Wangechi and my daughter Shirlene Wangare for their unwavering support

ACKNOWLEDGEMENT

First and foremost, I thank God for being with me during the entire period of study, am also indebted to Mr Odipo for his guidance which made the project a success. Lastly I thank all my friends whom in one way or another helped me to finish my MBA

ABSTRACT

Fraud in Kenya's insurance industry has increased in the recent past and is likely to increase in the coming days. According to KPMG (2015) Kenya was unable to quantify the detected volume of policy fraud and had a low number of detected claim fraud compared to Tanzania but higher than Uganda. Fraud if left unchecked will have dire consequences on the liquidity and consequently the financial performance of insurance companies. The main purpose of the study was establishing effects of financial fraud as well as liquidity on the financial performance of insurance companies in Kenya. The research adopted a descriptive research design. Regression analysis model was used in which the dependent variable was the ROA. The independent variables were the liquidity ratios and the annual fraud loss. The multiple regression was later adopted to determine how dependent variable relates to ROA. The results showed that insurance's financial performance variable return on assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficient imply that financial fraud loss and liquidity ratios had a strong and significant influence on financial performance of insurance companies for the period considered the study recommends that insurance companies in Kenya should strengthen their control systems, establish antifraud unit and strictly adhere to liquidity-trade off

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LIST OF ABBREVIATIONS

AKI	Association of Kenya Insurers
CBK	Central Bank of Kenya
CMA	Capital Market Authority
EAC	East Africa Community
GDP	Gross Domestic Product
IFIU	Insurance Fraud Investigation Unit
IRA	Insurance Regulation Authority
KES	Kenyan shillings
KSH	Kenyan Shillings
NSE	Nairobi Security Exchange
NHIF	National Health Insurance Fund
ROA	Return on Assets
USD	United State Dollar

CHAPTER ONE

INTRODUCTION

1.1 Background of study

Incidence of fraud in Kenyan insurance industry has risen at an alarming rate over the past few years. The role that fraud has on insurance field is usually underestimated and to a greater extent under reported. From public domain fraud has greatly increased in the last couple of years with claims value, the surrender value being the genesis of this vice. Many stakeholders feel that there is no other better time apart from now for insurance anti-fraud unit to mitigate, detect and deter fraud and bring perpetrators to books. Fraud is an intricate and dynamic matter which ultimately affects all players in the insurance industry. It results to huge losses of revenue and increased cost of operation. The end result is increased premiums (Makove 2015)

There is a fear that if the increasing level of fraud in the insurance sector is not mitigated, it will pose a huge challenge in liquidity, stability and survival of the sector. Masinga (2000) points out that an insurance sector that is doing well will boost the economy since savings will be encouraged and at the same time acts as a safety net for business ventures. This will enhance individual as well as the country's productivity. Makove (2015) noted that insurers return is negatively affected by fraud which may compromise position of their liquidity. For this financial gap to be filled insurers normally increase premiums. Insurance fraud is deceit intentionally done by agents, employees, a broker a claimant or even the policy holder (Some 2012). A study which was done by KPMG in the year 2015 opined

that Kenya was unable to quantify the detected volume of policy fraud and had a low number of detected claim fraud cases compared to Tanzania but higher than Uganda. It did however had the highest scores for estimated percentage of policies and claims that are fraudulent. This would support the perception there is fraud in Kenya but it also suggest it is largely undetected especially as fraud is rising in both areas, namely policy and claims.

1.1.1 Financial Fraud

Fraud is a deliberate trick or a deliberate deceit practiced so as to gain undeserved and unnecessary advantage over others (Olufide, 1994). It is the usage of deception so as to gain undue benefits and at the same time escaping obligations thus causing a loss to the other party (Damage and Hanid, 2005). In its broad definition it is to act intentionally mainly manipulating transactions which commonly are financial in nature so as to achieve a financial gain, carried out by highly knowledgeable officials. Fraud commonly occurs in the course of purchasing, utilizing as well as underwriting a cover. It is normally triggered by insatiable greed. Fraud leaves a trail of destruction to victims, customers who are honesty end up paying higher premiums because of dishonesty by others. It is for this reason insurance companies' and other stake holders should do all they can to mitigate and minimize this major problem

1.1.2 Liquidity

Liquidity has various definitions depending on the context. According to Farlex Financial Dictionary (2012).It can be said to be having a huge possession of cash or even an asset that can be simply converted to cash. Companies ability to meet its liquidity needs depends

on whether it has stock that are easily transferable or has high liquid altogether. Transferability together with liquidity, therefore, becomes an integral component for transactions. Liquidity needs therefore implies that a financial asset should be at owners disposal within the short while. The transferability threshold requires that financial asset should be portable, be par and be in the form readily acceptable by other relevant parties (Sinkey, 1998). According to Barad (2010) the term liquidity can be said to be the company or companies' ability to fulfill the expected or even some of unexpected cash needs. Bhunia (2010) opined that liquidity has a crucial role in proper operation of an organization. An organization is therefore supposed to ensure it won't suffer from among others , having excess cash or lack of it altogether so that firm's short term cash obligation is met. Panigrahi (2013) noted that if there is improper management of cash, it (cash) will be tied or just idle which disadvantages an institution. This decreases company's liquidity and at the same time company will not be able to generate income from productive areas. Brealey (2012) was of the view that liquidity ratio, can also be referred to as quick ratio or even cash ratio. Current ratio is therefore the comparison of current assest totals to totals of current liabilities .This ratio manifest the level of liquidity. A drastic decline may be an indication of troubled liquidity position.

1.1.3 Financial performance of insurance in Kenya

There has been an increasing trend in most of core indicator of well performing insurance companies and the entire industry in the year 2014. Total premium rose up to Ksh 160.4 Billions in 2014 against Ksh 133.49 B in the previous year i.e year 2013. This represents a 24.6% increase which is commendable. In assets platform the industry recorded Ksh

430.55 B by the end of year 2014 a rise from Ksh 366.25 B recorded in the year 2013. This is equivalent to 17.7% rise which is a positive growth. Investments also went up to KSH 355.23 Billion in 2014 which 83% compared to previous year (Economic survey, 2015)

A lot of gains have been realized in the recent years with premium experiencing a double digit growth. However all is not rosy, penetration decreased to 2.8% in the year 2014 against 3.4% experienced in 2013, this can be attributed to GDP rebase. The rate of penetration achieved is lower compared to that of Namibia which stand at 7.25%., lower than that of Morocco which is 3.3% , lower than for South Africa at 14% and even Mauritius which stand at 6.2% (Swiss Re, 2015). The loss ratio slightly increased in the year 2014 to 60.23% compared to 2013 which was 58.55%. Medical claims which are a segment of general business registered highest ratio of 77.7%. The class of aviation recorded biggest drop of claim ratio at 22.5 % (2013; 182.8). Those classes that recorded more claim exceeding the average included motor vehicle at 73%, medical at 78% and lastly engineering at 62%

In general, general business has been experiencing a rising trend for the last five years. In the year 2014 it recorded KSH 7. 5 billion which is 32.6% growth compared to the year 2013. overall industry ratio of claims increased to 58.6% in 2014 from 55.65% in 2013

1.1.4 Effects of financial fraud and liquidity on financial on insurance's performance

Adebisi (2009) opined that when fraud is successful it leaves a trail of psycho-social and financial effects on the victims. Fraud destroys customer loyalty if they are not themselves perpetrators. Customers confidence is lost whereas trust is broken, the relationship

becomes soar (Krummeck, 2000). If fraud is left undeterred it will ultimately affect the companies' liquidity and its financial wellbeing. Ross, Westerfield & Jordan (2000) found that the relationship between profitability and liquidity is negative. This is a dilemma and therefore managers have to strike for a balance hence there is a need for liquidity – profitability trade off

1.1.5 Kenya insurance industry

Insurance can be said to be a contract between the insurer (insurance company) and the insured. The insured pays a certain amount of money to the insurer and in return promised to be compensated against the risk of financial loss. Resulting from this the policy holder gets peace of mind and can therefore concentrate with their core business. Insurance companies operate under various principles but of great interest is indemnity that is to restore one to his original financial position. Insurance companies are also financial institutions and they are under ministry of treasury, they do provide financial services thus they are an important sector of the economy. Currently there are 47 Insurance Companies, 3 Reinsurance Companies 198 Insurance Brokers, 4 Reinsurance Brokers, 29 Medical Insurance Providers, 133 Insurance Investigators, 108 Motor Assessors, 5155 insurance Agents, 24 insurance Surveyors, Two Settling Agents, Eight Risk Managers and Twenty Loss Adjusters,

National Hospital Insurance Fund (NHIF) is a state corporation operating under NHIF Act (1998). It's mandated to offer medical cover to its registered members and their respective registered beneficiaries'. Up to June 2014, the fund collected KES 9.32 billion in member

contributions. The fund paid out KES 5.52 billion as claimed benefits to members and their beneficiaries within the same period. The fund size was KES 12.30 billion as at the end of the same period. The operations of the fund were supported by a balance sheet of KES 16.57 B as at June in the year 2014. NHIF is not regulated by the Authority.

The insurance industry has members association known as the Association of Kenya Insurers (AKI). The functions of IRA as per the Act are supervision, development and regulation of the whole industry in Kenya. The industry total assets went up by 19.2% that is from 359 billion shillings in Dec of the year 2013 to 425 billion Kenyan shillings Dec 2014. Assets for generating income also went up to 353.5 B KSH, This being 19.25% increase. As in most cases with African countries, the insurance market in Kenya is greatly made by the non-life segment. The segment of medical has been steadily penetrating over the past few years but majority of people have not given it a priority.

In the Swiss Re (2015) report non-life contributed 66.3% of all premiums. This percentage is however low compared to 69.5% it contributed in the year 2013. Its evidence that the major component of non-life at 41% is car insurance where 25% is commercial car while 16% are private one. Medical class constitute 23% while on the other hand fire has got slightly over ten percent. The industry realized 21.3% growth in gross premium up to 157.89 billion Kenyan shillings in 2014 compared to 131.1 billion KSH in 2013. The income from premium under life segment was 56.55 B Ksh. It's clear that non-life is the major booster for the industry. Re-insurance was also not left behind since premiums rose to Ksh 16.42 billion compared to 12.49 billion previous year. This was a 31.66% increase.

The general business said to be making losses because of settling huge amount of claims yet the premium received is not increasing at similar rate (IRA, 2014). The most notorious cause for these increased claims is fraud mainly motor and medical areas.

In EAC Kenya still stand strong as the biggest and largest market, this is has seen local insurance companies spreading across East Africa. A lot o challenges however is facing this industry with some companies having little capital which limits their expansion.as a result of capital inadequacy they are unable to underwrite major and big projects such as SGR

With proposals in the 2015/2016 National Budget Statement to increase the paid-up capital to KES 400 million for long term insurers, KES 600 million for general insurers and KES 1 billion for reinsurers, it is expected that this will further enhance industry stability especially as the Authority implements risk based supervision. The outlook of the industry is promising with more people knowing the benefits of insurance.

1.2 Research Problem

Insurance industry in Kenya has faced unprecedented rise in fraud over the past few years. According to the IRA, fraud is one of the major bottleneck insurance are facing. It's threatening the survival of firms as it increases cost of doing business. To many companies if fraud is not detected early it will have a huge financial implication and because of its white collar nature eliminating difficult and also an expensive affair (Makove, 2015)

Companies are really threatened by this risk since it can drive them out of business and at the same time affect their liquidity position. Fraud affects organization from many quotas

i.e financial wise, operation wise and relationship with other players. The greatest effect is however loss of customer goodwill and customer loyalty is

AKI (2014) found around 20% and 40% of the total claims made are likely to be fraudulent whether by misrepresentation of facts or otherwise. These fraudulent activities are normally carried out by clients, by employees or collusion between individuals within or outside the organization. Also noted was that 21% of motor insurance claims are likely to be fraudulent and on the other hand in the medical sector thirty percent to forty percent are also likely to be fraud. The degree of fraud varies between companies and countries. Those companies and country with sophisticated technology are likely to detect fraud earlier than those without. In Europe both detected fraud as well as undetected one is estimated to be 11% of all claims paid. ABI found that, although insurers are unearthing a lot of fraud, it is approximated that about £1.99 billion is undetected each year.

In Finland a study conducted by FFI (2012) concluded that about 29% of adult admitted knowing a person who has swindled his company .Maaka (2013) carried out a research on how liquidity risk relates to performance in Kenyan banks. The findings were that profits of banks in Kenya are negatively affected by increase in liquidity gap. The study recommended that further research on other financial sectors, for example, insurance companies.

Many studies that examined fraud in insurance are mostly qualitative in nature and focus on the details of types and causes of fraud, and strategies of responding to fraud, without providing compelling empirical support. This is the gap in literature that this study is

attempting to fill by empirically investigating the effects of fraud and the effects of liquidity on performance of Insurance companies' in Kenya

The following research questions will be answered at the end of the study

- i. To what extent does financial fraud affects performances of Insurance Company's?
- ii. How does liquidity position affects insurance performance?

1.3 Objectives

General objective of the study is to find out effects of financial fraud and liquidity on the performance of the insurance companies' in Kenya.

Specific objectives of this study were;

- i. Determining effects of fraud on the financial performance' of insurance companie's
- ii. Determining effects of liquidity on insurance financial' performance

1.4 Significance of Study

Findings of this study would contribute to measuring firm's financial position though its profitability ratios.

Employees will find this study useful and will appreciate the best liquidity level that can meet their daily liquidity

AKI will utilize the findings to appreciate the extent in which the fraud affects their company's financial performance.

The Insurance Regulatory Authority (IRA) will find this study useful in putting measures that will be practical in apprehending the vice.

The general public is the immediate beneficiaries of insurance products. It's the general public who will enjoy the improved services from insurance industry that is devoid of

fraud. It will help policy holders and potential policy holders to know exactly what to expect in their dealings with insurance companies

Findings of the proposed study would act as a guide to Finance managers in insurance companies as well as other sectors to make investment decisions that would satisfy stakeholders interests with regard to liquidity and profitability

Finally the study will benefit the scholars and researchers in that they will be able to expand their knowledge on the impact of fraud in the insurance sector on the financial position of insurance companies. The study will also be useful to researchers as a secondary data to review the literature.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter dealt with relevant literature from previous studies that have been carried out on the fraud in insurance sector. This chapter focuses on three substantive aspects, first, the theoretical reviews of conceptual theories advanced in the field of fraud, the causes of insurance fraud and the types of insurance fraud.

2.2 Theoretical Framework on Fraud

There are quite a number of relevant theories on fraud that are relevant to this study. The theories chosen are those that are in relation with the area of this thesis

2.2.1 Fraud Triangle Theory

Donald Cressey (1973), in his opinion fraud takes place as a result of the fundamental issues. They include; rationalization, the second one is pressure and the last one is opportunity. Trusted people turn to be violators of the trust and position given to them by institutions or by authority. Individuals will misuse their position for personal gains.

2.2.2 Fraud Diamond Theory

According to Wolfe and Hermerson (2004), fraud is not likely to take place when the fraudster does not have the capability to do so even if opportunity arises. It is the personal traits and characteristics that enable an individual to execute fraud. In other words even with the three components of the fraud theory and there isn't capability and ability no fraud will take place. Doors for fraud may be wide open but capability must be there so as to recognize such doors are open and now someone can commit fraud

2.2.3 White collar crime theory of fraud

The proponent of this theory is Edwin Sutherland, the year 1939. Here, fraud done by an individual of respect, a person of esteem in the society. A person, who commands great respect probably because of his occupation and the society would not expect him to commit fraud, turns to be the perpetrator. Normally you would expect fraud to be committed by individual with low esteem but it turns opposite. In other word most of the perpetrators of fraud are individual who commands respect and trust.

2.2.4 Differential Association

This theory was put forward by Edwin (1883-1950). It simply means fraud is learnt just like other discipline. Fraudulent behavior is not genetic, it's learned from intimate personal groups. Fraud costs are passed on to society through criminal activities funded by the fraudulent gains

2.2.5 The Anomie Theory on Fraud

As per this theory, members of the society who feel are neglected are likely to engage into vices so as to get livelihood. They feel that the society and the community does not care to provide them and thus they can use all means available including defraud activities. Such members tend to be aggressive and are likely to also engage in criminal activities such as terrorism. In other word they can use any means legal or illegal to provide for themselves

2.3 Causes of fraud

Adebisi (2009) suggested that there various types of fraud depending on several determining factors. The common being

2.3.1 Financial Pressure /Incentive Causes of Fraud

This refers to unacceptable behaviours such as fraud. Every fraud perpetrator have insatiable force to execute such vices (Abdulahi, 2015). This pressure can be non financial, financial or both .However the pressure to commit this vice is not at all times real. It is to a greater extent perceived (Albrecht, 2006). Financial pressure is mostly the common factor that make to one engage in an evil action. Lister (2007) found that financial pressure as a major determinant factor for many committing fraud. It has been found that the greed is what leads to crime.

2.3.2 Perceived opportunities

Hartly and Kelly (2011) noted people will take any perceived advantage and opportunity available to them to commit crime. Regardless of their social standing or the level of wealth they have, they are likely to commit fraud once they get such opportunity (kleptomaniacs)

2.3.3 Legal Causes of Fraud

Sometimes a country legal and judiciary system can encourage fraud. This is because the wheel of justice takes long time to spin. At the same time most fraud cases are bailable and since the fraudster have got money they buy their freedom. Corruption in the legal fraternity and weak prosecution process also leads to acceleration of fraud. Documents that are supposed to form the base for prosecution are always said to have lost and at the end the cases collapse due to lack of evidence. The collusion between the one who have committed fraud with police and judiciary employees makes it hard to nail down the thief and at last will be discharged for insufficient evidence.

2.3.4 The management Causes of Fraud

Management incompetency is likely to lead to fraud. The inability to make sound decision and recommendation is also likely to trigger fraud. Their inaction or action influences the level of fraud the organization is likely to achieve. On circumstances where an exercise such as employment of staff was done without following due process fraud is likely to take place in future since the characters of such staff was not authenticated .Poor remuneration especially to the low cadre of employees who feels their pay is compromised against that of top executive are likely to perpetrate fraud.

2.3.5 Rationalisation

Human beings commit fraud and convince consciously or unconsciously they have valid reasons for improper behaviors trying to justify fraud committed. For instance rationalization to justify fraud for low salaries, fraud committed by others such that if others commit fraud the own fraud is justified.

2.4 Types of Insurance Fraud

Fraud in this context of the study can be said to be deceiving or even tricking the insurance company so as to enjoy the benefits that one is not entitled. In Kenya fraud occurs at different stages from application of policy up to compensation. Settling of claims that never occurred or over exaggerated claim is among other fraud that insurance companies are facing nowadays. For purpose of this study, fraud will be grouped into three groups.

2.4.1 External vs. internal fraud

External fraud is fraudulent activities on part of outsiders. These outsiders may be the policy holder, the claimant or applicants who normally colludes with insiders (Viaene, 2004). This covers among others providing false statement and submitting bogus claim. It also include cases of professional providers of services such as doctors billing insurance for non existent services or charging insurance for the same services more than once

Fraud committed by insiders such as employees, managers or a person within the institution is internal fraud (dedene, 2004) this may occur by selling insurance products without proper licenses, embezzlement of insurance funds and obstruction of regulatory body of investigations.

2.4.2 Underwriting vs. claims fraud

Fraud can be committed both at underwriting as well as claim time. According to Viaene (2014) the underwriting fraud happens mostly during contract renewal such as dissimulation of information during application, the application fraud. It can also be obtaining coverage at a lower premium, the premium fraud. The policy holder is required to inform the insured on the changes of insured risk, failure to do so result to claim fraud.

2.4.3 Hard fraud VS Soft Fraud

Hard fraud is a preplanned scheme to defraud the company. It occurs with the collusion of insider. For instance a patient may exaggerate his hospital bill or hospital claiming more amount than the patient has used. (KPMG, 2015). According to KPMG (2015), this is pre-meditated fabrication and /or fraudulent misrepresentation of material information.

Soft fraud on the other hand does not require prior planning to fraud the company. One takes an advantage of a situation that may arise. Incase of an accident, the nature of injuries may be exaggerate so as to earn more claims that it should be. In such a case the patient may over exaggerate the situation to earn undue benefits.

2.5 The conceptual framework

This ia a conceptual scheme in which the researcher manipulates the independent variable to achieve certain goals (Mugenda and Mugenda, 2003). For the case of dependent variable, the researchers use it to show how it is influenced by the changes or variability of independent ones.

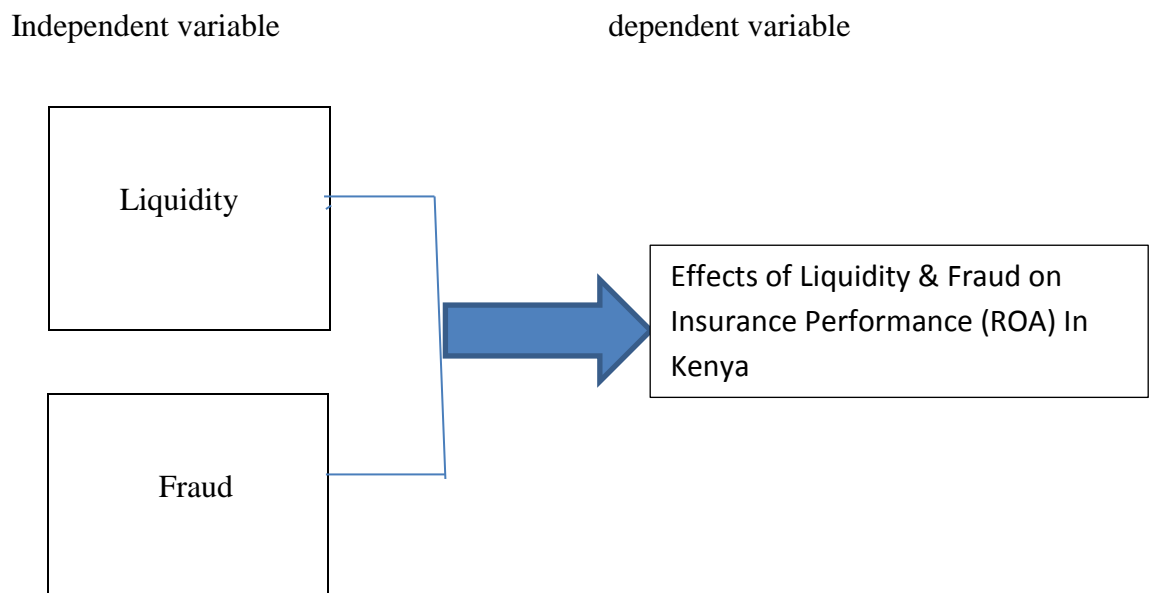


Figure 1

2.6 Empirical Review

This chapter reviewed literature from other studies and work by other scholars. This will be used to make a comparison and establish variations and similarities between this study findings and what literature say

Eljelly (2004) conducted a study examining how liquidity and profitability relates as measured used the current ratio. He found that the relationship between profit and liquidity as given by current ratio as negative

McGuire et al (2012) indicated that considerations to be put in place by insurers before pricing include the age of the plan members, size of the group to be covered and the past claims experience if available. He supported his arguments by indicating that on the

basis of age, more premiums are charged on the older members to take care of the chronic diseases and their low immunity. From this the insurer will be able to pre-determine how the claims utilization of the members will look like and this will assist them when pricing and in turn be able to pay for any claims that occur and at the same time be able to make profits.

Maxwell (2008) confirmed that medical fraud is the most common type of fraud where the plan members exaggerate illness to collect additional health benefits or where the member share the medical cards with non-members.

Macedo (2009) revealed that it was difficult for underwriters to get accurate and comprehensive data from the clients especially on the moral risk of the client which is related to applicant's reputation, financial position or criminal record.

Cutler and Zeckhauser (1997) indicated that adverse selection can lead any insurance plan to be unprofitable and eventually fail as a result of the insurer having a pool of more risky cases which can be further compounded by fraud.

Bali .S .et.al (2010) found a rise in number of fraud especially in the last recent years. The study revealed that fraud is taking place in the areas of surrender and claims than anywhere else

Rose et al.(2012) in their study opined that fraudsters are more organized and accurate in their trade than even auditors themselves. They singled out that auditors adapting pattern used by fraudster are likely to improve assessment of risk.

Idowu (2009) in his research on how to minimize frauds in Banks in Nigeria found there were several factors contributing to fraud. Among these factors were poor conditions for working, management policies which are not favorable, staffs overstaying in one job thus they feel frustrated as well as low remuneration.

Wambu (2013) did a research on how profits and liquidity of commercial banks and in particular here in Kenya relates, the study whose aim was to find if liquidity levels affects their profitability. The study consisted all banks in the year 2008-2012. He used descriptive design and the profits were measured by ROA. The independent variable was current ratio.

The findings was that liquidity and profitability relates positively and thus liquidity is a significant determinant of banks profitability for the period under study

Maina (2011) concluded that there is weak relationship between profits and liquidity. He found that other than quick ratio all other independent variables have got a strong relation with ROA

Ebimobowei (2011) in his study of forensic accounting in detection of fraud Port Harcourt, revealed that forensic accounting minimizes the level and the effects of fraud in banks. Boadi&Lartey (2013) in their study of profits determinant in Rwanda insurance companies from 2005 upto 2010 by use of ordinary square showed that liquidity and profitability has a negative relationship. The study also showed that the leverage affects profits of Ghana insurance companies

Holmes S.A et. Al (1999) remarked that insurance industry was very cautious on internal control measures than many other fields so as to decrease the level and the magnitude of fraud. They found that insurer's detection of fraud was by suspicion or complains by clients. This is because the execution of fraud affected small number of accounts and involved little interference of internal control system

Baradhiway .C. (2011) enumerated different frauds. Some are clients related and involves falsifying documents at different stages, giving false information on ones health, money laundering over exaggeration of claims or even fake claims

Rose .S. (2008) highlighted various types of insurance fraud and their manifestation as well as measures of detecting, mitigating and finally for prevention of fraud.

2.7 Summary of literature review

Various studies have been done on insurance fraud. from most of the studies , it is evident the studies have largely dealt on the type of frauds, the perpetrators ,methods of detecting fraud as well as preventing fraud without much details on fraud and liquidity. This is the gap in literature that this study is attempting to fill by empirically investigating the effects of financial fraud and liquidity on the financial performances of insurance companies in Kenya

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter focused on research design, the population used, how data was collected and the method of data analysis used.

3.2 Research design

This study relied on a descriptive design to evaluate effects of fraud as well as the effects of liquidity on insurance companies' performance. Descriptive design figures out on where, on what and on whom of the research (schindler, 2011). It describes a population with respect to important variables. Descriptive research enables the researcher to describe the existing relationship by using observation and interpretation methods. It provides the researcher with the appropriate methodology to illustrate characteristics of the variables under study

3.3. Population of the Study

According to Mugenda (2003), population refers to group of object(s) or a group of people or even a group of events that share some common characteristics. Sim & Wright (2000) defines a population as the group of items that the researcher has interest on. In this study the population consisted of all 47 licensed and operational insurance companies in Kenya from the years 2011 to 2015.

3.4 Data Collection

The study used data which are secondary in nature for analysis. The data included annual liquidity ratio for insurance companies, the annual fraud loss and the annual ROE as a measure of performance. The data on annual fraud loss (annual reports on the statistics and trend of frauds) was obtained from Insurance Fraud Investigation Unit (IFIU) and IRA. The data on liquidity ratios and ROE was collected from the NSE, IRA and the AKI websites. The study covered 5 years 2011-2015

3.5 Data Analysis

This study used regression analysis model in which the dependent variable was the financial performance of insurance companies in Kenya (ROA) where as the independent variables was the annual liquidity ratios and the annual fraud loss. Later Multiple regression was in determining how each of dependent variable relates to ROA.

The regression analysis took the form

$$\gamma = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

Where;

γ = The financial performance of companies as expressed using ROA, ratio of after tax profits to total assets

X_1 = liquidity ratio; this is current assets compared to current liabilities.

X_2 = fraud loss ratio, the ratio of amount lost to fraud to the total amount involved.

E_t = Error term.

β_0 = The constant of regression

The *t-test* at 95 % confidence level was used for determining statistical significance of β_0 as well as coefficient values. The regression significance was determined by F-test .while R^2 , which is coefficient of determination determined how dependent variable is how manipulated by independent ones.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter focused on how data collected was presented and analyzed so that it has meaning. The regression analysis was obtained to show independent variables influences the dependent variable. The presentation and the analysis of the data was done with comparison of other similar studies done on the subject matter of this study.

4.2 Analysis of Data and Presentation of Findings

4.2.1 Descriptive Statistics

In determining the effects of financial fraud and liquidity on performance of Kenya's insurance companies, the research first evaluated their financial performance variables under consideration i.e. ROA as the dependent variable and annual liquidity ratios and annual fraud loss as independent variables influencing the financial performance. Their mean, their std dev., minimum values as well a their maximum values as in the table below

Table 4.0

Summary statistics on effects of financial fraud & liquidity on performance of the Insurance' Co. in Kenya (2011-2015)

Variables	N	Mean	Std deviation	Minimum	Maximum
Annual					

Liquidity ratios	47	2.725	0.7253	0.031	8.183
Annual fraud	47	24.312	7.836	9.025	38.232
Loss					
Return on					
Assets (ROA)	47	1.7336	0.02493	-1.2783	11.6427

Source: Research Findings

From the study findings annual liquidity ratios recorded mean of 2.725 while std dev. was 0.7253. Minimum and maximum values are 0.031 and 8.183 respectively. Annual fraud loss had a mean percentage of 24.312 with a standard deviation of 7.836 with minimum and maximum values of 9.025 and 38.232 respectively. Further ROA recorded mean of 1.7336 where as std dev. had 0.02493. Over that period covered ROA recorded a minimum value of -1.2783 and maximum value of 11.6427 respectively. The positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA.

4.3 Correlation Analysis between Financial Fraud and Liquidity and insurance performances

On this particular area , the study tested the level of association between fraud & liquidity and the level of effects they have on ROA. From most of previous studies there is a positive relationship between the financial fraud and liquidity and financial performance of insurance companies.

Table 4.1; The correlation between financial fraud and liquidity and financial Performance of insurance company's in Kenya

Variables		Return on Assets
Financial fraud loss	Correlation	0.678
	p- Value	(0.00)
Liquidity ratios	Correlation	0.725
	p- Value	(0.00)

Source; Research findings

The model therefore becomes

$$ROA = 0.245 + 0.725X_1 + 0.678X_2$$

The table above shows correlation analysis on the insurance companies' annual liquidity ratios, annual fraud loss and ROA. The finding shows that ROA has been significantly affected by liquidity ratios and fraud loss with positive correlation of 0.678 and 0.725 respectively. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of financial

performance of insurance companies in Kenya for the period considered. The statistics were done at 95% confidence levels.

Table 4.2, T-test; 2-sample taking equivalent variances better financial performing Insurance companies and poor financial performing insurance companies

	(Better financial performing Co)	(Poor financial performing Co)
Mean	0.06307	0.023464
Variance	0.00412	1.62483E-08
Hypothesized Mean Difference	0	
P (T<=t) one tail	0.0043	
t- Critical 1 tail	2.6170	
p (T=t) 2 tail	0.01110883	
t-critical 2 tail	3.131	

Source: Research Findings

From the t-test results, the better financial performing banks recorded a mean of 0.06307 while the poor financial performing banks recorded a mean of 0.023464. However, the variance for the better financial performing insurance companies and poor financial performing insurance companies are 0.00412 and 1.62483E- 07 respectively. Furthermore, at two- tailed, the t- calculated of 3.131 is seen to be greater than the t-tabulated of 2.6170

The study further tested hypothesis on the difference between annual liquidity ratios and annual fraud loss and insurance companies' financial performance. The study findings are as shown below.

Table 4.4 Annual liquidity ratios and annual fraud loss vs. Insurance companies' financial performance

	Insurance companies' Performance
Annual liquidity ratios pearson correlation	0.082
Sig (two tailed)	0.00
N	47
	Insurance companies' financial performance
Annual Fraud loss person correlation	0.703
Sig (two tailed)	0.00
N	47

Source: Research Findings

Pearson coefficient at 0.082, P-value 0.000 indicates a positive, a strong and a significant relationship on annual liquidity ratios and ROA of insurance companies' in Kenya. Furthermore Pearson coefficient 0.703, P-value 0.000 reflects strong and sufficient significant on annual fraud loss and ROA of insurance companies'. From the findings the null hypothesis is rejected and alternative hypothesis that there is relationship between fraud & liquidity and ROA of insurance companies in Kenya is accepted.

4.4 Interpretation of findings

From the findings the mean of annual liquidity ratios was 2.725, standard dev. was 0.7253. Minimum and maximum values are 0.031 and 8.133 respectively. Annual fraud loss had a mean percentage of 24.312 with a standard deviation of 7.836 with minimum and maximum values of 9.025 and 38.232 respectively. Further ROA mean was 0.2336 whereas standard dev. was 0.024. Over that period covered ROA recorded a minimum value of -1.2783 and maximum value of 0.8127 respectively. The positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA. This shows that ROA was affected significantly by liquidity ratios and fraud loss with positive correlation of 0.688 and 0.705 respectively. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of ROA of insurance companies' in Kenya for that particular period considered. The Pearson coefficient which is 0.725 As well as P-value 0.000 indicates a very significant, positive and strong relationship on annual liquidity ratios and insurance performance. With 0.678 as Pearson coefficient and 0.000 as the p-value is an indication there exist a relationship on annual fraud loss and insurance financial results. Arguing from

these results, alternative hypothesis is acceptable that financial fraud and liquidity influences ROA of insurance Co.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter the study provides the findings of this study. First section provides summary and the other section provides conclusion of study, the limitations of the study, suggestions for further research and recommendations in that order.

5.2 Summary

In determining the effects of liquidity and fraud on performance of Kenyans insurance Co's the study first found it necessary to evaluate the performance of the insurance companies' financial performance variables under consideration i.e. ROA as the dependent variable and annual liquidity ratios and annual fraud loss as independent variables influencing the financial performance. The mean, std. dev., minimum as well as their maximum values were evaluated. From the findings the positive values of the variables indicate that they are statistically significant in influencing financial performance of these companies. The study further measured the degree of association between financial fraud and liquidity and the magnitude of the influence on their ROA. The findings showed that insurance's ROA is significantly influenced by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of financial performance of insurance companies in Kenya for the period considered. The statistics were done at 95% confidence levels. From the Chi-square results, the better financial performing insurance companies recorded a higher mean as compared to the poor financial performing insurance companies.

The study showed a strong, a significant and lastly a very positive relationship between ROA and the liquidity ratios. It also showed a strong, positive relation on annual fraud loss against ROA of concerned companies. based on findings then the study obliged not to accept null hypothesis that ROA is not affected by both liquidity and fraud and therefore accepts the alternative hypothesis that propose ROA is greatly affected by both liquidity and fraud to a very great extent.

5.3 Conclusion

The mean, the deviation, the min values and max values of annual liquidity ratios and annual fraud loss were determined. From the findings the positive values of the variables indicated that they are statistically significant in influencing financial performance of ROA. The result showed that insurance company's financial performance (ROA) is significantly influenced by liquidity ratios and fraud loss with positive correlation. From the Chi-square results, the better financial performing insurance companies recorded a higher mean as compared to the poor financial performing insurance companies.

However, the variance for the better financial performing insurance companies and poor financial performing insurance companies showed statistically significance. Furthermore, at two- tailed, the t- calculated was seen to be greater than the t-tabulated in carrying out carried out the hypothesis testing between annual liquidity ratios and annual fraud loss and insurance companies' financial performance. The findings indicated in both cases of fraud and liquidity a not only strong relationship with companies ROA but also a substantial and a positive one. This led to the rejection of null hypothesis that the independent variable of the study i.e. liquidity and fraud don't relate with performance and on contrary the

findings led to acceptance of alternative hypothesis that liquidity and fraud relates or influences the insurance's performance in Kenya

5.4 The Recommendations

This study recommends insurance companies in Kenya to put in place fraud detection mechanisms by setting up an efficient, reliable and working fraud detection department to oversee all the transactions that are considered prone to fraud to minimize the vice for them to maximize profits for better financial performance.

The study further recommends that liquidity ratios of insurance companies should be taken in to consideration to make sure that the available net liquid assets meets the short term liabilities and at the same time avoid a lot of liquid cash. Therefore, liquidity – profitability trade-off is necessary

The finance department should continuously work with other departments to ensure that liquidity ratios remain manageable under the financial period to boost their gains for positive financial performance outcomes.

This study can be repeated with a wider population such as East African Community since the effects of fraud has affected performance of insurance companies in the entire East African region.

5.5 Limitations of the Study

Some insurance companies provided insufficient information concerning fraud since they felt that it was too confidential providing such information in their website on other platforms.

This study focused on Kenya only and for a period of 5 years. It is not known how the results would have turned out if the study was extended to other countries, say, in East Africa, in the whole of Africa or in the Sub-Saharan Africa.

Financial fraud and liquidity keeps on evolving and metamorphosing over years therefore the study may not authoritatively reflect effects of financial fraud and liquidity ratios across the insurance companies' in Kenya over the years under review.

5.6 Suggestions for further study

The study suggests that there is need for similar study covering duration of more than five years. A study for longer period of 10 to 15 years would be recommended, financial institution such as banks to be considered.

A study with more than one variable is recommended, this is because this study used only two independent variables in determining insurance financial performance.

The study relied on data secondary only and because of weaknesses associated with past records of secondary, the secondary data may not be authoritative as primary data as secondary data usually does not capture current issues. This study, therefore, recommends that this study be done bearing in mind the use of primary data

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www.insuranceeurope.eu

www.nhif.or.ke

www.knbs.or.ke

APPENDICES

Appendix 1: List of insurance companies in Kenya

1. AAR Insurance Kenya
2. APA Insurance - Part of Apollo Investments Company
3. Africa Merchant Assurance Company - AMACO
4. Apollo Life Assurance
5. [AIG Kenya Insurance Company](#)
6. [British-American Insurance Company Kenya Limited](#)
7. [Cannon Assurance Company Limited](#)
8. Capex Life Assurance Company
9. [CIC General Insurance](#)
10. [CIC Life Assurance](#)
11. Continental Reinsurance
12. Corporate Insurance Company
13. Directline Assurance Company
14. East Africa Reinsurance Company
15. Fidelity Shield Insurance Company
16. [First Assurance Kenya Limited](#)
17. [GA Insurance Company](#)
18. Geminia Insurance Company
19. ICEA LION General Insurance Company
20. ICEA LION Life Assurance Company

21. Intra Africa Assurance Company
22. Invesco Assurance Company
23. Kenindia Assurance Company
24. Kenya Orient Insurance
25. [Kenya Reinsurance Corporation](#)
26. [Liberty Life Assurance Kenya Limited](#)
27. [Madison Insurance Company Kenya](#)
28. Mayfair Insurance Company
29. Mercantile Insurance Company
30. [Metropolitan Life Insurance Kenya](#)
31. Occidental Insurance Company
32. Old Mutual Life Assurance Company
33. Pacis Insurance Company
34. [Pan Africa Life Assurance](#)
35. Phoenix of East Africa Assurance Company
36. Pioneer Assurance Company
37. [Real Insurance Company](#)
38. Resolution Insurance Company
39. Takaful Insurance of Africa
40. Tausi Assurance Company
41. [Heritage Insurance Company](#)
42. [Jubilee Insurance Company Limited](#)
43. Monarch Insurance Company

44. Trident Insurance Company
45. [UAP Insurance Company](#)
46. [UAP Life Assurance Company](#)
47. Xplico Insurance Company