



THE EFFECT OF IRA REGULATION ON INSURANCE PENETRATION IN KENYA

^{1*} **Wanjiru Rachael Muriuki**
remarkableray@gmail.com

^{2**} **Mwikamba Tumaini Mutugi**
mkanake@gmail.com

^{1*} Daystar University

^{2**} Lecturer, Jomo Kenyatta University of Agriculture and Technology

Abstract

The overall aim of this study was to evaluate the effect of IRA regulatory framework on insurance penetration in Kenya with a focus on the Compliance officers at the Insurance Regulatory Authority (IRA). The research objectives of this study were: First, to determine the effect of IRA price regulation model on insurance penetration in Kenya. Secondly, to determine the influence of IRA fraud management model on insurance penetration in Kenya. Thirdly, to evaluate the effect of IRA competition regulation model on insurance penetration in Kenya. Lastly, to examine the challenges and measures implemented by IRA to enhance insurance penetration in Kenya. This study will be of significance to researchers, scholars, IRA and other insurance industry players. The study was descriptive in research design. It furthermore utilized quantitative and qualitative research approaches. The study's target population were all the 75 compliance officials at IRA. A census was conducted on the target population. Questionnaires were utilized as the data collection instruments for the study. Descriptive statistics was used to draw inference from the data collected. The findings revealed that IRA regulatory framework affects penetration of insurance with the pricing factor negatively affecting insurance penetration. Based on this, the researcher recommended partnership of the IRA and all insurance industry players to develop and design product and pricing structures targeting Kenyans in the different financial levels. In addition, the public needs to be educated on the risks they are exposed to using practical examples and ways of managing those risks.

Keywords: Insurance, Insurance Penetration, and Insurance Regulation

1. Introduction

Efficiency The objective of economic regulation should be to mitigate the impact of significant market imperfections (or market “failures”) compared to the ideal of a perfectly competitive market (Niehaus & Harrington, 2005). This is such that the characteristics of the market are to differ significantly from those of a perfectly competitive market, then there would be need for regulation. Insurance companies are heavily regulated – to protect policyholders from the threat of an insurer’s insolvency. If the company goes bankrupt, policyholders may lose much of their investment in promised insurance benefits (Valuing insurance companies, 2000). In Kenya, IRA monitors insurance companies to ensure that they are solvent enough to pay off claims. Claims paid lead to customers gaining trust of the insurance industry and therefore more confidence in spending on insurance products (Jus, 2013).

Insurance penetration is determined by the uptake of insurance products (Maseke, 2013). Penetration is concerned with the market share. Recent studies by OECD has the found out that the penetration rate for the United Kingdom, United States and the European Union were 13.4, 11.6 and 8.3 respectively. According to the reinsurer Swiss Re’s global insurance report, total premiums in Africa amounted to US\$71.9 billion in 2012, which translates into a penetration rate of 3.65% (KPMG Africa Limited, 2014). By the end of December 2013, the shareholders’ funds in the entire Kenya insurance industry amounted to KES 98.2 billion while the entire insurance industry assets amounted to KES 358 billion as at the end of the fourth quarter of 2013 (IRA, 2014).

Natural disasters are increasingly making headline news, due to the impact of modern communications and connectivity, and the proliferation of TV and news media (Artmanand, 1992). Ndulu et al., (2008) noted that African economies may well face

more risk than other countries. While insurance may seem an expensive option, the initial capital to start and get back to one’s original position before the loss may be relatively hard to find.

Insurance acts on the principle of a promise to compensate in the event of a loss, on this note individuals and organization safeguard their wealth from future losses (Rejda & McNamara, 2016). Baltensperger et al., (2007) defines insurance as an arrangement providing individual protection against the risk of losses resulting from various perils, or hazards, through pooling of risks. This is done at a price usually called the premium. Khan (n.d.) is quoted saying that insurance helps in stabilizing the financials of individuals, companies and the state and that in the absence of sufficient financial funds to enable them to resume operations in the wake of a loss and without insurance, these projects would be reduced to nothing more than white elephants.

Insurance companies are major institutional investors supplying long-term capital for government and industry, obtaining their funds from their shareholders and policyholders, and that insurance companies traditionally have invested most of their funds in government stocks and other fixed-interest securities (Diacon & Carter, 1992). Herron (2000); Wolksi and Zaleczna (2011) argue that there are often two separate companies under one corporate roof-the insurance company and the investment company and that the investment policy is pursued through designing a portfolio pursuant to the principles of safety, liquidity and profitability. This is to ensure that insurers are in a position to settle claims as they arise.

In Kenya, there is notable and consistent growth in the insurance industry with the industry’s gross written premiums amounting to KES 131 billion by the end of the fourth quarter of 2013, representing an increase of 20.6% from KES 108.6 billion recorded by the end of the same period in the

previous year (IRA, 2014). While there gross written premiums increased by 11.4 per cent to Ksh 108.61 billion compared to Ksh 97.49 billion by the end of the same period in 2011 (Kenya Institute for Public Policy Research and Analysis, 2013) but the growth in penetration of insurance is low. There is a lot of experimenting with various insurance policies targeting mass market but the uptake of those products is still very low.

The Insurance Regulatory Authority is a statutory government agency established under the Insurance Act (Amendment) 2006, CAP 487 of the Laws of Kenya to regulate, supervise and develop the insurance industry (Insurance Regulatory Authority, n.d.). It is headed by a board of directors and run by the Commissioner of Insurance who is also the CEO (Insurance Regulatory Authority, n.d.). It is IRA's role to control product pricing and manage the costs of administration.

2. Statement of the Problem

Of concern is whether the various industry players understand the importance of regulation and whether they comply. It is necessary to evaluate whether the strategies deployed are adequate, whether they are effective and ways of improving the regulation, and the attitudes of the players in response to new regulation. Also of importance is whether regulation meets the needs of the consumers. The aim of this study is to identify and analyse the effective strategies that are in place and the effects on penetration of insurance in Kenya with a focus on Kenya's insurance regulator, the Insurance Regulatory Authority (IRA).

Niehaus and Harrington (2005) suggest that most insurers are likely to support some degree of regulation to prevent harm to the reputation of the entire industry. Insurance companies in Kenya have a poor reputation, eight insurance firms have collapsed or have been placed under statutory management; representing an average of one

insurance company after every four years (Olweny & Wanyama, 2013). This is in contrast to the Reinsurance firms that are historically subject to minimal regulatory oversight because both buyers and sellers are usually well informed (Skipper & Klein, 1999).

Of concern is whether the various industry players understand the importance of regulation and whether they comply. It is necessary to evaluate whether the strategies deployed are adequate, whether they are effective and ways of improving the regulation, and the attitudes of the players in response to new regulation. Also of importance is whether regulation meets the needs of the consumers. As the market evolves, changing dynamics of insurance pose a challenge to the industry as it attracts other players such as banks, international insurers and religious based insurers such as Takaful. The high number of stakeholders that also includes the regulator and the insurance consumers result in a complex network that is difficult to monitor.

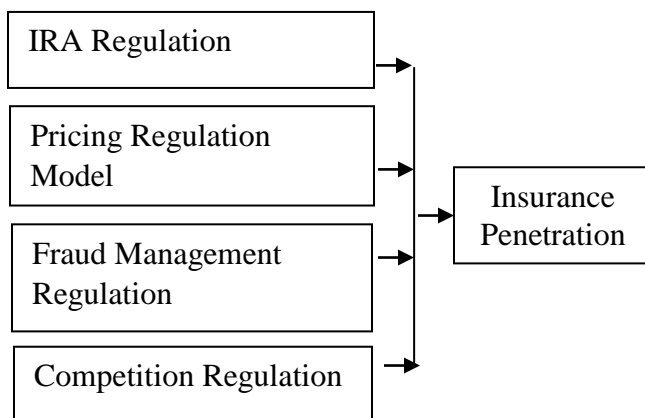
The regulator is responsible of all the industry players' performance. The actions determine the customer's perception of insurance. Insurance Regulatory Authority (IRA) is therefore in a good position to control and impose rules and guidelines that improve perception of insurance towards an increased uptake of insurance. The aim of this study is to identify and analyse the effective strategies that are in place and the effects on penetration of insurance in Kenya with a focus on Kenya's insurance regulator IRA.

3. Research Objectives

The overall objective of this study was to analyze the effect IRA regulation on insurance penetration in Kenya. The specific objectives of this study were to:

1. Determine the effect of IRA price regulation model on insurance penetration in Kenya
2. Determine the influence of IRA fraud management model on insurance penetration in Kenya.
3. Evaluate the effect of IRA competition regulation model on insurance penetration in Kenya.
4. Examine the challenges and measures implemented by IRA to enhance insurance penetration in Kenya.

4. Conceptual Framework



5. Research Questions

1. How does the regulatory framework affect penetration of insurance in Kenya?
2. What measures can IRA adopt to increase the insurance market penetration?
3. What are the challenges faced in implementing insurance regulations that inhibit substantial penetration of insurance in Kenya?

6. Theoretical Review

i. Public interest theory of regulation

There are two main economic theories of regulation; the public interest theory of regulation and the private interest theory. Insurance regulation

is favoured by the public interest theory of regulation. According to Hertog (2010), the public interest theory of regulation assumes that regulators have sufficient information and enforcement powers to effectively promote the public interest and continues to elaborate that the information is with respect to cost, demand, quality and other dimensions of firm behaviour. Niehaus and Harrington (2005) argue that the decision to regulate is based on whether characteristics of the market differ significantly from those of a competitive market described by numbers of sellers with relatively low market shares and low cost of entry by new firms; low cost of information to firms and an absence of spillovers.

This is in contrast to the private interest theory of regulation where the regulator does not have sufficient information about the market, and he may therefore not always act in the best interest of the consumers. The two theories may however not be completely opposites, as the private interest model is not inconsistent with some sorts of efficient regulation. Enhanced efficiency increases the wealth of society (Haddock & Macey, 1987). And as argued by the agency theory, that unless firms are monitored constantly they act in self-interest, which might be at variance with interests of residual claimants most importantly those of shareholders (Bhattacharyya & Phani, 2004). The Insurance firms will aim to maximise their returns at the cost of the policyholder, while claimants will maximise on claims to the point bordering fraud. Other industry players paid on commission may tend to increase charges on either of the two parties to increase their remunerations. This therefore makes regulation a necessity to protect the stakeholders from themselves. It thus becomes a challenge for IRA to monitor and govern all the players and the risk management to control claims made.

ii. Diffusion of innovation theory

The regulatory framework is also based on the diffusion of innovation theory. Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 1995). There are five attributes of innovation that have been described by Rogers (2005) that showed an individual's perception of these attitudes predict an innovations rate of adoption which include relative advantage, compatibility, complexity, triability and observability. He also suggests that the diffusion theory takes into account the innovation-decision process (that is knowledge, persuasion, decision, implementation and confirmation) and the innovation-development process (that is needs, research, development, commercialization, diffusion & adoption and consequences. Insurance regulatory and successes in penetration will thus be dependent on objective regulation by IRA and on the favourable environment developed and encouraged.

7. Empirical Review

Insurance penetration is the written premiums as a share of GDP (Rejda & McNamara, 2016). In the advanced markets, following the 2011 economic depression, according to Swiss Re Sigma (2012), the economic growth surpassed insurance market growth, overall insurance penetration shrank to 8.6%. And it has continued to decline with a reported decline to 4.7% in 2013 on life insurance (Swiss Re Sigma, 2014). Some of the countries consisting of advanced markets are North and Central America, Europe and Australia. Taiwan has the highest penetration rate with approximately 18% penetration rate on both life and non-life insurance.

In the emerging markets, insurance penetration increased but below the rounding of one digit, leaving the headline valued unchanged at 2.7% in 2013 (Swiss Re Sigma, 2014). In the markets of Asia and Latin America, the use of multiple

distribution channels has also helped insurance to reach a broader audience (Swiss Re, 2011). But the promise of emerging markets is tempered by the realisation that achieving profitable results in these areas can be challenging due to myriad reasons including high set-up costs and a long period to break-even in young insurance markets (Lloyd's 360° Risk Insight, 2014). South Africa has the highest penetration rate in this category.

In Kenya, like most African countries that fall in the developing markets, insurance penetration is low indicating it is largely underinsured. Lloyd's 360° Risk Insight (2014), "It is the poorest people in the world who are most in need of the security that insurance brings," this is because they have little access to health services and they are more likely to live in areas which are prone to floods or natural disasters. This exposes the nations to devastating catastrophes that lead to massive losses and without any form of insurance, both investors and homeowners are forced to start building their businesses and homes once more.

Olayungbo and Akinlo (2016) argue that although insurance penetration in Africa is still low; insurance companies play a vital role in determining economic growth of African nations. These are the findings of their study which was carried out in eight African countries for the period between 1970 and 2013. According to Olayungbo and Akinlo (2016), one of the strategies that African countries can implement to increase insurance penetration is through the setting up of effective insurance regulations.

Nielsson (2009) recommends regulating risk to ensure a sound and stable financial system, i.e. preventing systematic collapses. Proposals set out to achieve this objective include requiring financial institutions to keep adequate capital available as a cushion against negative market outcomes. The classical, normative (i.e. how it should work) view of economic regulation is that its objectives should

be to mitigate the impact of significant market imperfections (or market “failures”) compared to the ideal of a perfectly competitive market (Niehaus & Harrington, 2005). This is such that the characteristics of the market are to differ significantly from those of a perfectly competitive market, then there would be need for regulation. A perfectly competitive market is defined by a large number of buyers and sellers, readily available information and low cost of entry. Thus a market with few sellers and high cost/barriers to entry would suggest that the sellers have the power to increase prices on their own free will (above the marginal cost). While according to the capture theory, the prediction is that regulation often will benefit the regulated industry at the expense of consumers (Harrington & Niehaus, 2003). IRA has to find a balance between meeting its objectives of protecting consumers and overregulation.

Similarly, Park, Borde and Choi (2002) researched on the factors which influence insurance penetration. Park *et al.*, (2002) argue that empirical literature focuses on the relationship between macroeconomic variables and insurance penetration. However, empirical literature is inconclusive with reference to how sociocultural variables influence insurance penetration. Therefore, Park *et al.*, (2002) set out to fill this gap in literature. Their study sample was collected from 37 countries. The findings revealed the following as some of the sociocultural factors which influence insurance penetration: aggregate income, government regulation, and masculinity and feminism factors.

Bhoola *et al.*, (2014) argue that insurance regulation has over the last decade been increasing across the African continent. For this reason, they carried out a study to determine its effect on the growth of the insurance industry. According to Bhoola *et al.*, (2014), insurance firms need to familiarize themselves and comply with the

government regulations in order to continue being profitable. In addition, there are some regulations which if implemented will result in an increase in market opportunities for insurance firms. In this vein, Libuli, Sakataka and Wandera (2014) investigated strategic measures adopted by insurance firms in Uasin Gishu County to enhance insurance penetration. The study sampled various insurance firms operating within the county. The findings revealed that insurance regulation and insurance regulators played a critical role within the insurance industry. The findings from these studies reveal the significance of insurance regulation to the insurance industry. However, these studies do not highlight the influence of specific regulations on insurance penetration.

According to Schiller and Hill (2013), the main challenges of regulation are costs. These costs include administration costs, compliance costs and efficiency costs. Administration costs would include the time and pay trade-offs to the officers that ensure the industry players follow the rules and guidelines. Compliance costs include the charges imposed on the players as annual transactional fees for certification and standard expectations. In addition to other levies, this may exhibit a less than attractive investment for any investor. Efficiency costs are determined by the mix of output that is products being sold and the quality of agents getting insurance to consumers.

Gitau (2013) recent study based on insurance low penetration made an assumption that in a growing market maintaining market share would result in growth and there may exist opportunities to increase market share if competitors reach capacity limits. The study focused on Ansoff’s matrix whose strategies are market penetration, market development, product development and diversification. This study assumes that insurance penetration is at the mercy of the only insurance company’s strategy on products. While this is a

factor as seen on the discussion on the diffusion theory above on innovation, without a supportive environment the industry would not flourish. The IRA provide an appropriate healthy environment for insurance to succeed and grow.

8. Research Methodology

This study utilized descriptive research design to test the variables and find the relationship between insurance regulation and penetration of insurance in Kenya. The population for the study was Insurance Regulatory Authority staff compliance officials. The target population were all the staff compliance officials that are seventy five (75) in number. This population had observable characteristics to which the study intended to generalise the results of the study. Due to the small population at IRA, the researcher carried out a census. Data was collected through the primary data collection technique. Questionnaires were utilized as the study’s data collection instrument. The Statistical Package for Social Science (SPSS) was utilized for quantitative data analysis. Descriptive statistics was utilized to draw inference from the data collected.

9. Data Analysis and Interpretation

A total of 48(64%) of respondents responded to the study’s data collection instrument. However, 27(36%) of the respondents did not respond to the questionnaire. According to Mugenda and Mugenda (2003), a response rate of above 50% is sufficient for data analysis.

i. Effect of insurance regulation on insurance penetration

Table 1 presents the responses of the respondents with reference to the effect of IRA price regulation framework on insurance penetration in Kenya.

Table 1: Effect of IRA Price Regulation on Insurance Penetration

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-----------|---------|-----------|-------------------|
| The pricing models adopted by IRA have significantly influenced insurance penetration in Kenya | 14(29.2%) | 22(45.8%) | 3(6.3%) | 7(14.6%) | 2(4.1%) |
| Pricing models guided by IRA have increased insurance penetration in Kenya. | 2(4.2%) | 6(12.5%) | 4(8.3%) | 20(41.7%) | 16(33.3%) |

According to Table 1, 36(75%) of the respondents agreed with the notion that pricing models significantly affected insurance penetration. However, 9(18.7%) respondents disagreed with this notion. This suggests that the pricing models adopted by IRA have significantly influenced insurance penetration in Kenya. Table 1 further presents the responses of the respondents with reference to whether the pricing models guided by IRA have increased insurance penetration in Kenya. According to the findings, 36(75%) respondents disagreed that pricing models have improved insurance penetration. Only 8(16.7%) agreed that IRA pricing helped increase the penetration of insurance. This finding suggests that pricing models guided by IRA have not increased or helped improve insurance penetration in Kenya.

Table 2 presents the responses of the respondents with respect to the effect of IRA risk and fraud management regulation framework on insurance penetration in Kenya. According to Table 2, 42(87.5%) respondents were of the opinion that risk management and fraud management strategies adversely affected insurance penetration. However, 4 (8.3%) respondents did not agree with this opinion. This suggests that poor adoption of risk management and fraud management strategies adversely affects insurance penetration in Kenya.

Table 2: Effect of IRA Risk and Fraud Management Regulation on Insurance Penetration

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-----------|---------|----------|-------------------|
| Poor adoption of risk management and fraud strategies adversely affect insurance penetration in Kenya | 17(35.4%) | 25(52.1%) | 2(4.2%) | 4(8.3%) | 0(0%) |
| Enhanced risk management and fraud strategies issued by IRA can significantly contribute to increased insurance intake. | 14(29.1%) | 26(54.2%) | 1(2.1%) | 6(12.5%) | 1(2.1%) |

Table 2 further presents the responses of the respondents with reference to whether enhanced risk management and fraud strategies issued by IRA can significantly contribute to increased insurance intake. Majority of the respondents agreed to an enhanced risk management and fraud strategies significantly increasing insurance uptake. According to the findings, 40(83.3%) respondents agree with this opinion. However, 7(14.6%) respondents disagreed with this opinion. This suggests that enhanced risk management and fraud strategies issued by IRA can significantly contribute to increased insurance intake.

Table 3 presents the responses of the respondents with reference to the effect of IRA competition regulation framework on insurance penetration in Kenya.

Table 3: Effect of IRA Competition Regulation on Insurance Penetration

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-----------|----------|-----------|-------------------|
| Competition in the insurance industry influences insurance penetration in Kenya | 8(16.7%) | 29(60.4%) | 5(10.4%) | 6(12.5%) | 0(0%) |
| IRA guidelines on competition within the insurance industry can significantly result in increased insurance intake. | 0(0%) | 3(6.3%) | 3(6.3%) | 28(58.3%) | 14(29.1%) |

Table 3 presents the responses of the respondents with reference to whether competition in the insurance industry had influenced insurance penetration in Kenya. From the findings, it was evident that competition in the insurance industry influences insurance penetration in Kenya as noted from the responses received. The responses revealed that 37(77.1%) respondents agree while 6(12.5%) respondents disagreed with this opinion. This suggests that competition between the insurance companies influences the level of insurance penetration. Table 3 further presents the responses of the respondents with reference to whether IRA guidelines on competition within the insurance industry can significantly result in increased insurance intake. The findings revealed that 42(87.4%) respondents disagreed that regulatory guidelines on competition could enhance insurance intake. However, 3(6.3%) respondents agreed this opinion. This suggests that IRA guidelines on competition within the insurance industry may not result in increased insurance uptake as noted from the responses.

ii. Measures IRA can adopt to increase insurance penetration

Table 4 presents the responses of the respondents with reference to the factors IRA can adopt to increase on insurance penetration in Kenya.

Table 4: IRA Measure aimed at enhancing Insurance Penetration

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|----------------|-----------|---------|----------|-------------------|
| Better pricing models can enhance diverse customized products. | 15(31.3%) | 28(58.3%) | 3(6.3%) | 2(4.2%) | 0(0%) |
| Risk management and fraud strategies can enhance insurance penetration. | 13(27.1%) | 23(47.9%) | 4(8.3%) | 6(12.5%) | 2(4.2%) |
| Fair competition among the players will result in increase intake of insurance. | 11(22.9%) | 18(37.5%) | 4(8.3%) | 9(18.8%) | 6(12.5%) |

Table 4 presents the responses of the respondents with reference to whether better pricing models can enhance diverse customized products. According to the findings, 43(89.6%) respondents agreed that with this opinion. However, 2(4.2%) respondents disagree with this opinion. This suggests that if IRA adopts better pricing models insurance penetration will increase substantially. According to the findings presented on Table 4 above, 36(75%) respondents agreed with the view that risk management and fraud strategies can enhance insurance penetration. However, 8(16.7%) respondents disagreed with this view. This finding suggests that enhanced risk and fraud management strategies can enhance insurance penetration. Table 4 further presents the responses of the respondents with reference to whether fair competition among the players can result in increase intake of insurance in Kenya. According to the findings, 29(60.4%) respondents agreed with this opinion. However, 15(31.3%) disagreed with this view. This suggests that enhanced fair competition can enhance insurance penetration.

iii. Challenges of implement insurance regulation in Kenya

The findings identified the following as the factors that influence insurance penetration: negative perception, public ignorance, insurance substitutes, low rate of savings, and affordability of insurance products. Study findings further identified insurance companies as the institutions that are the biggest impediments to IRA insurance regulation. According to the findings, 41.7% of the respondents think that unsupportive players were the main challenge in implementing the regulatory guidelines. In addition, 16.7% blamed it on the cost of regulation being high while an 8.3% population thought there was a sense of overregulation of the industry. Others that made a significant proportion of 33.3% concluded that competition, low penalties

and unenforced regulation were the main challenges in implementation of the guidelines.

10. Conclusions of the Study

Findings from the study suggest that the regulatory framework affects penetration of insurance with the pricing factor negatively affecting insurance penetration. As a result, most Kenyans will seek substitute insurances to shield themselves from future unknown events. IRA has an opportunity of mobilising other industry players to generate market oriented products with affordable premiums for each sector enabling all Kenyans access insurance services. The regulatory framework on risk management and fraud although in place should be evaluated as it is a major loophole in which insurers lose their income. Consumers of insurance are more appreciative of factors affecting the cost of insurance if it is clearly broken down for them that is including investments on claims analysis procedures. The penalties should also be raised and always enforced to ensure consistency and a basis for all players to willingly comply.

IRA regulations may hinder a perfectly competitive market from thriving by controlling prices. But IRA focusing on promoting and protecting all stakeholders; insurance firms from fraudulent claims and customers from unpaid claims among others, should make all parties feel comfortable making investments into the industry.

11. Recommendations of the Study

First, the researcher recommends partnership of the IRA and all insurance industry players to develop and design product and pricing structures targeting Kenyans in the different financial levels. To also partner with the Competitions Authority of Kenya (CAK) to align both Acts and reduce infringements on businesses and customers rights. Secondly, the researcher also recommends an intense focus on fraud management. The Insurance Fraud Unit should increase the number of personnel at

supervisory and investigative levels to manage fraud cases as a short term effective solution. This will particularly create a sense of fear in any perpetrators and therefore reduce the cases that succeed. Thirdly, the researcher would recommend revision of the penalties and harsher ones passed into law, which is against fraudulent customers and uncompliant insurance firms. Then IRA to religiously implement without failure as this creates the impression of a professional industry. Lastly, the researcher further proposes education of the general public by creating an awareness of the risks they are exposed to using practical examples and

ways of managing those risks. The same forum to look into the procedures of taking up insurance to reporting claims and all documentation required.

12. Recommendations for Further Study

This study was done only on IRA and a limited number of insurance companies. Further studies can be extended to a wide scope of other insurance stakeholders such as brokers, agents, MIPS within and outside Kenya. The researcher also picked out from the respondents an issue on the cost involving heavy discounts at the expense of proper risk assessment and underwriting.

References

- Artmanand. (1992). Insurance and disaster management: the Indian context. *Disaster Prevention and Management: An International Journal*, 12(4).
- Baltensperger, E., Buomberger, P., Luppia, A. A., Wicki, A., & Keller B. (2007, September). Regulation and intervention in the insurance industry - fundamental issues. p.9.
- Bhattacharyya, A. K., & Phani, B. V. (2004). Economic value added – A general perspective. *Decision*, 27(2), Retrieved from <https://ssrn.com/abstract=545444>
- Bhoola, K., Madzhadzi, T., Narayan, J., Strydom, S., & Heerden, H. (2014). Insurance regulation in Africa: Impact on insurance and growth strategies. Retrieved May 23, 2017, from <http://actuarialsocietyconvention.org.za/convention2014/assets/pdf/papers/2014%20AS%20Bhoola%20Madzhadzi.pdf>.
- Diacon, S. R., & Carter, R. L. (1992). *Success in insurance* (3rd ed.). London: John Murray Publishers Ltd .
- Gitau, B. N. (2013). *Strategies adopted by Kenyan insurance companies to alleviate low insurance penetration*. Nairobi.
- Haddock, D. D., & Macey, J. R. (1987). Regulation on demand: A private interest model, with an application to insider trading regulation. *The Journal of Law and Economics*, 30(2), 311-352.
- Harrington, S. E., & Niehaus, G. R. (2003). *Risk management and insurance*. (2nd ed.). Boston: McGraw-Hill Publishers.
- Herron, D. J. (2000). *Insurance company investments*.
- Hertog, J. (2010). *Review of economic theories of regulation*. Tjalling C. Koopmans Research Institute, Utrecht School of Economics. Utrecht: Utrecht University.
- Insurance Regulatory Authority. (n.d.). The Role of the Insurance Regulatory Authority in the development of the insurance industry in Kenya.
- IRA. (2014). *Insurance Industry Report for the Period*. Insurance Regulatory Authority, Nairobi.
- Jus, M. (2013). *Credit insurance*. Oxford: Academic Press.

- Kenya Institute for Public Policy Research and Analysis. (2013). Kenya economic report 2013. p.103. Retrieved from <http://www.kippra.org/downloads/Kenya Economic Report 2013.pdf>
- Khan, Z. *Importance of Insurance in Our Economy*. Retrieved from http://www.efuinsurance.com/newsletter/pdf/issue95_96_pdf/importance_insurance.pdf
- KPMG Africa Limited. (2014). *Insurance in Africa*.
- Libuli, D. O., Sakataka, W., & Wandera, R. (2014). An assessment of operational strategies influencing growth of insurance industry in Uasin Gichu County, Kenya. *International Journal of Managerial Studies and Research*, 2(10), 36-45.
- Lloyd's 360° Risk Insight. (2014). *Insurance in developing countries: Exploiting opportunities in micro insurance*. London: Lloyds.
- Masese, R. N. (2013). *Factors influencing uptake of insurance services in Kenya: A case of life insurance services at Britam-Mombasa Branch*. Unpublished Masters dissertation. University of Nairobi, Nairobi
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Nairobi: Acts Press
- Ndulu, B. J., O'Connell, S. A., Bates, R. H., Collier, P., & Sodudo, C. C. (2008). *The political economy of economic growth in Africa*. Africa Economic Research Consortium. New York: Cambridge University Press.
- Niehaus, G. & Harrington, S. (2005). *Risk management and insurance*. Tata McGraw-Hill Publishing Company Ltd, India.
- Nielsson, U. (2009). Measuring and regulating extreme risk. *Journal of Financial Regulation and Compliance*, 17(2), 159. Retrieved from <http://www.emeraldinsight.com/doi/full/10.1108/13581980910952595>
- Olayungbo, D. O., & Akinlo, A. E. (2016). Insurance penetration and economic growth in Africa: Dynamic effects analysis using Bayesian TVP-VAR approach. *Cogent Economics & Finance*, 4(1), 123-139.
- Olweny, T. & Wanyama, D. (2013). Effects of Corporate Governance on Financial Performance of Listed Insurance Firms in Kenya.
- Park, H., Borde, S. F., & Choi, Y. (2002). Determinants of insurance pervasiveness: A cross national analysis. *International Business Review*, 11(1), 79-96.
- Rejda, G. E., & McNamara, M. (2016). *Principles of risk management*. London: Pearson Education.
- Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York: The Free Press.
- Rogers, E. M. (2005). *Diffusion of innovations* (5th ed.). New York: The Free Press.
- Schiller, B., & Hill, C. (2013). *Essentials of economics*. New York: McGraw-Hill Education.
- Skipper, H. & Klein, R. (1999). Insurance regulation in the public interest: The path towards solvent, competitive markets. Retrieved from

http://rmictr.gsu.edu/Papers/Competitive_Markets.pdf on 15-6-2013

Swiss Re Sigma. (2012). World Insurance in 2011: Non-life ready for take-off. *Sigma*, 3/2012.

Swiss Re Sigma. (2014). *Digital distribution in insurance: A quiet revolution*. Economic Research & Consulting. Zürich: Swiss Re.

Valuing insurance companies. (2000). *Balance sheet*, 8(6), 36-46.

Wolski, R., & Zaleczna, M. (2011). The real estate investment of insurance companies in Poland. *Journal of investment and finance*, 29(1), 74-82.