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# INFLUENCE OF RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF LIFE ASSURANCE FIRMS IN KENYA: A SURVEY STUDY OF KISII COUNTY

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# Abstract

Insurance industry is becoming stronger as their capital base; new satellite offices and annualized premium income keep on increasing. It is not clear of the clear cause of the collapse of the insurance firms. The purpose of this study was to assess the influence of risk management practices on financial performance of life assurance firms in Kenya. The study's specific objectives were: To find out the extent to which underwriting practices influence financial performance of life assurance firms in Kenya, to find out the extent to which claims adjustment provisions influence financial performance of life assurance firms in Kenya and to establish the extent to which premium valuation methods influence the financial performance of life assurance firms in Kenya. The target population was one hundred and eighteen respondents. Census sampling method was used. Questionnaires were used for data collection. The data was analyzed using descriptive statistics which involved the use of percentages, frequency tables and regression equations. The findings of this study were beneficial to both the life assurance prospects and management as they helped interpret performance of. The study recommended that the management on insurance firms should consider adopting premium valuation methods to ensure financial performance of life assurance firms in Kenya.

Keywords: Underwriting practices, Premium valuation methods, Claims' liabilities, Financial performance



# INTRODUCTION

Insurance industry offer solutions to risks faced by players in other industries. Soekarno and Azhari (2009), assert that individuals and even business firms transfer their uncertainties to insurance firms upon payment of small amounts of money, the premiums which are relatively small compared to the possible losses faced by the firms. Insurance firms and their services started many days ago with the Romans, but formalized in the eighteenth century. It has helped in spreading financial risk amongst many persons who pay the premiums to make a pool, from which those who suffer losses are paid. This reduces the cost for those who end up suffering unexpected misfortunes. Financially disadvantaged persons spend about 9.2 percent of their income trying to reduce risks to help them deal with unexpected shocks and protect their assets (Njuguna and Arunga, 2012). One of the solutions provided by insurance companies is that of paying hospital bills for the sick. Wilper, et al. (2009), expressed that health insurance help individuals to get access to health care services and reduce a person's cost on chronic illnesses which is usually expensive. Wilper, et al. (2009) asserts that an insured is more likely to receive recommended screening and good health care for critical diseases.

Life assurance companies provide a good medium of mobilizing money required for national development and provision of job opportunities. According to Shahroudi, et al. (2012), insurers engage in social programs of government and also have positive effects on a country's economic growth. Life assurance provides cover against old age, premature death and disability where persons pay premiums which represent savings for them and their families. Insurers use the premiums collected to do their investments and hence bring about economic development (Saeidy and Kazemipour, 2011). Life insurance protects one's survivors and dependants against financial challenges. The policy pays the sum assured upon the death of an assured. In most cases, life insurance is combined with a savings component in it. Probably the rationale for combining savings and life insurance is that life insurance savings are taxed cheaply than most of other types of savings (Doherty and Singer, 2002). In the late nineteen eighties, life assurance secondary market came into being in response to the HIV-AIDS scourge, as people experienced sudden need for money to pay for medical treatment and maintain their life styles. People wanted money from their assets which included life assurance policies (Doherty and Singer, 2002).

The clients' insurance policies do affect the financial performance of an insurance company as they comprise both an income and cost components to the organization. There is scanty scholarly information relating to financial performance of insurance companies, measured in terms of profits and investments using annual turnover, underwriting profitability, return on assets, net premium earned and return on equity. The performance is in most cases



influenced by decisions made by management and the size of organization. Ongore and Kusa (2013), conclude in their study about determinants of financial performance of commercial banks in Kenya that the banks' financial performance is influenced by decisions made by the management and the board of directors. Ongore and Kusa (2013), indicate that macroeconomic factors like inflation and gross domestic product have influence on performance though minimal. That when the economy is doing well and gross domestic product is growing, people go in for loans and when the economy and gross domestic product go down, people shy away from loan facilities which reduce financial institutions' profitability.

Lundholm, et al. (2012) in their study using a sample of 51,866 firms from 69 countries, found out that financial leverage and spread between return on assets and net borrowing cost when multiplied result to return on equity which is a measure of profitability. Thus credit facilities also influence a firm's profitability. Lundholm, et al. (2012), study indicates that leverage negatively influences profitability and this makes the highly profitable organizations to raise their capital through internal financing. According to Almajali, et al. (2012), in their examination on factors affecting financial performance of Jordanian insurance companies listed at Amman stock market in Jordan, size of the organization, management competence, liquidity and changes in leverage led to changes on the profits of insurance companies.

Financial performance is measured using financial ratios which make a comparison between current and past performance; firm's financial standard with that of the industry. According to Angell and Brewer (2003), financial performance is determined by asset utilization, relative profitability and company's financial leverage. Angell and Brewer (2003) warn that the major problem with these three determinants is that they depend on each other and no one of them can work independently to influence financial performance. Rakshit (2006) on exploration of Economic Value Added based performance measurement in Dabur India limited, indicates that performance of organizations is measured using Net Profit Margin, Earning per Share, Return on Equity, Return on Asset and Operating Profit Margin. Rakshit (2006) further argues that Return on Assets is the most popular profit indicator though it does not tell true profits and does not show if it covers the cost of capital or not.

The capital base of the insurance industry is continuously growing showing that the industry is becoming stronger. Hamadu, et al. (2011), in their study about intelligence information generation, dissemination, and responsiveness in the performance of insurance business in Nigeria, assert that due to consolidation plan which strengthened the financial capacity of the country's insurance industry, capital has grown from 243 million dollars to 1.62 billion dollars.



Chaudhary and Kiran (2011) assert that there has been a tremendous growth in life assurance industry in India: The total number of offices of life insurers operating in India increased from 2199 in 2000-01 to 5373 in 2006-07, registering a growth rate of 11.9 per cent during the period of study while the number of offices of Life Insurance Corporation of India (LIC) increased from 2186 in 2000-01 to 2301 in 2006-07, registering a growth rate of 0.6 per cent, the number of offices of private life insurers increased from 13 in 2000-01 to 3072 in 2006-07, registering a very high growth rate of 92.4 per cent. Chaudhary and Kiran (2011), further indicate that the life assurance financial advisors grew by 39.99 per cent in the year 2006-07 while those from Life Insurance Corporation of India (LIC) grew by 4.75 per cent in the same year. Those from private life assurers grew by 140.3 per cent. Chaudhary and Kiran (2011) also explain that new businesses in life assurance industry grew by 16.1 per cent while the premiums went up by 35.1 per cent. New businesses for Life Insurance Corporation of India (LIC) grew by 10.4 per cent while the premiums had gone up by 26.7 per cent and new businesses from private life

assurers grew by 72.7 per cent and their premiums by 189.6 per cent. All this growth is attributed to the wide range of insurance products, brand promotion and some additional benefits like riders meant to suit the clients' changing needs. Growth of insurance industry is also brought about by mergers where the acquirer and the target companies are revalued upwards. According to Akhigbe and Madura (2001), the acquirer and the target companies receive favorable valuations after the consolidation. This is due to economies of scale brought about by provision of services at relatively lower costs. The other reasons are: reduction of redundant branches and companies benefitting from the expertise of each other (Akhigbe and Madura, 2001).

Despite the impressive growth, some companies have performed poorly and even ended up going under. According to Soverall (2012), the collapse of Colonial Life Insurance Company of Trinidad was the worst monetary distress ever experienced in the wider Caribbean region since it resulted to a financial loss of 17 percent of the region's Gross Domestic Product and even Trinidad's government is still struggling to bring its financial system back to normal by resolving the crisis that was caused by the collapse and reduce the resulting contagion risk. The collapse affected the economy of both Trinidad and Tobago by 3.5 percent in year 2009. Soverall (2012) further explains that the causes of this collapse were: Colonial Life Insurance Company's Investment Bank liquidity problems brought about by high cash withdrawals which increase liabilities over assets, insurance legislation remaining the same for a long time, the result of the reduction in prices of methanol and real estate on their agent's overall financial condition and a high rate of interest to finance their equally, highly risky investments. Soverall (2012) concluded by asserting that public officers should be trained to handle financial



innovations and the affiliated risk management practices, financial organizations be regulated to act in the public interest and availability of a political system which supports financial regulatory reforms.

According to Momo and Ukpong (2013), Equitable Life Assurance Society of United Kingdom went under in the year 2000 as its directors used money to unlawfully subsidize current annuity rate policies instead of the guaranteed annuity rate policies. The Enron energy company of Argentina, United States of America collapsed in 2001 because of the government's laxity on their laws which gave enough economic activity freedom. Momo and Ukpong (2013) further assert that firms' management weaknesses increased this distress: Skandia, Sweden's largest insurance company and a world leader in providing variable annuities and other savings products shook this reputation in 2003 when three of its top executives came under investigation for misusing corporate assets. Lion of Africa Insurance, Nigeria also liquidated because of board crisis, its liabilities outweighed the assets and could not recapitalize in 2007.

Mudaki et al. (2012) assert that the profitability of insurance business in Kenya is low due to the increasing mortality rates caused by ailments, poverty, lack of food and low living standards which result to inability to raise premium for buying insurance. The performance of insurance industry in Kenya may have been poor about three decades ago due to lack of a regulatory body which made several firms to operate without enough capital and hence leading to their statutory management or collapse (Mudaki et al., 2012). According to Gitau (2013), penetration of insurance industry in Kenya has been very low which has been caused by collapsing of the firms like Lake Star and Stallion insurance companies in year 2002.

Kiragu (2014) indicates that in the recent years, Kenya's insurance firms have received major positive changes leading to their growth in size and profits brought by their embracing of technology and reducing the cost of products for affordability by customers. Kiragu (2014) recommends that to ensure insurers' penetration, insurance regulators should not be so strict but rather assess them based on their risks and offer protection to their consumers. Ndungu and Gekara (2014) assert that to increase profitability, Kenyan insurance companies should embrace risk management practices like risk avoidance, transfer, control and most importantly accepting them.

## Statement of the problem

Insurance firms over time have shown an irregular trend in performance, some collapsing like United insurance and Blue shield among others. Fake insurance claims constitute of 10 percent of total claims (Fisk et al., 2010). Further studies indicate that 10 percent of the amount spent on health care claims are fraudulent (Lesch and Brinkmann, 2011). Insurance financial loss may



be due to inadequate liquidity management, underpricing, management issues and high tolerance to investment risks. Despite the fact that life insurance companies engage in long term investments which result to their ability to hold most of their clients' investments to maturity and resistance to short-term financial shocks, some participants in the market have dismally performed resulting to their dissolution. It is not clear the extent to which insurance firms embrace risk management practices in carrying out their operations. The collapse of Kenya National assurance in 1996, United insurance company in 2005 and the statutory management of Blue Shield which started in 2011 are attributed to fraud from unethical practices of insurance players. The purpose of this study was to assess the influence of risk management practices on financial performance of insurance firms in Kisii County, Kenya.

The specific objectives of the study were:

- i. To find out the extent to which underwriting practices influence financial performance of life assurance firms in Kenya.
- ii. To find out the extent to which claims adjustment provisions influence financial performance of life assurance firms in Kenya.
- iii. To establish the extent to which premium valuation methods influence the financial performance of life assurance firms in Kenya.

## THEORETICAL FRAMEWORK

## Multivariate Theory

Powell (2008) asserts that multivariate analysis involves the examination of two or more variables at the same time and then consider their interactions as predictors of losses in insurance industry. According to Nyce (2007), multivariate analysis includes advanced regression and time series models which are used by business firms to predict the trends or relationships of balance sheet and profit and loss account items which enable them to know likely situations in the future. Nyce (2007) confirmed that insurers heavily depend on estimating the activities in future. This estimation helps them to avoid adverse selection which is a situation where those who buy insurance are individuals with high chances of encountering big perils with higher claims than premiums paid. According to Nyce (2007), traditionally, insurers calculated premiums using univariate analysis which involves one factor analysis like use of only the age of an insured. But because of technology, multivariate analysis which involves many factors is nowadays used to get the premiums. This has led to predictive analytics used to determine the additional information required to get the premium, (Nyce, 2007). The results produced by predictive analytics show the likely occurrences with most results showing higher probability of the event occurring.



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# Arrow- Debreu Theory of General equilibrium

This theory is about how optimally or efficiently, preferred resources are allocated by organizations; it is about general equilibrium and according to classical economists, it is a theory of value, driven by the cost of production and no profit condition hence ignores the influence of demand on value (Duffie and Sonnenschein, 1989). The theory is about cost-benefit analysis and is concerned with the allocation of commodities between individuals or nations under environment of uncertainty. Where there is enough information about the preferences of clients, resource allocation can be decentralized as a competitive equilibrium after a redistribution of initial resources through lump sum taxes. But financing of goods with lump sum taxes does not change the efficiency of a competitive resource allocation (Laffont, 2002). Prices are set higher by organizations during peak hours to shift demand to off peak hours and reduce capacity costs in an efficient manner (Dana, 1999). In many situations, individuals are allocated to positions with limited capacities for example family members must be given household chores or college students must be assigned to popular courses with limited enrollments (Hylland and Zeckhauser, 1979). In insurance industry, the theory teaches that under given situations, where contingent- claims markets are complete, risks will be allocated in an optimal manner (Ball and Mankiw, 2007). This involves a time series uncertainty of whether the situation facing a person in future will be a lucky one or not and hence calls for allocation of risks in an efficient manner in that the insurance companies tend to implement results that they think the insured persons would achieve on their own if they were left to trade the risks on their own. Foss et al. (1999) asserts that the Arrow- Debreu theory assumes that insurance agents should be able to have enough information about the future states of nature of contracts to enable them predict all the future contingent events in a prudent manner and write policies which will take care of those contingent occurrences at the lowest cost.

# Data Envelopment Analysis (DEA) Theory

Data envelopment analysis involves application of benchmarking analysis which drives insurance firms towards the best practices in the market (Barros and Obijiaku, 2007). The analysis calculates efficiency of resources without using a production formula since the theory assumes that the production formula of the fully efficient decision making unit is known in advance; the theory uses multiple outputs to evaluate the efficiency (Huang, et al., 2012). According to Wu et al. (2007), data envelopment analysis is used to get the most successful unit amongst a set of observed ones and isolate those not efficient when compared to the most successful unit. It also shows the amount of the inefficiencies and improvements that can be put on the units which are not efficient. DEA determines which decision making unit (DMU)



represents the best practice. Wu et al. (2007), explains that DEA uses linear programming to analyze each decision making unit comprehensively in case of many input-output situations and measures each DMU's performance relative to an envelopment surface composed of other decision making units and finally shows how the analyzed decision making unit can improve to be efficient. In the insurance industry, data envelopment analysis is used to measure efficiency in productivity where factors like cost of equity capital and labor are considered to be inputs while premium income and new businesses written are the outputs; efficiency of the inputs used is measured compared to output produced (Bawa and Ruchita, 2011). Data envelopment analysis is of great importance in insurance industry since it helps in finding out efficiency required by insurance from the increasing risks that continue to be experienced (Bawa and Ruchita, 2011).

# **DuPont Theory of ratio analysis**

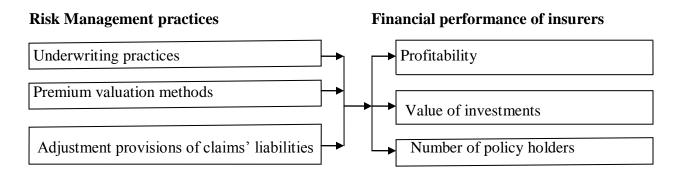
DuPont model is a technique used to determine how profitable a business firm is by use of traditional performance management tools through the integration of items from balance sheet and profit and loss account. According to Mitchell, et al. (2013), the traditional role of DuPont formula is to help rational investors decide on the optimal investments to undertake but has since evolved into a modern tool used to find out the strength, weakness and likely improvement on the capital structure of an organization that will help maximize stock holders' wealth. The first Du Pont model was developed before nineteen seventies when firms' main goal was that of maximizing return on assets (ROA), (Liesz and Maranville, 2008). According to (Liesz and Maranville, 2008), Brown F. D. who was an electrical engineer had been contracted by General Motors company to analyze their finances after which he discovered a relationship that existed between total asset turnover, net profit margin and return on assets. He found out that return on assets is equals to net profit margin multiplied by total asset turnover, which is actually profitability multiplied by efficiency.

Gitman (1998) as cited in Liesz and Maranville (2008) contend that, "in the 1970s the generally accepted goal of financial management became "maximizing the wealth of the firm's owners", "and focus shifted from return on assets to return on equity" (Liesz and Maranville, 2008) which then led to the modified DuPont model now commonly known as, DuPont identity, where return on equity is equals to return on assets multiplied by total assets and divided by equity. This was to cater for the ways institutions leverage their operations and the modern goal of organizations which is maximization of owners' equity. Raza, et al. (2013), contend that insurance firms when measured according to their net income levels do not rank the same as when measured using return on equity and usually the best performers in terms of net income



do not manage to perform in terms of return on owners' equity. Policy holders therefore do not like the highly performing insurance firms but the insurers which give them high returns on their investments and hence support DuPont method of measuring an insurance firm's performance (Raza, et al., 2013).





## **Research Gap**

A number of findings in the literature reviewed show that Total assets turnover, Net profit margin, Owners' leverage, Return on assets and Return on equity are positively related. Much has not been done on the financial performance of insurance firms in Kenya. According to Boadi, et al. (2013), studies on profitability of Insurance industry have not been widely conducted especially in emerging and developing markets. Cagil and Karabay (2010) assert that most of the studies on insurance industry have used Data Envelopment Analysis to assess their financial performance with a few studies using multivariate analysis. It is because of this reason that the present research used multivariate analysis to study the influence of risk management practices on financial performance of life assurance firms in Kenya with a concentration on adverse selection problem.

## **RESEARCH METHODOLOGY**

This study, adopted a survey research design of life assurance firms in Kenya. Survey research is appropriate because it improves the understanding of how risk management practices influence the financial performance of life assurance firms in Kenya as it involved all the selected respondents at relatively low cost, less time and minimal errors.

The study's target population was 118 respondents from the five major insurance firms in Kenya listed in the Nairobi stock market. The researcher did a census study due to the small number of respondents in the target population whose responses are important in this study.



The study used a structured questionnaire to collect primary data. Secondary data was obtained from audited financial statements of life assurance companies in Kenya.

A pilot test is a small scale imitation of a research project that by itself produces meaningful findings by confirming the design and operational processes of a research work (Gardner et al., 2003). Pilot test was used to assess reliability of the questionnaire of the current study. The validity of the questionnaire had adequate coverage of the variables under investigation and through expert advice

To assess reliability of the questionnaire, pilot test was done on 10 respondents who are not part of the sample study.

Questionnaires were E-mailed to the board members and senior managers of the selected companies forming the sample and for control purposes a register of sent and received questionnaires was kept. The data collected from the field was analyzed using descriptive statistics and inferential statistics which involve the use of percentages, frequency tables and regression analysis. This enabled the researcher to assess the influence of risk management practices on financial performance of life assurance firms in Kenya.

# EMPIRICAL RESULTS AND DISCUSSION

Descriptive statistics and inferential statistics were used to discuss the findings of the study. The study targeted a sample size of 118 respondents from which 116 filled in and returned the questionnaires making a response rate of 98.3%, this response rate was satisfactory to make conclusions for the study as Cooper and Schindler (2003), states that a response rate of between 30 to 80% of the total sample size can be used to represent the opinion of the entire population.

# **Underwriting Practices**

Amount	2009	2010	2011	2012	2013	Mean	standard deviation
Below one billion	85	20	8	3	0	1.91	0.25
One to three billion	30	64	24	0	0	1.71	0.28
Three to five billion	28	70	12	6	0	1.86	0.32

Table 1: Company's total financial asset invested in debt securities



The study sought to determine the respondents' agreement with company's total financial asset invested in debt securities on financial performance of life assurance firms in Kenya. From the findings, majority of the respondents indicated that the company's total financial assets invested in debt securities were between one to three billion as shown by a mean of 1.71 and a standard deviation of 0.28, between three and five billion as shown by mean of 1.86 and a standard deviation of 0.32 and finally below one billion as shown by mean of 1.91 and a standard deviation of 0.25. The above findings concur with study findings by Perumpral (1996) who asserts that medical doctors are required where the life insurance proposer is at an advanced age or the sum assured is very high which would translate into a high amount of payment if a claim is launched

## **Premium valuation methods**

Table 2.	rable 2. Company's annualized premium income							
Amount	2009	2010	2011	2012	2013	Mean	Standard deviation	
Below one billion	18	86	10	1	1	1.86	0.29	
One to three billion	22	80	14	0	0	1.73	0.27	
Three to five billion	28	72	10	4	2	1.85	0.28	
Over five billion	30	68	12	5	1	1.85	0.30	

# Table 2: Company's annualized premium income

The study sought to determine Company's annualized premium income in regard to the given years relating to financial performance of life assurance firms in Kenya. From the findings, majority of the respondents strongly agreed that; annualized premium income were between one to three billion as shown by mean of 1.73 and a standard deviation of 0.27, a range between three to five billion and over five billion also affected premium incomes as shown by mean of 1.85 and a standard deviation of 0.28 and 0.30 in each case , lastly premium incomes annually were affected by a range of below one billion as show by mean of 1.86 and a standard deviation of 0.29, the above findings concurs with the study finding by Kahane (2003). Kahane (2003) asserts that premiums to insurance companies ought to comprise of the expected claims and some loadings which include management costs, agents' commissions, some insurance profits, claim settlement costs and a cost for the risk taken by the insurer for accepting the uncertainties of the insured.



# Adjustment provisions of claims' liabilities

Amount	2009	2010	2011	2012	2013	Mean	Standard deviation
Below one billion	28	10	2	76	1	1.90	0.22
One to three billion	20	70	10	2	14	1.74	0.25
Three to five billion	28	11	61	4	12	1.85	0.26
Over five billion	50	9	12	5	40	1.86	0.31

Table 3: Company's claims and policy holder benefits paid

The study sought to determine the respondents' agreement with company's claims and policy holder benefits paid on financial performance of life assurance firms in Kenya from the finding majority of the respondents indicated that the company's claims and policy holder benefits paid was between one to three billion as shown by a mean of 1.74 and a standard deviation of 0.25 in the given years, then between three and five billion as shown by mean of 1.85 and a standard deviation of 0.26, followed by over five billion as shown by mean of 1.86 and a standard deviation of 0.31 and finally below one billion as shown by mean of 1.90 and a standard deviation of 0.22. the above findings concurs with study findings by McGuire, (2000) he asserts that risk management practices should be promoted to decrease claim severity and frequency, one practice being that of reducing fraud after a claim has been paid by simply adjusting the claims to reflect that change and once policy holders realize that claims are adjusted, they will never engage in fraudulent actions.

# **Financial performance**

Table 4: Com	Table 4: Company's position in terms of estimating inflation								
Inflation	5009	2010	2011	2012	2013	Mean	Standard deviation		
Over estimated	19	89	5	2	1	1.75	0.23		
Well estimated	27	83	4	1	1	1.72	0.25		
Under estimated	32	75	7	1	1	1.78	0.27		



The study sought to determine the respondent's level of agreement with the above statements relating to the Company's position in terms of estimating inflation and their effect on financial performance of life assurance firms in Kenya from the finding majority of the respondents indicated that the Company's position in terms of estimating inflation was well estimated as shown by 1.72 and a standard deviation of 0.25. Company's position in terms of estimating inflation and their effect on financial performance of life assurance firms in Kenya were over estimated as shown by a mean of 1.75 and a standard deviation of 0.23 and finally the inflation estimation was under estimated as shown by a mean of 1.78 and a standard deviation of 0.27, this was due that they affected performance of the organization in all years positively. The insurance firms had to employ an increased marketing in selling more policies so as to maintain level of profitability when clients bought policies at a discounted premiums The above findings concurs with the findings by Charumathi, (2008) according to Charumathi, life insurers are custodians and managers of substantial investments of individuals and policy holders need to be confident that their insurer will be able to meet its promised liabilities in the event that claims are made under a policy.

#### CONCLUSIONS

From the findings, the study established that Premium valuation method is positively significant to influence risk management practices thus the study concludes that Premium valuation methods had positive influence on financial performance of life assurance firms in Kenya. The study established that underwriting guidelines employed by insurance companies in Kisii County increase value of investment and had a positive effect on financial performance of life assurance firms in Kenya.

The study revealed that adjusting claims and benefits paid to policy holders of insurance firms' increase value of investment and this gave a reason for claims adjustment to get the best estimate of acceptable costs for every person which is usually determined by observed costs based on risk factors.

The study ascertained that insurers must be profitable to remain solvent and help other industries come back to their financial normalcy after encountering losses due to risks, insurers who make high profits do depend on money generated internally and even raise their capital internally to finance their projects rather than depending on debt capital because chances of going bankrupt are low when insurers use finances sourced internally which reduces need for external financing and the associated cost hence continuity in profit making increasing financial performance of insurance firms.



This research had intended to assess the influence of risk management practices on financial performance of life assurance firms in Kenya. Other researchers may focus on the relationship between credit risk management and financial performance of insurance firms in Kenya

# RECOMMENDATIONS

Based on the findings, the study recommends that the management on insurance firms should consider adopting Premium valuation methods to ensure financial performance of life assurance firms in Kenya. This will allow the management to create a comprehensive understanding that can be leveraged to influence stakeholders and create better decisions.

The study also recommends that it is crucial that organizations put in place underwriting practices as this will help the organizations to gather valuable information that will provide valuable insights in the strategy and the necessary input to find effective responses to optimize the risks.

The study recommends that the management keeps on monitoring adjusting claims and benefits paid to policy holders of insurance firms' so as to ensure increase in profits. This will help to identify whether the adopted counteractive measures are making any acceptable difference in risk management. .

The study recommends that the management should have an effective Risk management practices. This will help to identify internal and external risks which are likely to cause a significant increase in the budget, disruption of the schedule or financial performance problems. By identifying, avoiding and dealing with potential risks in advance, the organization can respond effectively to the challenges whenever they emerge.

The senior management of the insurance firms should develop and establish provisions of claims' liabilities policies and risk management framework and get those approved from board to avoid frauds. Such policies and procedures shall provide guidance to decreased claim severity and frequency, one practice being that of reducing fraud after a claim has been paid.

# REFERENCES

Adams, M. (1996). Investment earnings and the characteristics of life insurance firms: New Zealand evidence, Australian journal of management, Vol. 21, No. 1,

Akhigbe, A. and Madura, J. (2001). Intra-industry signals resulting from insurance company mergers, The Journal of Risk and Insurance, Vol. 68, No. 3,

Almajali, A. Y., Alamro, S.A. and Al-Soub, Y.Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman stock exchange, Journal of Management Research, Vol. 4, No. 2,



Angell, R. J. and Brewer, B.L., (2003). Improving the Coverage of the DuPont Approach of Financial Analysis in Finance Courses through the Use of the Net Leverage Multiplier Journal of Economics and Finance Education, Vol. 2, No.2,

Anonymous (2007). Enterprise risk management for insurers, Insurance regulatory and development authority (irda) journal,

Association of Kenya Insurers (AKI, 2012). Profitability in the Insurance industry, Journal of the Association of Kenya Insurers, Vol. 8, No. 6,

Ayimey, E. K. Awunyo-Vitor, D. and Abdulai, S. (2013). Customer retention strategies of SIC life insurance company limited and Star life assurance company limited in Ghana: An exploratory assessment, current research journal of social sciences, 5(5),

Badreldin, A. M. (2009). Measuring the Performance of Islamic Banks by Adapting Conventional Ratios, German University in Cairo Faculty of Management Technology Working Paper Series, No.16,

Bacinello, A. R. and Persson, S. A. (1998). Design and Pricing of Equity- Linked Life Insurance under Stochastic Interest Rates, www.brage.bibsys.no/bacinello,

Ball, L. and Mankiw, N. G. (2007). Intergenerational risk sharing in the spirit of Arrow, Debreu and Rawls, with applications to Social Security Design, Journal of Political Economy, 115(4),

Barros, C. P. and Obijiaku, E. L. (2007). Technical efficiency of Nigerian insurance companies, Technical University of Lisbon School of Economics and Management Working Paper Series, No.18,

Bawa, S. K. and Ruchita, M. 2011). Efficiencies of health insurance business in India: An application of DEA, American journal of social and management sciences, 2(2),

Bernard, C. and Lemieux, C. (2008). Fast simulation of equity-linked life insurance contracts with a surrender option, http://www.informs-sim.org/Lemieux,

Boadi, E.K., Antwi, S. and Lartey, V.C. (2013). Determinants of profitability of insurance firms in Ghana, International Journal of Business and Social Research (IJBSR), Vol.3, No.3,

Buehler, K., Freeman, A., and Hulme, R. (2008). The Risk Revolution, McKinsey working paper on risk, No. 1,

Cagil, G. and Karabay, M. E. (2010). An Implementation towards the Evaluation of Financial Performance in Turkish Insurance Sector at Global Crisis Scale, International Journal of Economics and Finance Studies Vol. 2, No. 1,

Charumathi (2012). On the determinants of profitability of Indian life insurers – An empirical study, proceedings of the world congress on Engineering, Vol. 1,

Chaudhary S. and Kiran P. (2011). Life Insurance Industry in India - Current Scenario, International Journal of Management & Business Studies, Vol. 1, Issue 3,

Colbu, I. C. (2013). Comparison of profitability for pharmaceutical Romanian listed companies using DuPont identity, The USV Annals of Economics and Public Administration, 13, 1 (17),

Darbellay (1999). Valuation Methods of a Life Insurance Company, www.fbv.kit/6th/darbellay,

Darzi, T. A. (2011). Financial performance of insurance industry in post liberalization era in India, Unpublished manuscript, University of Kashmir, India,

Dana J. D. (1999). Using yield management to shift demand when the peak time is unknown, Rand Journal of Economics, Vol. 30, No. 3,

Doherty, N. A. and Singer, H. J. (2002). The Benefits of a Secondary Market for Life Insurance Policies, the Wharton Financial Institutions Center Working Paper,

Duffie, D. and Sonnenschein, H. (1989). Arrow and General equilibrium Theory, Journal of Economic Literature, Vol. 16,

Fisk, R. et al. (2010). Customers behaving badly: A state of the art review, research agenda and implications for practitioners, Journal of Services Marketing, Vol. 24, No. 6,



Foss, N. J., Lando, H. and Thomsen, S. (1999). The theory of the firm, Copenhagen and Aarhus **Business Schools**,

Gable, G. G. (1994). Integrating case study and survey research methods: An example in information systems. European Journal of Information Systems 3(2),

Gardner, G., Gardner, A., MacLellan, L. and Orsbornea, S. (2003). Reconceptualising the objectives of a pilot study for clinical research, International Journal of Nursing Studies, Vol.40 (7),

Gitau, B.N. (2013). Strategies adopted by Kenvan insurance companies to alleviate low Insurance penetration. Unpublished manuscript, University of Nairobi, Nairobi.

Glazer, J. and McGuire, T. G. (2000). Optimal Risk Adjustment in Markets with Adverse Selection: An Application to Managed Care, the American economic review Vol. 90, No. 4,

Hamadu, D., Obaji, R. and Oghojafor, B. (2011). Intelligence Information Generation, Dissemination, and Responsiveness in the Performance of Insurance Business in Nigeria, Journal of Marketing Development and Competitiveness, 5(7),

Hawawini, G. and Viallet, C. (1999). Finance for Executives, South-Western College Publishers.

Hayne, R.M. (1994). Extended service contracts, an overview. Casualty actuarial society, 1(1), www.variancejournal.org/issues/018,

Herciu, M., Ogrean, C. and Belascu, L. (2011). A Du Pont Analysis of the 20 Most Profitable Companies in the World, International Conference on Business and Economics Research. Vol.1.

Huang, C., Chiu Y., Lin C. and Liu H. (2012). Using a hybrid systems DEA model to analyze the influence of Automatic banking service on commercial banks' efficiency, Journal of the Operations Research Society of Japan, Vol. 55, No. 4,

Hylland, A. and Zeckhauser, R. (1979). The Efficient Allocation of Individuals to Positions, The Journal of Political Economy, Vol. 87, No. 2,

Kahane, Y. (1979). The theory of Insurance Risk Premiums- A re- examination in the light of recent developments in capital market theory, www.casualtyactuarialsociety.com/153

Kalluci I. (2011). Analysis of the Albanian banking system in a risk performance frame work, 5<sup>th</sup> Annual South-Eastern European Economic Research Workshop,

Kenyayote (2013). Best insurance companies in Kenya, http://www.kenyayote.com,

Khan, S. (2013). Attaining customer satisfaction! The role of customer value and relation base marketing: A study of policy holders of Peshawar Pakistan, international journal of managing value and supply chains (IJMVSC), Vol. 4, No. 1,

Kiragu, S. M. (2014). Assessment of challenges facing insurance companies in building competitive advantage in Kenya: A survey of insurance firms, International Journal of Social Sciences and Entrepreneurship, 1(11),

Kumar, M. and Yadav, G.C. (2013). Liquidity risk management in bank: A conceptual framework, AIMA journal of management & research, 7 (2/4),

Laffont, J. (2002). Public economics yesterday, today and tomorrow, Journal of Public Economics, 86,

Lesch, W.C. and Brinkmann, J. (2011). Consumer insurance fraud/abuse as co-creation and coresponsibility: a new paradigm, Journal of Business Ethics,

Liesz, T. J. and Maranville, S. J. (2008). Ratio analysis featuring the du pont method: An overlooked topic in the finance module of small business management and entrepreneurship courses, Small Business Institute Journal, Vol. 1,

Lundholm, R., Serafeim, G. and Yu, G. (2012). FIN Around the World: The Contribution of Financing Activity to Profitability, Harvard Business School Working Paper, 13 (011),

Mehari, D. and Aemiro, T. (2013). Firm specific factors that determine insurance companies' performance in Ethiopia, European scientific journal, Vol.9, No.10,



Miller, K. D. (1992). A framework for integrated risk management in international business, journal of international business studies, Vol. 23, No. 2,

Mitchell, T., Mitchell, S. and Cai, C. (2013). Using the DuPont Decomposing Process to Create a Marketing Model, Journal of Business & Economics Research, Vol. 11, No.11,

Momo, O.A. and Ukpong, M. S. (2013). Corporate Governance and its effects on the Nigerian Insurance Industry, European Journal of Globalization and Development Research, Vol. 8, No. 1,

Mudaki, A. L., Wanjere, D., Ochieng, I. and Odera, O. (2012). Effects of Operational Factors on Organizational Performance in Kenyan Insurance Industry, International Journal of Business and Social Science, Vol. 3 No. 17,

Munusamy, J., Chelliah, S. and Mun, H. W. (2010), Service quality delivery and its impact on customer satisfaction in the banking sector in Malaysia, International journal of innovation, management and technology, Vol. 1, No. 4,

Ndungu, D. N. and Gekara, M. G. (2014). Effects of insurance risk management practices: A survey of insurance companies in Kenya, International scientific research journal in business and management, 2(2),

Niuguna, A. G. and Arunga, A. (2012). Risk management practices: A survey of micro-insurance service providers in Kenya, international journal of financial research, Vol. 4, No. 1, Nyce, C. (2007). "Predictive Analytics", White Paper.

Ocholla, A. M., Muthama, N. J., and Owino, J. O. (2006). The influence of weather on the insurance industry in Nairobi, African Journal of Science and Technology (AJST), Vol. 7, No.1,

Ongore, V. O. and Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya, International Journal of Economics and Financial Issues Vol. 3, No. 1,

Powell, L. S. (2008). The impact of credit-based insurance scoring on the availability and affordability of insurance, unpublished manuscript, University of Arkansas, Little Rock,

Prokop, J. and Pfeifer, D. (2013). How do you deal with operational risk? A survey of risk management practices in the German insurance sector, Unpublished manuscript, University of Oldenburg, Germany,

Rai, A. K. and Medha, S. (2013). The Antecedents of Customer Loyalty: An Empirical Investigation in Life Insurance Context, Journal of Competitiveness, Vol. 5, Issue 2,

Rakshit, D. (2006). EVA based performance measurement: A case study of Dabur India limited, Vidyasagar University Journal of Commerce, Vol.11,

Raza, S. A., Jawaid, S. T. and Adnan, M. (2013). A DuPont Analysis on Insurance Sector of South Asian Region, http://mpra.ub.uni-muenchen.de/49289,

Ross, J. B. and Perumpral, S. E. (1996). Non medical limits in individual life insurance, Journal of Actuarial Practice, Vol. 4, No. 1,

Saeidy, P. and Kazemipour, S. A. (2011).Compare the performance of private and public insurance companies in using Data Envelopment Analysis, World Applied Sciences Journal 13(5),

Saleem, S. and Abideen, Z. U. 2011). Do effective risk management affect organizational performance, European Journal of Business and Management, Vol. 3, No. 3,

Salimonu, K.K., Falusi, A.O., Okoruwa, V.O. and Yusuf, S.A. (2008). Modeling Efficient Resource Allocation Patterns for Food Crop Farmers in Nigeria: An Application of TMOTAD Analysis, International Journal of Agricultural Economics & Rural Development, 1 (1),

Sambasivam, Y. and Ayele, A. G. (2013). A study on the performance of insurance companies in Ethiopia, International Journal of Marketing, Financial Services & Management Research, Vol.2, No. 7,

Shadbolt, N. M. (2011). Competitive strategy analysis of NZ pastoral farming systems, 18<sup>th</sup> international farm management congress.



Shahroudi, K., Taleghani, M. and Mohammadi, G. (2012). Application of Two-Stage DEA Technique for Efficiencies Measuring of Private Insurance Companies in Iran, International Journal of Applied Operational Research Vol. 1, No. 3,

Sirajudeen, M. (2012). Evaluation of service quality and its impact on customer satisfaction - a life insurance experience, international multidisciplinary research journal, 2(7),

Soekarno S. and Azhari D. A. (2009). Analysis of Financial Ratio to Distinguish Indonesia Joint Venture General Insurance Company Performance using Discriminant Analysis, The Asian Journal of Technology Management Vol. 2, No. 2,

Soliman, M. T. (2008). The Use of DuPont Analysis by Market Participants, the Accounting Review, Vol. 83, No. 3,

Soverall, W. (2012). CLICO's Collapse: Poor Corporate Governance, American International Journal of Contemporary Research, Vol. 2 No. 2,

Stigler, G. J. (1957). Perfect competition: historically contemplated, journal of political economy, Vol. 65, No. 1,

Taani, K. and Banykhaled, M. H. H. (2011). The effect of financial ratios, firm size and cash flows from operating activities on earnings per share: (an applied study: on Jordanian industrial sector), international journal of social sciences and humanity studies Vol. 3, No.1,

Terence, J. (1989). Evaluation: Relating Training to Business Performance. Chaucer.

Thayer-Hart, N., Dykema, J., Elver, K., Schaeffer, N. C. and Stevenson, J. (2010). A guide to designing and implementing surveys, http://www.scribd.com/Survey-Fundamental,

Upadhyay, P. (2013). Satisfaction of the policy holders' protection in insurance sector: A case study, international journal of advanced research in computer science and software engineering, 3(2),

Wanjohi, J. N. and Ombui, K. (2013). Effects of Risk Management Practices on the Performance of Insurance Firms in Kenya: A Case of AIG Insurance Company Ltd, International Journal of Science and Research (IJSR), 2 (9),

Wilper, A.P. et al. (2009). Health Insurance and Mortality in US Adults, American Journal of Public Health, Vol. 99. No. 12.

Wu, D., Yang, Z., Vela, S. and Liang, L. (2007). Simultaneous analysis of production and investment performance of Canadian life and health insurance companies using data envelopment analysis, http://www.sciencedirect.com



## APPENDIX

#### Questionnaire

#### **Underwriting Practices**

In the table below, please indicate your company's total financial assets invested in debt securities in Kenya shillings in regard to the following years:

AMOUNT(Ksh.)/ YEAR	2009	2010	2011	2012	2013
Below one billion					
One to three billion					
Three to five billion					

#### **Premium Valuation Method**

In the table below, please indicate your company's annualized premium income in regard to the given years:

AMOUNT(Ksh.)/ YEAR	2009	2010	2011	2012	2013
Below one billion					
One to three billion					
Three to five billion					
Over five billion					

#### Adjustment provisions of claims' liabilities

In the table below, please indicate your company's claims and policy holders' benefits paid in regard to the given years:

AMOUNT(Ksh.)/ YEAR	2009	2010	2011	2012	2013
Below one billion					
One to three billion					
Three to five billion					
Over five billion					

## **Financial performance**

What was your company's position in terms of estimating inflation in the following years?

INFLATION/ YEAR	2009	2010	2011	2012	2013
Over estimated					
Well estimated					
Under estimated					

