International Journal of Management and Commerce Innovations ISSN 2348-7585 (Online)
Vol. 4, Issue 2, pp: (219-228), Month: October 2016 - March 2017, Available at: www.researchpublish.com

Effect of Firm Specific Factors on Medical Insurance Fraud in Kenya

[1] JUSTUS MAUNDU, [2]DR. WILLY MUTURI

Abstract: **This research discussed medical insurance fraud in Kenya with a primary focus on investigating the effect of firm specific factors on medical insurance fraud in Kenya. The study was guided by four independent variables which included: ICT, internal control, professional experience and motivation of employees. The study adopted a descriptive research design. The target population of interest in this study comprised of all 170 unionisable staff members as well as the management staff of the selected insurance companies. The study utilized a sample size of 65.Primary data was collected using semi structured questionnaires containing both closed and open ended questions to allow variety. The quantitative data was analyzed using descriptive statistics. In addition the study used multiple regression analysis to analyze the data. The study concluded that though the medical insurance companies have invested a lot of money in the fraud prevention tools, they have not directed that investment to adopt standard online identity. The study concluded that the aspects of security controls such as passwords, protection of customer privacy, risk management framework and restrictions &control over transactions influence the fraud in the medical insurance company. This study therefore recommended that the insurance companies should direct their funds toward adopting standard online identity as well as investing in latest technology that counter imaging technique and other sophisticated gadgets that are used to commit medical insurance fraud. From the study findings and conclusion, the study also recommended that the top management in the medical insurance companies should ensure that they fully support fraud detection policies by allocating enough resources to acquire latest technology that counter imaging techniques used to commit fraud.**

Keywords: **Risk, firm specific factors, medical insurance company.**

1. INTRODUCTION

Fraud has been the precipitating factor in the distress of insurance sector worldwide, and as much as various measures have been taken to minimize the incidence of fraud, it still rises by the day because fraudsters always device tactical ways of committing fraud (Rezaee,2004). This has become a point of great attention in the insurance sector in the international scene. Fraud is now the crime of choice of organized criminal gangs worldwide. Medical insurance fraud has become a major source of concern in Kenya. However, despite the ever increasing cases of medical insurance fraud cases that has claimed a number of insurance companies in the country; no local or international studies had ever focused on the effect of firm specific factors on medical insurance fraud in Kenya. Existing literature is concentrated in the West African region especially in Nigeria with sparse studies in other regions in Africa. This has created a shortage in empirical evidence and studies on the local scene.

Statement of the problem:

Medical insurance fraud is believed to be amongst the most serious corporate problems, and challenges in today's business environment, indeed Palshikar (2002) suggests that fraud or scam is a dominant white collar crime in insurance companies. In the insurance industry, many medical insurance frauds are perpetrated through overstating of claims, manipulation of the documents of non-existing hospitals and pharmacies as well as covering up non- disclosure of facts at the proposal stage. Medical insurance fraud is widespread and very costly to Kenya's health-care system. According to Association of Kenya insurers, (2015), the number of health insurance fraudulent claims increased from 22 in 2010 to 225 in 2014.The value and total amount paid for health insurance fraudulent claims increased by average Ksh 46,869,450 and Ksh 497,047,607 per year from 2011 to 2014. (Ernst & Young, 2015)

Medical insurance frauds in Kenyan insurance only prove that medical liberalization aggravates the inherent tendency of shallow markets to foster excessive speculation and worsens the systematic consequence of such speculative activity. Insurance companies are waking up to the fact that medical insurance fraud is driving up the overall costs of insurers and premiums for policyholders, which may threaten their viability and also have a bearing on their profitability. The sophistication of fraudsters in the area of commercial insurance claims and third-party claims makes it all the more difficult for organizations to detect and control fraud in time. Medical insurance fraud impacts organizations in several areas including financially, operationally and psychologically. While the monetary loss due to fraud is significant, its full impact of medical insurance fraud on the insurance company can be staggering. Its loss of reputation, goodwill and customer relations can be devastating. Apart from depleting the financial resources of insurance companies, fraudulent claims or surrender also affect policy holders adversely, since the latter have to pay higher premiums for insurance products. (Ernst & Young, 2015)

However, despite the ever increasing cases of medical insurance fraud risks that have claimed a number of insurance companies in the country, no local or international studies had ever focused on the effect of firm specific factors on medical insurance fraud in the insurance industry in Kenya. Existing literature is concentrated in the West African region (Abdul and Tinusa 2012; Adenji, 2004; Adewumi, 2011) especially in Nigeria with sparse studies in other regions in Africa. This has created a shortage in empirical evidence and studies on the local scene. This study will seek to fill this gap by investigating the factors that contribute to medical insurance fraud in the banking industry.

Objectives:

i. To determine the effect of ICT on medical insurance fraud in Kenya.

ii. To evaluate how internal control affect medical insurance fraud in Kenya.

iii. To determine the effect of professional experience on medical insurance fraud in Kenya.

iv. To evaluate how motivation of employees affect medical insurance fraud in Kenya.

2. THEORETICAL REVIEW

The Fraud Triangle Theory:

The most widely accepted fraud theory is that offered by Donald Cressey (1973), the criminologist who carried out a research on 200 trust violators who had been incarcerated and held in various prisons in the US. He said that, "Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-shareable, are aware that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalizations which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property" (Cressey, 1973). This hypothesis has popularly become known as the Fraud Triangle Theory as can be seen in figure 2.1

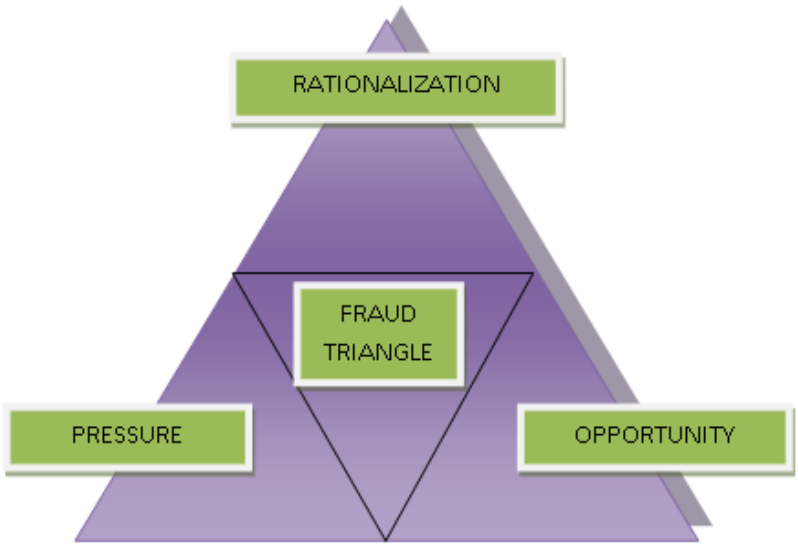

Figure 2.1 Fraud Triangle. (Source: Adapted from Akelola, 2012

Pressure on employees/ Motivation: This factor occurs due to financial problems. Cressey (1973) identified fraud as being the outcome of problems that the individual perceived as being in some way non-sharable. Cressey (1973) viewed the term "non-shareable" as being relative, varying from person to person. Thus, what is non-shareable to one person may not be non-shareable to another.

However, he concluded that non-shareable problems were concerned with status-seeking or status-maintaining activities. The six categories of non-shareable problems include violations of obligations, personal failures, business reversals, isolation from friends and associates, status gaining demands, and problems in the employer-employee relationship (Cressey, 1973). Most employees are motivated by either greed, or need.

Opportunity:

By itself the non-shareable problem will not lead an employee to commit fraud (Wells, 2005). The employee must also perceive that he/she has the opportunity to commit the crime without being detected.

While the position of trust may provide an opportunity for the solution of a non-shareable financial problem, Cressey (1973) found that many trusted people did not at first see in their positions of trust the opportunities which such positions offer, and thus did not engage in fraud by using entrusted funds to solve their non-shareable problems. The culture of fraud thrives where there are weak internal controls, and where there's no clear organizational policy on ethics and fraud.

Rationalization:

The act of rationalization is not an after-thought that justifies the fraud, but it is the real reason(s) which the person has for acting in a fraudulent manner. Rationalization is, therefore, part of the motivation to commit fraud and is often abandoned after the criminal act has taken place (Wells, 2005). Cressey (1973) observed that a trusted person does not invent a new rationalization for his violation of trust, but rather he applies to his own situation a verbalization which has been made available to him by virtue of his having come in contact with a culture in which such verbalizations are present.

The fraudulent individual acquires such verbalizations from other persons who have had prior experience with situations involving positions of trust and trust violation. Those engaging in fraud convince themselves that it's "harmless", and that the firm is large enough to absorb the loss; or that it's justified, the victim deserved it.

What this study seeks to find out is if at all the policy holders had the characteristics that the above theory explains, that is if the policy holders are usually under any form of pressure, have opportunities presented to that or if they seek to act and justify their actions later.

According to Albrecht et al., (2009) fraud is composed of three elements, namely a perceived pressure, a perceived opportunity and rationalization of the act of fraud. According to this theory fraud is composed of the three elements (Albrecht et al., 2009). The three elements in the fraud triangle are interactive, for instance the greater the perceived opportunity, the less rationalization it takes for someone to commit fraud (Albrecht et al., 2010). However, fraud is a complex matter and is a function of a combination of factors (Rae & Subramaniam, 2008). An understanding of

how opportunities, pressures and rationalizations contribute to fraud in organizations can assist management to easily recognize the areas of susceptibility to fraud and strengthen these areas (Albrecht et al., 2010). Fraud perpetrators must have some way to rationalize their actions as acceptable (Albrecht et al., 2009). Justification of fraudulent behavior is usually as a result of a fraudster's lack of personal integrity or other moral reasoning (Rae & Subramaniam, 2008).Individuals do not commit fraud unless they can justify it as being consistent with their own personal code of ethics (Hillison et al., 1999).Rationalization by fraudsters emanates from their feeling that the victims owe them and that they deserve more than they are getting (Mutua, 2011). Some individuals possess an attitude, character or set of ethical values that allow them to knowingly and intentionally commit a dishonest act (Cohen et al., 2011). Strong moral codes can prevent individuals from using rationalizations to justify illicit behavior. (Hillison et al., 1999).

White Collar Crime Theory of Fraud:

This theory was pioneered by Edwin Sutherland in 1939.White collar crime means; a crime committed by a person of respectability and high social status in the course of his/her occupation (Sutherland, 1949). Sutherland originally presented his theory in an address to the American Sociological Society in an attempt to study two fields, crime and high society which had no previous empirical correlation. White collar criminals exhibited different characteristics and motives

than typical street criminals. He used the concept to challenge conventional stereotypes and theories. The theory states that as fraudsters found themselves successful at this crime, they began to gain some secondary delight in the knowledge that they are fooling the world, that they are showing their superiority to others. The individuals committing fraud must have a strong ego and great confidence that they will not be detected. The common personality types include someone who is driven to succeed at all costs, self-absorbed, self-confident, and often-narcissistic (Rudewicz, 2011). According to the Diagnostic and Statistical Manual of Mental Disorders (DSMMD), as cited by Rudewicz (2011) narcissistic personality disorder is a pervasive pattern of grandiosity, a need for admiration and a lack of empathy for others. Individuals with this disorder believe they are superior or unique, and they are likely to have inflated views of their own accomplishments and abilities. An assumption of this theory is that prosecutors are more lenient on white-collar as opposed to street criminals. Fraud prevention may be able to lessen the impact of white collar crime thus influencing effective medical insurance control.

The Fraud Diamond Theory:

Wolfe and Hermanson (2004) argued that although perceived pressure might coexist with an opportunity and a rationalization, it is unlikely for fraud to take place unless the fourth element (i.e., capability) is also present. In other words, the potential perpetrator must have the skills and ability to commit fraud. Wolfe and Herman son (2004) maintained that opportunity opens the doorway to fraud, and incentive (i.e. pressure) and rationalization lead a person toward the door. However, capability enables the person to recognize the open doorway as an opportunity and to take advantage of it by walking through repeatedly. According to Wolfe and Hermanson (2004), capability is the situation of having the necessary traits or skills and abilities for the person to commit fraud. It is where the fraudster recognized the particular fraud opportunity and ability to turn it into reality. Position, intelligence, ego, coercion, deceit, and stress, are the supporting elements of capability (Wolfe and Hermanson 2004).According to Mackevicius and Giriunas (2013), not every person who possessed motivation, opportunities, and realization may commit fraud due to the lack of the capability to carry it out or to conceal it. Albrecht, Williams, and Wernz (1995) opine that this element is of particular importance when it concerns a large-scale or long-term fraud. Furthermore, Albrecht et al. (1995) believe that only the person who has an extremely high capacity will be able to understand the existing internal controls, to identify its weaknesses and to use them in planning the implementation of fraud. . Similarly, Wilson (2004) discloses that rationalization and capability are all inter-related, and the strength of each element influences the others.

Equity Theory:

According to equity theory, individuals make subjective assessments of the ratio of their inputs (effort) and outcomes (compensation) to those of their contemporaries (referent others). A perceived imbalance is said to create dissonance, and may lead the perceivers to take actions such as committing fraud, decreasing their inputs, trying to negotiate higher pay, or ultimately leaving the organization. On the other hand, if the difference in pay is seen as justified based on the other's greater inputs or outcomes, it is accepted as being fair which in turn motivate the employees to be committed and thus reducing incidences of fraud in the organization . Wallace and Fay (1983) argued that the critical theme that exists at the center of all compensation theory and practice is equity. Empirical evidence in social psychology indicates that individuals routinely overestimate their abilities and contributions relative to those of others (Moore and Small, 2007). Referred to as self-enhancement, this human tendency of fraud has been shown to be particularly strong when there is ambiguity regarding individuals' compensation (Fiske and Taylor, 2008), and is pronounced among employees (Chatterjee and Hambrick, 2007; Hayward and Hambrick, 1997).

Conceptual Framework:

A conceptual framework is a set of broad ideas and principles taken from relevant fields of inquiry and used to structure a subsequent presentation (Reichel and Ramey, 1987). It is a tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny. It helps the research to explain the relationship among interlinked concepts such as the dependent and independent variables (Kombo, 2006). In this study, the researcher will seek to establish factors influencing medical fraud in Kenya. It will be conceptualized within the dependent-independent variable components and their indicators. The figure below shows a diagrammatic representation of the relationship between the dependent and independent variables.

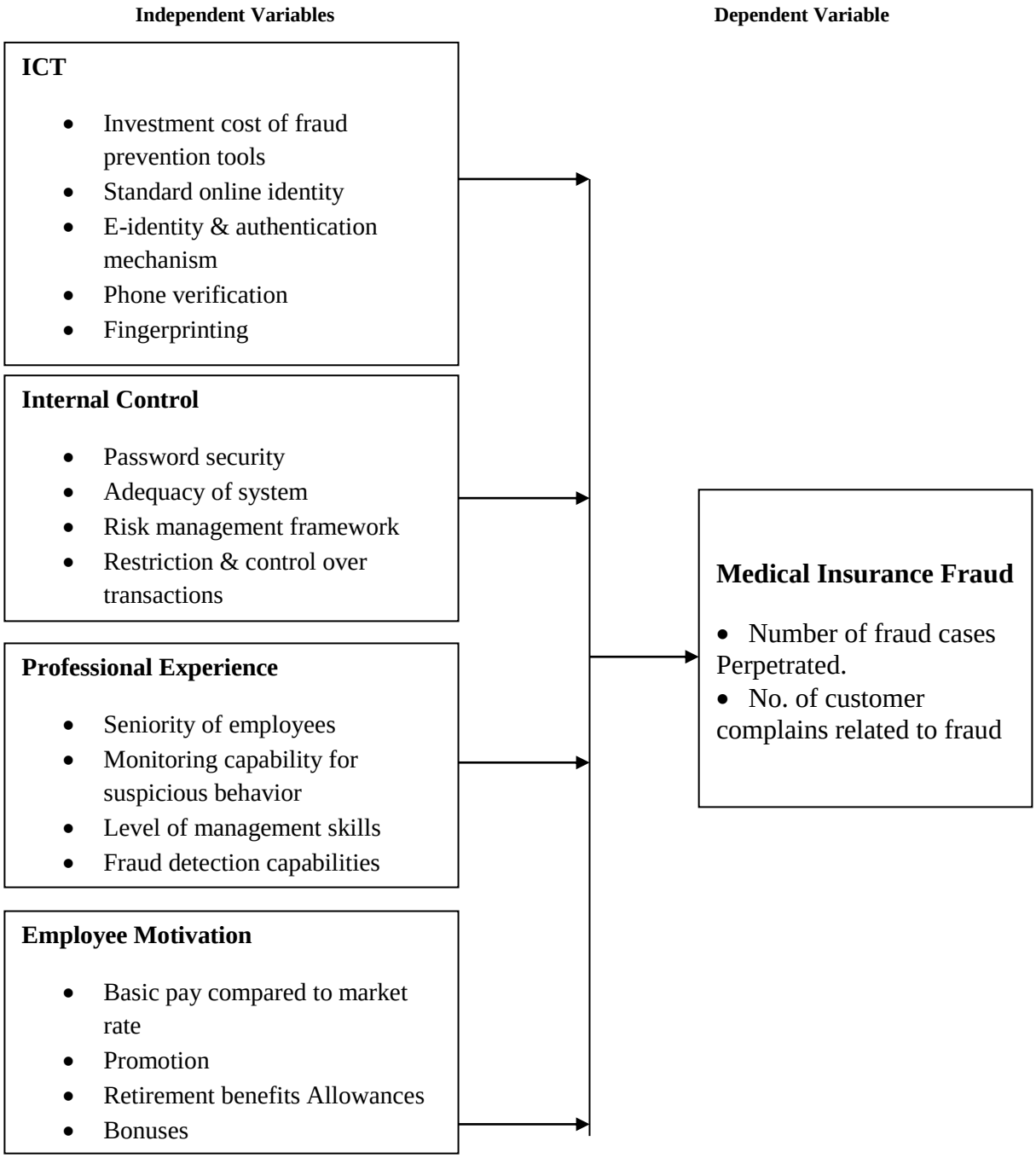

Figure 2.3 Conceptual Framework

Critique of Existing Literature:

Critics argued that the model related to medical fraud alone is an inadequate tool for deterring, preventing, and detecting fraud. This is because some variables of that model i.e. pressure and motive cannot be observed; and that some important factors, like fraudsters' capabilities are ignored. Thus, some researchers suggested the pressure side should be replaced by personal integrity because it can be more observable, others suggested the motive side needs to be expanded to include non-financial factors like ego and coercion. (Murdock, 2008).

Research gaps:

Medical insurance fraud is widespread and very costly to Kenya's health-care system. According to Association of Kenya insurers, (2015), the number of health insurance fraudulent claims increased from 22 in 2010 to 225 in 2014.However, despite the ever increasing cases of medical insurance fraud risks that has claimed a number of insurance companies in the country, no local or international studies had ever focused on the effect of firm specific factors on medical insurance fraud

in Kenya. Existing literature is concentrated in the West African region (Abdul and Tinusa 2012; Adenji, 2004; Adewumi, 2011) especially in Nigeria with sparse studies in other regions in Africa. This has created a shortage in empirical evidence and studies on the local scene. This study will seek to fill this research gap by investigating the effect of firm specific factors on medical insurance fraud in the insurance industry.

Research methodology:

The research design used in this study was descriptive research design. The target population of interest in this study comprised of all 170 unionisable staff members as well as the management staff of selected insurance companies. The study was undertaken at sample of selected medical insurance companies. The sampling frame was drawn from various employees in those companies. The researcher used questionnaires as the research instrument to gather the relevant information needed related to the study.

Model:

The researcher further employed multivariate regression model to study the causes of medical insurance fraud in Kenya. The research deemed regression method to be useful for its ability to test the nature of influence of independent variables on a dependent variable. Regression was able to estimate the coefficients of the linear equation, involving one or more independent variables, which best predicted the value of the dependent variable. Therefore, the researcher used linear regression analysis to analyze the data. In this study the following was the regression equations that were used to test the significance of the study hypotheses:

$$\mathbf{Y= \beta_0+\beta_1 X_1+\beta_2 X_2+ \beta_3 X_3+ \beta_4 X_4+\varepsilon}$$

Where Y is the dependent variable, Medical Insurance Fraud

X_1 - ICT

X_2 - Internal control

X_3 - Professional experience

X_4 - Employee motivation

ε - Error term

3. RESULTS AND DISCUSSION

Medical insurance fraud:

The respondents were asked to state the number of the fraud cases in the last five years in their companies in the relation to the number of fraud cases attempted, number of fraud cases intercepted and number of fraud cases executed. The results have been summarised in the table 1 below.

Table 1 Number of fraud cases in the last five years.

NO. OF FRAUD CASES/ YEAR	2011	2012	2013	2014	2015
No. Of Fraud Cases Attempted	1000	1500	1700	1900	2300
No. Of fraud cases Intercepted	700	900	1000	1200	1400
No. Of Fraud Cases Executed	100	300	500	700	900
TOTAL	1800	2400	3300	2800	4600

ICT:

The amount invested in fraud prevention tools for the last five years.

The study intended to find out the amount invested in fraud prevention tools for the last five years. The study revealed that the average amounts invested by the medical insurance companies were Ksh 20,000,000 for 2011, Ksh 25, 000,000 for 2012, Ksh 26,000,000 for 2013, Ksh 48,000,000 for 2014 and Ksh 100,000,000 for 2015.This implies that the average amounts invested by the medical insurance companies have been increasing with years since the latter year which is 2015 recorded the highest amount of invested in the fraud prevention tools. The results have been summarized in the table 2 below.

Table 2 Amount invested in fraud prevention tools

Years	2011	2012	2013	2014	2015
Amount Invested (Ksh '000)	20,000	25,000	26,000	48,000	100,000

Internal control:

The respondents were also asked to indicate their opinion on the statements regarding internal controls in their company on a likert scale of 1-5 (where **S.A**: Strongly Agree, **A:** Agree, **N:** Neutral, **D:** Disagree, **S.D**: Strongly Disagree). The study revealed that majority of the respondents (80%) was of the view that their companies have put in place the password for each of their customers to help protect them against medical Fraud. Furthermore the study established that customers of the insurance companies do not share their passwords with other users in accordance with 60% of the respondents. However the study revealed that majority of the medical insurance companies have not put in place a risk management framework to curb incidences of medical insurance fraud in accordance to 85% of the respondents. Furthermore, the majority of the respondents (60%) were of the view that their companies have not put in place restrictions and control over transactions to protect customers against medical insurance fraud. The results have been summarized in the table 3 below.

Table 3 Internal control

Statements	S.A	A	N	D	S.D
We have passwords for each of our customers to help protect them against medical Fraud	20%	60%	5%	10%	5%
Our customers share their passwords with other users	10%	30%	0%	50%	10%
The company has put in place a risk management framework to curb incidences of medical insurance fraud	5%	10%	0%	70%	15%
The company has put in place restrictions and control over transactions to protect customers against medical insurance fraud	10%	20%	10%	40%	20%

Professional experience:

The respondents were asked the extent to which they agree with the statement on how the working experience of employees affects number of fraud cases reported by their company. The study found out that majority of the respondents (80%) were of the view that working experience of employees affect number of fraud cases reported by their company. However minority of the respondents (20%) did not agree with the notion. The results have been summarized in the table 4

Table 4 Extent of agreeing with the statement on working experience

Category	Frequency	Percentage
Strongly Agree	4	8
Partially Agree	6	12
Agree	30	60
Disagree	5	10
Strongly Disagree	5	10
Total	**50**	100

Employee motivation:

4.8.1 The respondents were also asked to rate the effectiveness of the employee motivation measures in the medical insurance company on a likert scale of 1-5 (where M.E: Most Effective; P.E: Partially Effective; E: Effective; LE: Least Effective; N.E: Not Effective :) The results have been summarized in the table 5 below.

Table 5 Employee motivation

Statements	M.E	P.E	E	L.E	N.E
Encouragement of employees through communication, rewards and recognition	5%	15%	10%	50%	20%
Poor basic pay compared to market rate	20%	20%	0%	50%	10%
Use of performance management system and career development incentives.	10%	15%	5%	60%	10%
Provision of retirement benefits	50%	20%	20%	5%	5%
Rapid promotion for deserving employee	65%	15%	10%	0%	10%
Provision of bonuses to hardworking employees	10%	20%	0%	70%	20%

Regression Analysis:

In this study, a multiple regression analysis was conducted to test the influence among predictor

Variables and medical insurance fraud in the insurance industry. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions.

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	STD error of the Estimate
1	0.87	0.75	0.69	0.73

R-Squared is a commonly used statistic to evaluate model fit. R-square is 1 minus the ratio of residual variability. The adjusted R2, also called the coefficient of multiple determinations, is the

Percent of the variance in the dependent explained uniquely or jointly by the independent variables. 69.02% of the changes in the fraud in the medical insurance company could be attributed to the combined effect of the predictor variables

Table7: Summary of One-Way ANOVA results

Model		Sum of Square	Df	Mean Square	F	Sig
1	Regression	9.22	4	2.31	9.20	0.0001
	Residual	42.88	171	0.25		
	Total	52.10	175			

The probability value of 0.0001 indicates that the regression relationship was highly significant in predicting how ICT, Internal control, Professional experience and Motivation of employees Influenced fraud in the medical insurance industry. The F calculated at 5% level of significance was 9.20 since F calculated is greater than the F critical (value =2.5252), this shows that the overall model was significant.

Table 8: Regression coefficients of the relationship between fraud in the medical insurance industry and the four predictive variables

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig
1	(Constant)	1.053	0.217		4.85	0.000273
	ICT	0.682	0.149	0.613	4.58	0.000903
	Internal control	0.701	0.181	0.149	3.87	0.000153
	Professional experience	0.599	0.196	0.234	3.06	0.00026
	Motivation of employees	0.763	0.091	0.138	8.39	0.000182

As per Table 4.16, the equation $\mathbf{(Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4)}$ becomes:

$Y= 1.053 + 0.682X_1+ 0.701X_2+ 0.599X_3+ 0.763X_4$

Where Y is the dependent variable Fraud in the Medical insurance companies

X1 - ICT

X2 - Internal control

X3 - Professional experience

X4 - Motivation of employees

The regression equation above has established that taking all factors into account (ICT, Internal control, Professional experience and Motivation of employees) constant at zero fraud in the medical insurance industry will be 1.053. The findings presented also show that taking all other independent variables at zero, a unit increase in the ICT would lead to a 0.682 increase in the scores of fraud in the medical insurance industry and a unit increase in the scores of Internal control would lead to a 0.701 increase in the scores of fraud in the medical insurance industry. Further, the findings shows that a

unit increases in the scores of professional experience would lead to a 0.599 increase in the scores of fraud in the medical insurance industry. The study also found that a unit increase in the scores of Motivation of employees would lead to a 0.763 increase in the scores of fraud in the medical insurance industry. Overall, level of Motivation of employees had the greatest effect on the fraud in the medical insurance industry, followed by internal controls, then ICT while level of Professional experience had the least effect to the fraud in the medical insurance industry in Kenya. All the variables were significant ($p<0.05$).

4. RECOMMENDATION

The study found out that the medical insurance companies have channeled their investment to the wrong projects of ICT which are not adding value to them. This study therefore recommended that the insurance companies should direct their funds toward adopting standard online identity as well as investing in latest technology that counter imaging technique and other sophisticated gadgets that are used to commit medical insurance fraud. This could inform the rush by most medical insurance companies to upgrade their core systems and management systems.

From the study findings and conclusions, the study recommends that the top management in the medical insurance companies should ensure that they fully support fraud detection policies by allocating enough resources to acquire latest technology that counter imaging technique and other sophisticated gadgets in order to gain a competitive edge. In addition, this study recommends the strengthening of internal controls, the use of analytical tools to analyze and present statistics on fraud, use of audits and employee fraud schemes to combat fraud. Specifically, every medical insurance company must have fraud management units where all fraud related incidences are investigated and reported.

The study finally recommends that the management at the medical insurance companies should enhance the training among its employees on the possible loopholes which the fraudsters use to defraud those creating distinctive capabilities among them. The study recommends that the employees should be trained on the importance of fraud prevention through seminars and workshops. The study also recommends that the administration at the medical insurance companies should enhance the employee morale and satisfaction through bonuses and allowances. The insurance companies should also put a check on the high turnover rate experienced at the medical insurance companies by having a rapid promotion scheme for the experienced hands. Finally, the study recommends that management puts in place fraud management units, where all fraud related incidences in the organization are reported and investigated.

Areas for Further Research:

To validate the findings of this study, this study recommends that future studies be replicated in different medical insurance companies. This could be undertaken in large medical insurance companies especially the top 5 insurers in the East African region. Furthermore, a similar study using multiple medical insurance companies could also provide substantive literature for comparison. This could provide literature for comparison to the findings of this study. Secondly, this study recommends research on the impact of fraud on medical insurance performance. Though it is generally perceived to be negative, the magnitude or extent of the impact has not been examined and this could provide literature on how fraud affects various performance indicators of the medical insurance companies. Finally, this study recommends a research on the impact of fraud management policies on the performance of the medical insurance companies.

REFERENCES

[1] Adsit, D. (2011). Small Daily Security Breaches Worse than Large High-Profile Ones. *Card not present.com*. Archived from the original on 2012-07-09.

[2] Akindele R.I, Nassar M.L and Owolabi A.A. (2008).Essentials of Research methodology. Obafemi Awolowo University Publisher, Ile- Ife.

[3] Alashi, S.O (1994). *Insurance Failure Resolution: The Main Option.* NDIC Quarterly Vol. 3

[4] Apostolou, B., Hassell, J., Webber, S. (2001a). Management fraud risk factors: ratings by forensic experts, *The CPA Journal*, October,:48-52.

[5] Cain, S. (1999), Fraud in the workplace, *Orange County Business Journal*, Vol. 22 No.16, pp.78.

[6] Carcello, D. and Palmrose, S. (1994). The transactions demand for cash: An inventory theoretic approach. *The Quarterly Journal of Economics*, Vol. 66 No. 4, :545-556.CBK (2012), banking survey report

[7] Chalmers, M. (2002).*Fundamental of Social Research Methods*.2nd edition. Cape Town: Juta.

[8] Coffin, B. (2009). Trends in corporate fraud, *Risk Management*, Vol. 50 No.5:9.

[9] Cohen, R.J. and M. Swerdlik, (2001). Psychological Testing and Assessment: An Introduction toTests and Measurement. 5th Edn., McGraw-Hill, Boston, ISBN: 10: 0767421574, pp:800.64

[10] Cooper, D.R and Schindler, P.S. (2007).*Business Research Methods* (8th edn) McGraw-Hill: New York.

[11] Deming, W. E. (1986). Out of the Crisis. MIT Center for Advanced Engineering Study, Cambridge, MA.

[12] Ellen, M. (2009).Mass network compromise cause of most online fraud. [Online] Available: http://pcworld.about. com/ od/security2/Mass-Network-Compromise-Cause.htm (June 30, 2010)

[13] Ernst and Young. (2000). Fraud, The Unmanaged Risk an International survey of the effect of fraud on businesses. 2000 International Survey Ernst and Young. www.E&Y.com.

[14] Katz, D. (2000). Elements of a comprehensive security solution, *Health Management Technology*, Vol. 21 No.6:12-16

[15] Kathuri, J.N., and Pals, D.A. (1993).*Introduction to Educational Research*.Njoro: Egerton University Press.

[16] KPMG (2001). 2001 global e.fraud survey, available at: www.kpmg.ie/irm/efraud.pdf,

[17] Krejcie, R.V. &Morgan, D.W. *1970*.Determining sample size for research activities. Educational and psychological measurement. 30: 607-610.

[18] MacRae, J. (2001). The Evolution of Insurance Fraud Detection: Claims, Sept 2001 v49 i9 p 51. Insurance Week, Inc. Article #A78542863.

[19] Mativat, N. and Tremblay, U. (1997). Counterfeiting credit cards: displacement effects, suitable Offenders and crime wave patterns: British Journal of Criminology, spring 1997 v 37 n2 p 165(19).

[20] McFadden, L. (2007). Detecting synthetic identity fraud.*Bankrate.com*. pp. 1–2.Archived Mena, J. (2002). Investigative Data Mining for Security and Criminal Detection, Butterworth-Heinemann.

[21] Montgomery, D.D., Beasley, M.S., Menelaides, S.L., Palmrose, Z. (2012), Auditors' new procedures for detecting fraud, *Journal of Accountancy*, No.May, pp.63-6.

[22] Mugenda, O.M and Mugenda, A.G (2003) *Research Methods, Quantitative and Qualitative Approaches*, Acts Press, Nairobi

[23] Olmos, D. (2009). Social Security Numbers Can Be Guessed From Data, Study Finds. Bloomberg.Archived from the original on 2012-07-19.Retrieved 2011-01-04.66

[24] Orodho J.A. (2003), Financing Education in Kenya: Secondary School Bursary School Implementation and Challenges, Discussion Paper 035/2003, Institute of Policy Analysis and Research

[25] Palshikar, G.K. (2002), The hidden truth, Intelligent Enterprise.com, 28 May, :46-51.

[26] Prieston, A. J. and Dreyer, J. A., (2001) Mortgage Fraud, The Impact of Mortgage Fraud on Your Company's Bottom Line, Mortgage Bankers Association of America.

[27] Rezaee, Z. (2004), Causes, consequences and deterrence of financial statement fraud, Critical Perspective on Accounting, in press.

[28] Samociuk, Martin and Iyer, Nigel (2003) Fraud Resistance, A Practical Guide, SIRCA 01-2003, Standards Australia International Limited ISBN 073375028 1. Journal of Economic Crime Management. Volume 2, Issue 2

[29] The Nilson Report, (December, 2000) Credit Card Fraud Losses 1980 through 2000, Issue 730

[30] Oxnard, Cfrom the original on 2012-07-18.Retrieved 2008-09-21.