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Influence of Innovation on Performance of Insurance Companies in Kenya

Kiragu Rachael Wangu

Submitted in partial fulfillment of the requirement for award of Degree of Master of Commerce at Strathmore University

School of Management and Commerce
Strathmore University
Nairobi, Kenya

JUNE, 2016

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Kiragu Rachael Wangu

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10th June, 2016

Approval

The thesis of Kiragu Rachael Wangu was reviewed and approved by the following:

Dr. Tabitha Waithaka

Lecturer, School of Management and Commerce

Strathmore University

Dr. David Wang'ombe

Dean, School of Management and Commerce

Strathmore University

Prof. Ruth Kiraka

Dean, School of Graduate Studies

Strathmore University

ABSTRACT

The need for improved performance by insurance companies in Kenya in both life and non-life segments has been underscored and innovation has been identified as a means to boost performance. The main objective of this study was to determine the influence of innovation on performance of insurance companies in Kenya. The study adopted the use of a descriptive crosssectional design. A census survey was used with the study population comprising all 49 insurance companies operational in Kenya as at 31st December 2014. Primary data was collected using structured questionnaires. Data was analyzed using SPSS statistical package program version 22 for descriptive and inferential statistics. The results of the study revealed that product innovation positively and significantly influences organizational performance (\beta=57271.822, t=2.423, p<0.05) and process innovation positively and significantly influences organizational performance (β =91651.229, t=2.485, p<0.05). No evidence was found for a significant relationship between market innovation and performance (β =20108.084, t=0.196, p>0.05). The results also showed that process innovation was the most predominant type of innovation in the insurance industry in Kenya. Additionally, the survey found that among the three types of innovation studied, process innovation registered the strongest correlation to organizational performance (coefficient value 0.584, 0.01 level of significance, and p value 0.001). The study recommends that management of insurance companies in Kenya should place greater emphasis on process innovation in order to improve performance. Further research should adopt a longitudinal research design, multiple informant approach, wider scope of study and the use of both objective and subjective measures to assess performance. These will give useful insight into the relationship between the variables under study.

Table of Contents DECLARATION......ii ABSTRACT......iii LIST OF FIGURESviii LIST OF TABLESix ACKNOWLEDGEMENT.....x DEDICATION......xi CHAPTER ONE 1 INTRODUCTION......1 1.1.1 Innovation ______1 1.1.2 Organizational Performance _______2 1.4 Research Questions 7 CHAPTER TWO9 LITERATURE REVIEW9 2.1 Introduction 9 2.2 Theoretical Background 9 2.2.2 Resource-Based View 10

	2.3 Empirical Review	10
	2.3.1 Product Innovation and Organizational Performance	10
	2.3.2 Process Innovation and Organizational Performance	12
	2.3.3 Market Innovation and Organizational Performance	13
	2.4 Gaps in Research	14
	2.5 Conceptual framework	15
	2.6 Operationalization of Variables	16
C	HAPTER THREE	18
R	ESEARCH METHODOLOGY	18
	3.1 Introduction	18
	3.2 Research Design.	18
	3.3 Population	18
	3.4 Data Collection Methods	18
	3.5 Reliability Tests	19
	3.6 Validity of the Study	19
	3.7 Data Analysis and Presentation	20
	3.8 Ethical Consideration	20
C	HAPTER FOUR	21
P.	RESENTATION OF RESEARCH FINDINGS	21
	4.1 Introduction	21
	4.2 Response Rate	21
	4.3 Demographic Information	21
	4.3.1 Ownership Structure	22
	4.3.2 Type of Insurance	22
	4.3.3 Classes of Business Offered	23

4.4 Predominant Types of Innovation	23
4.5 Product Innovation and Organizational Performance	24
4.6 Process Innovation and Organizational Performance	25
4.7 Market Innovation and Organizational Performance	26
4.8 Summary of Mean Scores	27
4.9 Organizational Performance	27
4.10 Inferential Statistics	29
4.10.1 Correlation Analysis	29
4.10.2 Regression Analysis	31
CHAPTER FIVE	34
DISCUSSION, CONCLUSION AND RECOMMENDATIONS	34
5.1 Introduction	34
5.2 Discussion of Findings	
5.2.1 Predominant Types of Innovation	34
5.2.2 Extent to which Product Innovation Influences Performance of Insurance Comp	
in Kenya	
5.2.3 Extent to which Process Innovation Influences Performance of Insurance Com-	
in Kenya	
5.2.4 Extent to which Market Innovation Influences Performance of Insurance Commin Kenya	-
5.3 Conclusion	
5.4 Recommendations	
5.5 Limitations of the Study	
5.6 Areas of Further Research	
REFERENCES	
A DDENDICES	37

Appendix I: Letter of Introduction	44
Appendix II: Questionnaire	45
Appendix III: Names and Addresses of Insurance Companies in Kenya as at 31st De	ecember
2014	49



LIST OF FIGURES



LIST OF TABLES

Table 2.1: Operationalization of Study Variables	17
Table 3.1: Reliability Statistics	19
Table 4.1: Response Rate	21
Table 4.2: Ownership Structure	22
Table 4.3: Type of Insurance	22
Table 4.4: Classes of Business Offered	23
Table 4.5: Predominant Types of Innovation	24
Table 4.6: Product Innovation and Organizational Performance	24
Table 4.7: Process Innovation and Organizational Performance	25
Table 4.8: Market Innovation and Organizational Performance	26
Table 4.9: Summary of Mean Scores	27
Table 4.10: Sales Turnover - Gross Written Premiums ((2013 – 2015)	28
Table 4.11: Growth in Gross Written Annual Premium (2013 - 2015)	29
Table 4.12: Correlation Matrix	30
Table 4.13: Model Summary	31
Table 4.14: ANOVA Results	
Table 4.15: Regression Coefficients	32

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DEDICATION

To my parents, Kiragu wa Magochi and Rosemary Wandia Kiragu, and siblings Ciku, Mwangi and Macharia. Thank you for your prayers and continuous support during this journey.



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Performance of insurance companies in Kenya remains low with the overall insurance penetration at 2.93% in 2014 down from 3.44% in 2013 (Association of Kenya Insurers Report [AKI], 2014). This has been attributed to low consumer knowledge and little awareness of insurance products, negative perception of insurance practices, low consumer purchasing power, low returns as compared to other investment options, poor service and unhealthy competition among insurers (Gitau, 2013). Despite this scenario, industry players are optimistic about the growth potential of insurance in Kenya as low penetration experienced suggests that significant opportunities exist in the market. Further the mergers and acquisitions witnessed in the industry in 2014 indicate investor confidence in the attractiveness, growth potential and stability of the insurance sector in Kenya (AKI Report, 2014). However, the entry of new players in the industry not only signifies growth opportunities but also signals higher competition resulting to dwindling fortunes for already existing market players (Gitau, 2013). Therefore to ensure improved performance of insurance companies in Kenya in this rapidly changing environment, industry players are embracing innovation. This is because innovation is widely recognized in literature as a critical enabler for firms to create value and sustain improved performance (Drucker, 2013). In order to be successful, insurers in Kenya must therefore continuously search for development of new ways of conducting business through innovation as a lever to sustainable performance.

1.1.1 Innovation

Innovation is defined as the process of the adoption of internally or externally generated devices, systems, policies, programs, processes, products, or services that are new to the adopting organization (Damanpour, 1991). At its core, the term innovation captures the newness of an idea that attempts to improve organizational performance (Camisón-Zornoza, Lapiedra-Alcamí, Segarra-Ciprés & Boronat-Navarro, 2004).

Inconsistencies in the definition of innovation have however been noted, and scholars have sought to clarify the confusion in literature between 'innovation' and 'invention'. Freeman's

(1982) study (as cited by Neely & Mii, 1998) noted that: "an *invention* is an idea, a sketch or model for a new or improved device, product, process or system" whereas "an *innovation* in the economic sense is accomplished only with the first *commercial* transaction involving the new product, process, system or device...", and acknowledged that an invention may not necessarily lead to an innovation.

This study adopts Damanpour and Gopalakrishnan's (2001) definition of innovation as "the adoption of an idea or behavior pertaining to a product, service, device, system, policy or programme that is new to the adopting organization. This definition captures a wide range of potential innovative activity including undertaking research and development, launching of new products or filing patents and maintaining a culture of creativity in organizations (Greve, 2003; Katlia & Ahuja, 2000; O'brien, 2003).

Literature further distinguishes different types of innovation. The Organization for Economic Co-operation and Development [OECD] Oslo Manual (2005) described different types of innovation as new products, new methods of production, new sources of supply, the exploitation of new markets, and new ways to organize business. Damanpour (1991) distinguishes between technical and administrative innovations. Whereas technical innovations include a new process and new products or services, administrative innovations refer to new procedures, policies and organizational forms. This study will focus on three types of innovation; product innovation, process innovation and market innovation as recognized in the OECD (Oslo Manual, 2005).

1.1.2 Organizational Performance

According to Daft (2000), firm performance is the organization's ability to attain its goals by using resources in an efficient and effective manner. It is determined by how well a firm manages its internal resources and adapts to its external environment and further reflects the accomplishment of its strategic objectives and growth goals (Hult, Hurley & Knight, 2004). It is thus related to the overall organizational achievements as a result of new and/or better efforts made to gain profit and growth.

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Performance measures are largely described as two dimensional (Agarwal, Erramilli & Dev, 2003). One dimension is the objective performance, which involves financial and market-based measures, such as capacity utilization, profitability and market share. The other is subjective (judgmental) performance which involves customer and employee based measures, such as

service quality, employee and customer satisfaction. Judgmental measures are important prerequisites for profitability and imply that for a company to achieve successful objective performance, careful attention must be paid to the service quality offered, as well as to both customer and employee satisfaction (Agarwal et al., 2003).

Various studies note that different criteria of performance have been used to measure firms' competitiveness, productivity and efficiency (Damanpour, 1990; Barney & Clark, 2007). Financial, marketing, production and innovative performance constitute quantitative firm performance measures. Frequently, financial measures such as Return on Sales (ROS), Return on Investments (ROI) and Return on Assets (ROA) are favored for performance evaluation (Griffin, 1997). Oke, Burke and Myers (2007) however assert that certain innovative managerial effort cannot be measured with such financial performance indicators.

According to Damanpour (1990), the strength of innovation and firm performance relationship depends on how performance is measured. Innovation and economics studies consider the number of patented or patentable innovations (new processes, products or technologies) as an important factor in order to compute the creativity and innovative performance of an organization (Hagedoorn & Cloodt, 2003). Griffin (1997) states that the most common measure of performance relating to innovation is the amount of sales (or sales turnover) generated from innovations or new products. Business measures such as return on assets (ROA) and return on equity (ROE) are largely ignored because of the difficulty in linking such with innovation activities.

This study will adopt an objective performance measure of sales turnover similar to previous studies by Griffin (1997); Aragón-Correa, García-Morales and Cordón-Pozo (2007) and Oke et al. (2007). The study will assess growth in sales turnover for the period between the financial years of 2013 and 2015 as within this period a nationwide campaign on the exploration of innovation as a tool for improving the performance of insurance industry in Kenya was initiated (AKI Report, 2014).

Several studies discuss the relationship between innovation and firm performance. Baker and Sinkula (2002); Kim and Mauborgne (2005); Salavou and Lioukas (2003); Oke et al. (2007) found a positive relationship between innovation and firm performance. Baker and Sinkula (2002) found that innovation helps companies deal with the turbulence of the external

environment and is therefore one of the key drivers of long term success in business, particularly in dynamic markets. However other studies challenge this view and give conditions under which innovation is successful. According to Danneels (2000) big organizations are more likely to have experience with innovation projects leading to organizational innovation capabilities. Smaller and especially new firms often lack this organizational capability and thus run the risk of engaging in managerial undertakings without experience.

Additionally, empirical studies on the innovation-performance relationship present mixed findings. According to Simpson, Siguaw and Enz (2006), innovation is an expensive and risky activity, with positive outcomes on firm performances but also with negative outcomes, such as increased exposure to market risk, increased costs, employee dissatisfaction or unwarranted changes. Similarly, Wright, Palmer and Perkins (2005), using a sample of small businesses, found that product innovation does not affect performance in benign environment, but has a positive effect on performance in hostile environment.

1.1.3 Insurance Sector in Kenya

Insurance refers to a promise of compensation in case of a potential loss, in return for a periodic payment. It is intended to offer a measure of financial protection and a means of risk management to individuals and businesses. The two distinct types of insurance are Non-life (general) insurance and Life insurance. Non-life insurance enables protection against risks that lead to loss or damage to property. Life insurance facilitates long-term savings that ensure that a decent amount is accumulated to meet policyholders' financial needs at various stages in life. Life insurance also acts as a long term investment tool whose main objective is to facilitate the growth of capital (AKI Report, 2014).

The insurance sector in Kenya comprises of 25 general insurers, 13 life insurers and 11 composite insurers. Other players include 198 licensed insurance brokers, 29 medical insurance providers (MIPs), 5,155 insurance agents, 133 investigators, 108 motor assessors, 25 loss adjusters and 24 insurance surveyors (AKI Report, 2014). There are two main associations - The Association of Kenya Insurers (AKI) and The Association of Insurance Brokers of Kenya (AIBK), while the regulating body of the industry is the Insurance Regulatory Authority (IRA) (AKI Report, 2014).

Competition in the insurance industry is currently high, with 49 insurers as at close of 2014 fighting for business that only constitutes 2.93% of market. Until recently, the insurance industry in Kenya operated in a stable environment. The products offered were standardized and competition was relatively low (Gitau, 2013). However, with the increase in the number of players in the industry, from 15 in 1978 to 39 in 2001 to 49 as at end of 2014, pressure has been exerted on insurers to formulate successful strategies that facilitate proactive response to these changes in the competitive environment. Insurers have thus turned their focus on innovation to enable them respond to, and compete effectively in the market.

Some insurance companies in Kenya have adopted several distinctive features to counter competition and elevate them among other industry players. The use of technology, especially the mobile phone to disseminate information and facilitate premium and claim payments is particularly rife. Other insurance companies have customized certain products and services to meet the individual needs of their clients, as well as being open to new channels of distribution of insurance like banc assurance that bring them closer to their target markets (AKI Report, 2014).

1.2 Problem Statement

The business environment in Kenya today is dynamic, turbulent and unpredictable. The success of any business in such an environment is dependent on its ability to respond to environmental change. In the last few years, the insurance industry in Kenya has undergone a series of changes through financial reforms, advancement of communication and information technologies, globalization of financial services and economic development (AKI Report, 2014). These changes have had a considerable effect on efficiency, productivity and market structure and have given rise to a highly competitive environment that now affects the performance of insurers. Innovation has been suggested as a strategic move that would change the way insurance companies do business by tapping into their creativity and improving their products, markets and processes (Gitau, 2013).

A number of studies have been conducted on the innovation-performance relationship, but mixed results have been presented. Many studies have found a positive relationship between innovation and performance (Jiménez-Jiménez & Sanz-Valle, 2011; Calantone, Cavusgil & Zhao, 2002; Damanpour, Walker & Avellaneda, 2009; Atalay, Anafarta & Sarvan, 2013). Other studies found

that the innovation-performance relationship is positive, but only in certain conditions. For instance, Danneels (2000) asserted that big organizations are more likely to have experience with innovation projects and thus better performance as opposed to small organizations. Further Mansury and Love (2008) found that the presence and extent of service innovation only have a positive effect on the growth of a firm but no effect on its productivity.

While assessing the innovation-performance relationship, different studies have used different measures to evaluate performance, a factor that has drawn mixed findings. Damanpour (1990) observed that the strength of innovation and firm performance relationship depends on how performance is measured. Generally, outcome level measures of innovation have been based on financial metrics (Avlonitis, Papastathopoulou & Gounari, 2001). However certain financial measures such as return on assets or return on equity have largely been ignored due to the difficulty in linking such measures with innovation activities (Oke et al., 2007). Perceptual, non-financial measures of performance based on first-mover or pioneering advantages have been used in several studies due to the difficulty in obtaining objective financial measures while other studies have employed subjective assessment for business performance and shown that this method can yield useful insights (Griffin, 1997).

Further, many of these studies have focused on manufacturing firms as opposed to service firms, and have analyzed only one type of innovation - product innovation (McDermott & Prajogo, 2012). This has given only a partial understanding of the subject of innovation and greatly contributed to the existing knowledge gap. Additionally, many research studies have concentrated on emerging enterprises while studying the innovation–performance relationship, and not on already established firms. This is due to the importance accorded to new and emerging enterprises because of their contribution to national economies and the attention given to the admirable culture of entrepreneurship by national governments (Wolff & Pett, 2006).

This study assessed the relationship between innovation and performance while concentrating on three types of innovations; product, process and market innovations. The study further focused on the insurance sector in Kenya as it is a highly competitive sector with both local and foreign market players and which recently acknowledged innovation as an enabler for insurers to create value and sustain improved performance (Kariuki, 2015).

1.3 Objective of the Study

The main objective of this study was to determine the influence of innovation on performance of insurance companies in Kenya.

1.3.1 Specific Objectives of the Study

The specific objectives of this study were:

- i. To identify the types of innovations predominant in insurance companies in Kenya.
- ii. To examine the extent to which product innovation influences performance of insurance companies in Kenya.
- iii. To establish the extent to which process innovation influences performance of insurance companies in Kenya.
- iv. To identify the extent to which market innovation influences performance of insurance companies in Kenya.

1.4 Research Questions

The research questions of this study were:

- i. What types of innovations are predominant in insurance companies in Kenya?
- ii. What is the extent to which product innovation influences performance of insurance companies in Kenya?
- iii. What is the extent to which process innovation influences performance of insurance companies in Kenya?
- iv. What is the extent to which market innovation influences performance of insurance companies in Kenya?

1.5 Scope of the Study

The scope of the study is the insurance sector in Kenya. As at December 2014, there were 25 general insurers, 13 life insurers and 11 composite insurers and a total of 49 companies.

1.6 Significance of the Study

This research will be beneficial to insurers in Kenya as it will bring out the value of innovation in the now highly competitive Kenyan insurance sector. It will assist these companies identify, analyze and adopt innovations that will steer them ahead of the competition and create value for all stakeholders. Further this study will be helpful to customers and the general public as it will help them acquaint themselves with the innovative developments in the insurance sector. This information will be useful to them as it will enable them gain a better understanding of the products and processes offered in insurance.

The Insurance Regulatory Authority (IRA) will obtain important insight into the various dimensions of innovation in insurance companies in Kenya and obtain guidance from this study in designing appropriate policies that will aim to foster growth and survival of the industry. Moreover the findings will be of help to future scholars and researchers as it will add to the existing body of knowledge in relation to innovations within the service industry, and particularly in the field of Insurance and also act as a spring board for further research in the same area and other related areas in the financial sector.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section covered the literature that was reviewed in relation to innovation and performance. The theoretical background was laid out together with the empirical review. It further brought out the existing knowledge gaps, outlined the conceptual framework of the study and detailed the operationalization of study variables.

2.2 Theoretical Background

This section covered the theoretical underpinning upon which this study is based with a focus on the blue ocean theory and resource based theory.

2.2.1 Blue Ocean Theory

The rapid pace of innovation and change in recent years has led scholars and executives to search for an approach that is more dynamic than Harvard Professor Michael Porter's classic "five forces." The Blue Ocean Theory, a concept outlined by Kim and Mauborgne (2005) argues that companies can succeed not by battling competitors, but rather by creating "blue oceans" of uncontested market space. The metaphor of 'Blue Oceans' describes the market universe and denotes all the industries not in existence today, the unknown market space, untainted by competition, where demand is created rather than fought over (Kim & Mauborgne, 2005). In blue oceans, competition is not relevant and there is ample opportunity for growth that is both rapid and profitable.

The key concept of Blue Ocean theory is Value Innovation - the simultaneous pursuit of differentiation and low cost, creating value for the buyer, the company, and its employees, thus opening up new and uncontested market space (Lilly & Juma, 2014). The aim of value innovation is not to compete, but to make the competition irrelevant by changing the playing field of strategy. Value innovation challenges Porter (1985) idea that successful businesses are either low-cost providers or niche-players. Instead, blue ocean strategy proposes finding value that crosses conventional market segmentation and offering value and lower cost. Blue ocean theory therefore derives its importance in emphasis on disregarding traditional rules and using competition as a benchmark (Kim and Mauborgne, 2005). It encourages organizations to tap into

their creativity through innovation to come up with product, process and market innovations that challenge the fundamental principle of conventional strategy, create new and uncontested market space and consequently improve their performance.

2.2.2 Resource-Based View

The Resource-Based View (RBV) of the firm is a dominant perspective of strategic management that seeks to find out why some firms consistently outperform others (Lilly & Juma, 2014). It focuses on costly-to-copy attributes of the firm as fundamental drivers of performance and competitive advantage (Barney, 1986). RBV theory is based on the idea that the effective and efficient application of all useful resources that a company possesses helps determine its competitive advantage, and by extension, its performance.

Prior to formulation of the resource based theory, the notion was that the relative position of a firm in a specific industry determined each firms profit potential (Barney, 1986). Later, researchers argued that the use certain internal factors, that is, an organization's resources and capabilities play a significant role in the maximization of a firm's performance. Resources are defined as the basic inputs into the production process, such as capital equipment and employee skill, whereas capabilities are defined as the capacity for a team of resources to perform some task or activity. Each organization has varying amounts of resources and capabilities, and the exploitation of these determines the performance of a firm (Lin, Peng & Kao, 2008). An organization's choice on use and leverage of its existing resources and capabilities determines the development of products, processes and market innovations that will give them advantage over existing competition and thus boost performance.

2.3 Empirical Review

This section covers existing literature on innovation with its varied types of product, process and market, and their relation to organizational performance. It presents arguments by different studies on innovation and performance.

2.3.1 Product Innovation and Organizational Performance

A product innovation is the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics (OECD Oslo Manual, 2005). Damanpour (1990) defines product

innovation as the introduction of a new or significantly improved product or service that advances the range and quality of the product that is offered currently.

Product innovation is considered an obvious means of generating revenue and thus improving performance. Camison and Lopez (2010) state that product innovation not only acts as a means of improving and safeguarding quality but also for cost saving. It is further lauded for retaining and growing the competitive position of a firm, as well as retaining a strong market presence. Products that are constantly improved are particularly important for long term business growth and performance (Bayus, Erickson & Jacobson, 2003). Product innovation is prevalent among new entrants in any industry as it has been used to boost their popularity in the market in a surprising short time (Hult et al., 2004). It is used as a business strategy for any business trying to acquire a larger market share too as product innovations are believed to attract diverse customers with varied needs (Oke et al., 2007).

Some enabling factors of product innovation have been identified in literature. Marketing orientation, defined as the firm's culture that creates the necessary behavior for the creation of superior value for buyers and continuous superior firm performance is said to positively affect innovation as it boosts innovation (Cano, Carrillat & Jaramillo, 2004). Market orientation also provides critical information to firms that cope with stiff international competition. It assures business executives that the strategies they put in place will maintain or even boost their rank among other insurance firms in terms of competition. Organizational culture, defined as beliefs, ideas or values that members of an organization share in common is also seen as an enabler of product innovation. An organization that grows and maintains a culture that sees the benefit of product innovation and encourages its stakeholders, mainly its employees to develop new products is more likely to succeed (Bakar & Ahmad, 2010).

Product innovation is however not always successful, with a main inhibitor to its success being regulation (Lado & Olivares, 2001). Regulations are set by governments to protect policyholders from illegal malpractices against them by insurance companies but on some instances these very regulations limit the range of potential products offered by the firms. Consumer distrust is noted in literature too as another inhibitor to product innovation (Bhalla, 2010). This restricts innovation in that, consumers need a lot of convincing whenever a new product is released to the market. They remain cautious of being swindled by insurance firms.

2.3.2 Process Innovation and Organizational Performance

A process innovation is the implementation of a new or significantly improved production or delivery method, including significant changes in techniques, equipment and/or software OECD (Oslo Manual, 2005). Process innovation is intended to decrease unit costs of production, to increase quality and to improve delivery of products and services (Oke et al., 2007). According to Hippel (2005) process innovation achieves quality function deployment and business processing reenginering. This type of innovation is sometimes considered complex and hard to comprehend but recent studies and exploration have made it easier to understand. When a mastery is grown over time on productivity gains, there is a high likelihood that products can be developed that offer the same performance at a lower cost. Such reduction in cost may be passed on to the customer which eventually will increase sales volumes and influence performance positively (Sinkula & Baker, 2005).

In the modern world of hyper competition, firms do not only focus on product innovation (Oke et al., 2007). They also explore process innovation to integrate improvements, service delivery as well as reduce cost to consumers (Danneels, 2000). Process innovation does not take place in a casual and offhand manner, but instead, includes the pressure of day to day business, vision creation, understanding the existing process and designing a new process. Equally, process innovation is a new approach of improving the organization's performance through incremental improvements rather than radical changes (Hippel, 2005). In most cases, the process innovation perspective embraces the top-down approach as well as the employee-based models. Top-down models have always been noted to be the mainstay of breakthrough innovation. Similarly, employee participation secures the employee commitment thereby, improving their performance (Rao, 2008).

At the same time, it is strategically important to point out that process innovation is an enabler of product innovation, that is, for secondary product innovation to be achieved, process innovation plays a very important role. Further according to Lager (2010), process innovation must occur within strategic context. The process innovation vision must be closely tied to the organizational goals and objectives. A tight connection between the organizational strategy and the process vision makes process innovation a primary vehicle for strategy implementation. Strategy implementation becomes an important source of competitive differentiation, hence, making

organizations that are successful at process innovation successful in the market (Danneels, 2000). Viewing the organization from a resource-based perspective, the organization's capability is seen as critically achieving the competitive strategy. Different literature further mentions process innovation as having a direct impact on three different dimensions of performance. These dimensions include financial performance, market performance and customer performance (Agarwal et al., 2003; Barney & Clark, 2007) thereby upholding it as a significant source of competitive advantage which results to improvement in performance (Hippel, 2005).

2.3.3 Market Innovation and Organizational Performance

Market innovation is defined in the OECD (Oslo Manual, 2005) as the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. Market innovations target at addressing customer needs better, opening up new markets, or newly positioning a firm's product on the market with the intention of increasing firm's sales (Gunday et al., 2011). Market innovations are strongly related to pricing strategies, product package design properties, product placement and promotion activities along the lines of four P's of marketing (Kotler, 1991).

Information technology is noted in literature as a key facilitator to the success of market innovation (Govindarajan & Ramamurti, 2011). In the recent years, new ways of gathering consumer information through market innovation have enabled firms to reach customers more effectively than before. The use of technology has led to the development of new ways to market, key among them the use of the internet in marketing. This has seen the rise of online shops, online advertisements and online arrangements for both product and service delivery (Rodriguez-Cano et al., 2004). Technology has led to a wider reach of customers, ensuring more sales while at the same time reducing the cost of doing business.

According to Johne (1999), market innovation deals with the market mix and market selection in order to meet a customer's buying preference. Continual market innovation needs to be done by a firm because state-of-the-art marketing tools, particularly through the internet, make it possible for firms to reach potential customers across the globe quickly. Rodriguez-Cano et al. (2004) assert that market innovation plays a crucial role in fulfilling market needs and responding to market opportunities. In this respect, any market innovation has to be directed at meeting customers' demand and satisfaction (Rosli & Sidek, 2013)

Despite its obvious importance to business, market innovation has received inadequate attention in literature. Few articles have been written concerning market innovation yet quite a number have been written on the attributes of market innovation, including pricing strategies, product package design properties, product placement and promotional activities (Cooper & Edgett, 2009). Superior pricing strategies and promotional activities are noted in literature as key factors that drive effective market dynamics, whereas product package design properties and product placement are regarded in literature as softer but important aspects to marketing. These attributes all affect firm performance positively (Rosli & Sidek 2013; Lin et al., 2008). Intense market innovation ensures survival of businesses in an environment of fast changing market and technological advances. Management of firms therefore needs to invest in market innovation to maintain a competitive advantage against other firms (Johne, 1999). Further, an effective market innovation not only enables a firm secure new business, but also safeguards their already existing business (Lado & Olivares, 2001).

Although there are efforts by firms to put marketing innovation to proper use, there are obstacles that prevent the proper success of the strategy. One of them is lack of financial and personnel resources, as executing market innovation requires intense resources (Lin et al., 2008). Further a lack of proper knowledge and experience with market innovation especially among the newer firms in an industry as well as uncertainty about their commitment to the entire process of market innovation has led to undesired results in the enactment of this strategy (Cooper & Edgett, 2009).

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2.4 Gaps in Research

Previous studies on the innovation-performance relationship have yielded mixed results. Scholars Fallah and Lechler (2008); Talke, Salomo and Kock (2011); Thornhill (2006); Matsuo (2006) found that innovation positively influences performance. Other studies Berggren and Nacher (2001) and Vermeulen, De Jong and O'shaughnessy (2005) found a negative relationship. Many other studies have come up with mixed results. Wright et al. (2004) stated that hostile environments provide better business performance for product innovations as opposed to benign environments. This study therefore firstly seeks to explore this phenomenon and establish if innovation leads to better firm performance, while focusing on three innovation types- product, process, and marketing as defined in the OECD Oslo Manual (2005) and add our voice to this developing subject.

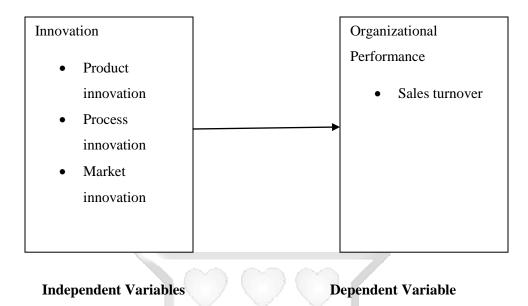
Secondly, a review of literature on innovation has focused on manufacturing firms (Gunday et al., 2011; Hassan, Shaukat, Nawaz & Naz, 2013; Jaw, Lo & Lin, 2010). This has been attributed to complexities experienced in studying service innovation as service outputs are considered unclear in nature making it difficult to identify and measure their improvement or change. Further Voss et al. (1992) as cited by McDermott and Prajogo (2012) stated that services are more immediately perishable, inseparable (production and consumption occur at the same time) and tend to be more heterogeneous than manufactured products. This study acknowledges this gap in literature and moves to dwell on innovations in the service sector, with bias to the insurance industry in Kenya, and seeks to establish the influence of innovation on performance.

Further innovation activities in emerging enterprises are of great interest to academics. Many studies conducted in the subject of innovation focus on these enterprises as opposed to established firms (Keskin, 2006; Wright et al., 2004; Keizer, Dijkstra & Halman, 2002; McDermott & Prajago, 2012) This is due to the level of importance given to new firms in the role they play in entrepreneurship. Wolff and Pett (2006) argued that emerging entrepreneurial firms are a key segment and driver for most national economies and many governments see these enterprises as the well-spring of economic growth and wealth creation.

2.5 Conceptual framework

The conceptual model in Figure 2.1 outlines the relationship between innovation and performance.

Fig 2.1: Conceptual framework



Source: Author (2015)

In this study performance was measured in terms of growth in sales turnover for the financial years of 2013 – 2015. This measure has been used previously by Oke et al. (2007) and Aragón-Correa et al. (2007). Innovation was assessed by examining its three different types; product, process and market innovations.

2.6 Operationalization of Variables

Operationalization facilitates reduction of abstract notions and constructs into observable characteristics so that they can be measured (Sekaran, 2005). A rating scale ranging from 1=strongly disagree to 5=strongly agree was used to measure the independent variables of product, process and market innovation. The study dependent variable of sales turnover was assessed by direct measure. The operationalization and measurement of study variables is summarized in Table 2.1.

 Table 2.1: Operationalization of Study Variables

Variables	Indicators	Rating	Supporting	Questionnaire
		Measures	Literature	item
Product innovation	New goods or services, significantly improved goods or services, regarding characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree	Gunday et al. (2011), Hassan et al. (2013), Atalay et al. (2013), OECD Manual (2005)	Section C, item 8
Process innovation	New or significantly improved production or delivery method, including significant changes in techniques, equipment and/or software	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree	Gunday et al. (2011), Hassan et al. (2013), Atalay et al. (2013), OECD Manual (2005)	Section C, item 9
Market innovation	New marketing methods, involving significant changes in product design or packaging, product placement, product promotion or pricing.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree	Gunday et al. (2011), Hassan et al. (2013), Atalay et al. (2013), OECD Manual, (2005)	Section C, item 10
Sales turnover	Total amount of revenue generated by a business during a 12 month calculation period	Direct measure	Griffin (1997), Oke et al. (2007), Aragón-Correa et al. (2007)	Section D, items 11

Source: Author (2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is a presentation of the road map that was followed in the quest to answer the research questions. The chapter outlined the research design, the population of the study and the data collection method. Additionally, it also covered the reliability and validity of the research instrument, data analysis and presentation as well as the ethical considerations that were taken into account by the study.

3.2 Research Design

Research design refers to the structure of an enquiry. It ensures that evidence collected enables one to answer questions as unambiguously a possible (De Vaus, 2001). This study adopted a descriptive cross-sectional survey design. Descriptive research design was chosen as it enabled the study to generalize the findings to a larger population. According to Sekaran (2005) descriptive studies portray an accurate profile of persons, events or situations, describing the existing conditions and attitudes through observation and interpretation techniques. The survey design enabled comprehensive analysis by respondents on the influence of innovation on performance of insurance companies in Kenya.

3.3 Population

A population refers to the combination of elements that have similar characteristics or behavior (Mugenda and Mugenda, 2003). The target population for this research was all 49 insurance companies operational in Kenya as at 31st December, 2014 (AKI Report, 2014).

3.4 Data Collection Methods

This study collected data by primary means through a structured questionnaire. The target respondents were the heads of business development, senior sales executives and functional heads for both underwriting and claims departments. The use of questionnaire was deemed appropriate for this study given that it had the advantages of a structured format and its ease and convenience to respondents (Sekaran, 2005). The questionnaire was administered through hard copy delivery by the researcher and where this was not possible, the questionnaire was sent via

electronic mail with the respondents being reminded to fill it with the highest level of accuracy possible.

3.5 Reliability Tests

Cronbach's alpha determines the internal consistency of items in a survey instrument to gauge its reliability. The Alpha can take values from zero (no internal consistency) to one (complete internal consistency). Cronbach's alpha coefficient of 0.70 and above indicates sound and reliable measures for further analysis (Hair, Anderson & Tatham, 1998; Gliem & Gliem, 2003). In this study, a lower limit of 0.60 was accepted as a sound and reliable measure. On the other hand individual items within the scale were re-examined if the scale showed poor reliability. All the values in this study produced scales that had consistent results should the research be repeated. Product, process and market innovations had alpha values of 0.834, 0.742 and 0.713 respectively. The results are presented in Table 3.1.

Table 3.1: Reliability Statistics

		Cronbach's alpha	Items
Product	13m 2)	0.834	6
Process		0.742	6
Market		0.713	6
Scale Combination	7 66	0.763	

Source: Survey data

3.6 Validity of the Study

Validity refers to how accurately the data obtained capture what they were designed and purported to measure (Mugenda, 2003). To ensure content validity, the questionnaire was subjected to a pilot test to check for any weaknesses in design and development. 7 individuals were selected and invited to take the survey as a pilot. They were asked for feedback on the questions and the time required for completion. Detailed feedback was received from 5 individuals. On the basis of these comments, the items were refined and the final questionnaire developed.

3.7 Data Analysis and Presentation

Data in this study was analyzed through quantitative means. The data analysis techniques used included means, standard deviations, percentages, correlation and multiple regression analysis. This data was used to make comparisons, examine relationships and explore the research questions of the study. The software that was used for quantitative data analysis was SPSS Version 22.

The study used the multiple regression model below to test the relationship between the dependent and independent variables:

$$Y = \alpha + \beta_1 X_{1+} \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y: organizational performance

 X_1 : product innovation

X₂: process innovation

X₃: market innovation

α: constant

β: coefficient of independent variables

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ε: error term

3.8 Ethical Consideration

The study was conducted ethically. The researcher liaised with the Human Resource functions of respective insurance companies to seek permission to conduct the survey in the respondents' premises. This allowed the facilitation of the data collection process based on clear rules, guidelines and ethical considerations of the organizations under study. With regards to ethical behavior, the participants (insurance firms) were allowed to freely choose to be part of the study or not. Further the respondents were reminded not to indicate their names or their organizations' to maintain anonymity. Moreover they were assured that any private information shared would be protected. The questionnaire was accompanied by an introductory letter from the University detailing the researcher's full name, institution of study and the purpose of the survey.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This study sought to determine the influence of innovation on performance of insurance companies in Kenya. This chapter presents the research findings. It is structured beginning with the response rate and results from demographic data collected. It further outlines the predominant types of innovation as well as results of the influence of product, process and market innovation on organizational performance. The chapter also covers inferential statistics used by the study.

4.2 Response Rate

A total of 31 completed and useable questionnaires out of 49 were obtained from respondents for the study. This represented a 63% response rate and a non-response rate of 37%. According to Mugenda and Mugenda (2003) a sample of 70% and above is rated as excellent, 60% and above rated as good while 50% and above is considered sufficient for doing analysis. This study considered the response rate of 63% adequate for analysis. The non-response rate was attributed to non-cooperation in some insurance companies in filling the questionnaire notwithstanding that it was accompanied by an official communication from the University on the purpose of the study. Table 4.1 shows the response rate.

Table 4.1: Response Rate

	Frequency	Percentage (%)
Responded	31	63
Did Not Respond	18	37
Total	49	100

Source: Survey data

4.3 Demographic Information

This section shows the ownership structure of the organization, the type of business conducted and classes of insurance written by various insurance companies.

4.3.1 Ownership Structure

The respondents were asked about the ownership structure of their respective organizations. The respondents indicated that 65% of insurance companies in Kenya are locally owned; 35% are owned by both locals and foreigners and no insurance company is foreign owned. The recent mergers and acquisitions witnessed in the insurance industry in 2014 and 2015 have seen the number of insurance companies in Kenya co-owned by both local and foreign entities increase. Table 4.2 outlines the ownership structure of insurance companies in Kenya.

Table 4.2: Ownership Structure

	Frequency	Percentage (%)
Local	20	65
Foreign	0 00 00 00	0
Local & Foreign	11	35
Total	31	100

Source: Survey data

4.3.2 Type of Insurance

The respondents were tasked to indicate the type of insurance their organizations operated. Their responses showed that 58% of insurers in Kenya carried out general (short-term) insurance, 26% ran life (long-term) insurance while 16% carried out composite (both life and general) insurance. The low focus on life insurance as compared to general insurance is due to the fact that many Kenyans now prefer alternative investment products in the market that they believe offer higher returns than those offered under life insurance. Table 4.3 displays the results.

Table 4.3: Type of Insurance

	Frequency	Percentage (%)
General (short-term)	18	58
Life (long-term)	8	26
Composite	5	16
Total	31	100

Source: Survey data

4.3.3 Classes of Business Offered

The respondents were required to specify the classes of business written in their respective organizations. The respondents indicated that Motor class was the most popular class of business (89%) followed by Personal Accident (82%) and Fire (78%). Ordinary Life Assurance and Group Life Assurance were at 64%. The respondents showed that among the least offered products included Micro-insurance (12%), Investment/Unit Linked Contracts (10%) and Aviation (7%). The responses are shown in Table 4.4.

Table 4.4: Classes of Business Offered

Class	Frequency	Percentage (%)
Motor	27	89
Personal Accident	25	82
Fire	24	78
Ordinary Life Assurance	19	64
Group Life Assurance	19	64
Work Injury Benefit (WIBA)	15	50
Medical	15	49
Deposit Administration/Pension	14	48
Theft	14	47
Engineering	13	43
Marine	111	- 38
Liability	OWNES TWY	7 SIN 24
Miscellaneous Accidents	4	15
Micro-insurance	3	12
Investment/Unit Linked Contracts	3	10
Aviation	2	7

Source: Survey data

4.4 Predominant Types of Innovation

The respondents were asked to indicate the types of innovation that are predominant in the insurance industry. They indicated that process innovation was the most predominant type (68%), followed by product innovation (22%) and market innovation (10%). The findings are displayed in Table 4.5.

Table 4.5: Predominant Types of Innovation

Type of Innovation	Frequency	Percentage (%)
Process	21	68
Product	7	22
Market	3	10
Total	31	100

Source: Survey data

4.5 Product Innovation and Organizational Performance

The respondents were tasked to rate the extent to which product innovation influences organizational performance. A scale of 1-5 was used where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree respectively. The results are presented in Table 4.6.

Table 4.6: Product Innovation and Organizational Performance

	Mean	Frequency	Percentage (%)
Innovative products have the ability to attract diverse consumers with varied needs	4.42	137	88.3
Insurance companies with innovative products have the ability to retain customer loyalty	4.42	137	88.3
Continuous cycles of product innovation give an organization competitive advantage	4.26	132	85.1
Additional features to a product improve the quality of the product	4.13	128	82.6
Successful product innovation is deterred by the rules and guidelines of the Insurance Regulatory Authority	4.06	126	81.3
Innovative insurance product in Kenya have high success chances regardless of the insurance firm that launches the product	4.00	124	80.0
Product innovation leads to long term business growth	3.90	121	78.1
Mean Score	4.17		

Source: Survey data

The survey established that insurance companies with innovative products have the ability to attract customers with varied needs as well as the ability to retain customer loyalty, which obtained a high mean of 4.42. Further it found out that continuous cycles of product innovation give an organization competitive advantage and that additional features to a product improve the quality of the product. This is in agreement with Camison and Lopez (2010) who noted that product innovation is lauded for retaining and growing the competitive position of a firm as well as as a means of improving and safeguarding quality. Additionally the study established that successful product innovation is deterred by the rules and regulations of the Insurance Regulatory Authority. This was also echoed by Lado and Olivares (2001) who found that product innovation is not always successful with a main inhibitor to its success being regulation. The survey respondents were neutral on whether product innovation leads to long term business growth and contradicted findings in literature that concluded that product innovation leads to long term business growth (Camison and Lopez, 2010; Wright et al., 2004). The mean score of 4.17 indicated a strong agreement that product innovation influences organizational performance.

4.6 Process Innovation and Organizational Performance

The respondents were asked the extent to which process innovation influences organizational performance. A scale of 1-5 was used where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree respectively. The results are summarized in Table 4.7.

Table 4.7: Process Innovation and Organizational Performance

VI. OROBE CALAIN S	Mean	Frequency	Percentage (%)
Innovative underwriting and claim processes ensure efficiency and improve performance	4.42	137	88.4
Ease of making insurance payments via the mobile phone has the effect of increasing market share	4.39	136	87.7
Service delivery innovations increase our sales turnover	4.35	135	87.1
Process innovation has the ability to cut down on operational costs	4.32	134	86.5
Process innovation achieves business process re-engineering	4.29	133	85.8
The provision of policy documents with clear terms and conditions creates preference for an organization	3.94	122	78.7
Mean Score	4.29		

Source: Survey data

The survey found out that innovative underwriting and claim processes ensure efficiency and improve organizational performance ranked highly with a mean of 4.42. Rated highly too with mean of 4.38 by respondents was that innovative solutions such as ease of making insurance payments via the mobile phone has the effect of increasing market share. The survey further established that service delivery innovations increase sales turnover and supported the findings that innovations in service delivery play an integral role in improving the performance of a business (Baker & Sinkula, 2005; Danneels, 2000). The study also revealed that process innovation has the ability to cut down on operational costs and achieve business process reengineering and corroborated the findings by Hippel (2005). However respondents were neutral that the provision of policy documents with clear terms and conditions creates preference for an organization. The mean score was 4.29 and depicted high levels of agreement that process innovation influences organizational performance.

4.7 Market Innovation and Organizational Performance

The respondents were required to rate the extent to which market innovation influences organizational performance. A scale of 1-5 was used where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree respectively. The results are illustrated in Table 4.8.

Table 4.8: Market Innovation and Organizational Performance

VI OMNES WAVE S	Mean	Frequency	Percentage (%)
Development of multiple distribution channels for insurance is considered a smart way of doing business	4.23	131	84.5
An organization that invests in market innovation will have increased market share	4.06	126	81.3
Information technology has facilitated the development of effective ways to market	4.00	124	80.0
Products marketed with highlights on their core features have the ability to win consumers	3.94	122	78.7
A poorly marketed innovative product will not yield success	3.74	116	74.8
The setting up of branches in different regions ensures that the reach of insurance is wide	3.68	114	73.5
Mean Score	3.94		

Source: Survey data

The survey revealed that development of multiple distribution channels for insurance is considered a smart way of doing businessand was rated highly with a mean of 4.12. Moreover, the study found out that an organization that invests in market innovation will have increased market share and supported findings in literature that an effective market innovation not only enables a firm secure new business, but also safeguards their already existing business (Lado & Olivares, 2001). The study revealed that information technology has facilitated the development of effective ways to marketand has consequently led to successful market innovation (Govindarajan & Ramamurti, 2011; Rodriguez-Cano et al., 2004). However the respondents were neutral that products marketed with highlights on their core features have the ability to win consumers and that a well marketed innovative product will yield success. The study further established respondents were neutral on whether setting up of branches in different regions ensures that the reach of the insurance is wide. The mean score was at 3.97 indicating neutral agreement that market innovation influences organizational performance.

4.8 Summary of Mean Scores

Of the three types of innovation surveyed, process innovation had the highest mean of 4.28 indicating strong agreement level, followed by product innovation with a mean of 4.15 and lastly by market innovation with a mean of 3.92 showing neutral agreement. The summary of mean scores is presented in Table 4.9.

Table 4.9: Summary of Mean Scores

	Mean
Process	4.29
Product	4.17
Market	3.94

Source: Survey data

4.9 Organizational Performance

The respondents were further asked to provide objective and factual information about the gross written premiums for their organizations for each of the 2015, 2014 and 2013 financial years.

The study took into account the effect of the inflation rate and determined the net performance figures for these years. In order to ascertain how well each organization surveyed had performed over the three year period, the 2013 net figure was subtracted from the 2015 net figure. The results are displayed in Table 4.10.

Table 4.10: Sales Turnover - Gross Written Premiums (2013 – 2015)

Sales Turnover ('000)								
	2015	2014	2013					
1	2,187,483	3,282,348	2,541,719					
2	4,013,694	3,951,752	3,418,660					
3	11,564,789	10,942,498	8,553,211					
4	1,649,856	1,152,708	1,155,002					
5	10,631,546	9,200,880	7,064,535					
6	448,956	570,624	540,614					
7	3,957,841	3,657,162	3,015,548					
8	996,532	870,469	771,014					
9	17,632,512	16,021,325	10,834,307					
10	2,947,893	3,766,001	3,438,808					
11	2,698,741	2,027,605	1,683,137					
12	506,116	668,659	575,272					
13	486,152	460,573	443,048					
14	3,145,268	2,491,239	1,602,970					
15	431,251	608,474	472,098					
16	620,567	606,838	425,378					
17	7,902,365	7,600,587	7,161,061					
18	1,896,541	1,656,142	1,128,845					
19	1,748,952	1,305,664	853,282					
20	1,005,214	918,830	816,962					
21	1,156,932	1,278,960	1,437,506					
22	5,102,478	5,246,528	5,324,099					
23	945,786	814,003	744,403					
24	413,201	369,140	166,709					
25	1,895,261	1,787,448	1,403,753					
26	1,654,782	1,482,803	1,204,681					
27	20,456	21,366	14,778					
28	931,465	915,702	772,969					
29	186,254	153,355	124,529					
30	836,251	841,632	783,598					
31	1,542,341	1,384,413	1,142,789					

Source: Survey data

Table 4.11: Growth in Gross Written Annual Premium (2013 - 2015)

	No. of Organizations (N)	Percentage (%)
Positive	24	77
Negative	7	23
Total	31	100

Source: Survey data

The results showed that between 2013 and 2015, out of the 31 organizations surveyed, 24 (77%) recorded positive growth in sales turnover while 7 companies (23%) registered a fall in sales.

4.10 Inferential Statistics

This section displays inferential statistics used in the study to make comparisons, examine relationships and explore the research questions of the study. The software that was used for quantitative data analysis was SPSS Version 22.

4.10.1 Correlation Analysis

The distribution of the correlation variables was tested with the range between -1 to ± 1 to ± 1 indicates perfect negative correlation while ± 1 indicates a perfect positive correlation. On the other hand, 0 is an indication of no correlation at all. The correlation matrix is used to determine the extent to which changes in the value of one attribute is associated with changes in another attribute. The correlation analysis is displayed in Table 4.12.

Table 4.12: Correlation Matrix

		Corre	elations			
			Organizational	Product	Process	Market
			performance	innovation	innovation	innovation
Spearman's rho	Organizational performance	Correlation Coefficient	1.000	.564**	.584**	.399*
		Sig. (2-tailed)		.001	.001	.026
		N	31	31	31	31
	Product innovation	Correlation Coefficient	.564**	1.000	.399*	.351
		Sig. (2-tailed)	.001		.026	.053
		N	31	31	31	31
	Process innovation	Correlation Coefficient	.584**	.399*	1.000	.536**
		Sig. (2-tailed)	.001	.026		.002
		N	31	31	31	31
	Market innovation	Correlation Coefficient	.399*	.351	.536**	1.000
		Sig. (2-tailed)	.026	.053	.002	
		N	31	31	31	31
** Correlation is	significant at the 0.0	1 level (2-tailed)	3mx 2)	l		
	significant at the 0.05		S. E. E.			

Source: Survey data

As per the correlation matrix, all the independent variables associated positively with organizational performance (the dependent variable) at varying degrees. Organizational performance and product innovation had a positive correlation coefficient value of 0.564 at 0.01 level of significance with a p value of 0.01; organizational performance and process innovation had a positive correlation coefficient value of 0.584 at 0.01 level of significance with a p value of 0.001 and organizational performance and market innovation had a positive correlation coefficient value of 0.399 at 0.05 level of significance with a p value of 0.026. Of the three independent variables, albeit to a moderate extent, process innovation correlated strongest with organizational performance while market innovation correlated weakest to organizational performance.

4.10.2 Regression Analysis

The regression analysis showed the relationship between the dependent and independent variables of the study and determined the influence of product innovation, process innovation and market innovation on organizational performance.

The regression equation was:

 $Y = \beta_0 + \beta_1$ product innovation + β_2 process innovation + β_3 market innovation + ϵ

Where:

Y is the dependent variable

 β_0 is the regression constant,

 β_1 , β_2 , β_3 are regression coefficients

 ε is the regression model error term.

The regression results for the model are summarized below:

Table 4.13: Model Summary

Model Summary

				Std. Error of the
Model	R	R Square	Adjusted R Square	Estimate
1	.536ª	.292	.218	3.03098E6

a. Predictors: (Constant), Market innovation, Product innovation, Process innovation

R², (coefficient of determination) is a number that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable. An R square value of .292 signified that the independent variables in the model offered 29.2% explanation of the variance in the dependent variable (performance). The R square value of .292 indicated that 70.8% variance in the performance of insurance companies in Kenya is explained by other factors not considered in the study.

Table 4.14: ANOVA Results

ANOVA^b

Mo	odel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.861E13	3	3.328E13	3.623	.026ª
	Residual	2.450E14	27	9.187E12		
	Total	3.478E14	30		i.	l:

a. Predictors: (Constant), Market innovation, Product innovation, Process innovation

b. Dependent Variable: Organizational performance

The Analysis of Variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures such as variation between and among groups. In this study, ANOVA results indicated that the overall model is significant; as at 5% level of significance, the F calculated was greater than the F critical of 3.623. Further, the p value of 0.026 which is less than 0.05 confirmed that the overall model is significant.

Table 4.15: Regression Coefficients

Coefficients^a

				Standardized Coefficients		
Model	I	В	Std. Error	Beta	t	Sig.
1	(Constant)	1226032.962	1343437.962		1.132	.268
	Product innovation	57271.822	48606.961	.057	2.463	.021
	Process innovation	91651.229	58115.467	.543	2.485	.042
	Market innovation	20108.084	71876.809	.417	.196	.845

a. Dependent Variable: organizational performance

Source: Survey data

The model showed a statistically significant positive relationship between product innovation (β =57271.822, t=2.423, p<0.05) and performance, a statistically significant positive relationship between process innovation (β =91651.229, t=2.485, p<0.05) and performance and an

insignificant positive relationship between market innovation (β =20108.084, t=0.196, p>0.05) and performance.

Further the model gave a positive coefficient for each independent variable, indicating that the three independent variables of product, process and market innovation positively influence organizational performance. That is, a unit increase of the independent variables leads to an increase in the dependent variable.

From the regression model, the following regression equation was derived:

$$Y = 1226032.962 + 57271.822X_1 + 91651.229X_2 + 20108.084X_3$$

The regression results indicated that process innovation had the greatest beta coefficient of 91651.229, followed by product innovation with a beta coefficient of 57271.822 and market innovation with a beta coefficient of 20108.084. When product innovation, process innovation and market innovation have null value, sales turnover would be Kshs. 1,226,032,962. A unit increase in product innovation would yield a Kshs. 57,271,822 increase in sales turnover; a unit increase in process innovation would yield a Kshs. 91,651,229 increase in sales turnover while a unit increase in market innovation would yield a Kshs. 20,108,084 increase in sales turnover.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to determine the influence of innovation on the performance of insurance companies in Kenya. This chapter presents a discussion of the major findings of the study, the conclusion and recommendations. It also highlights the limitations of the study and outlines proposed areas of further study.

5.2 Discussion of Findings

This section presents a summary of findings as per the specific objectives of the study. The specific objectives of the study were to identify the predominant types of innovation, to establish the extent to which product innovation influences performance, to examine the extent to which process innovation influences performance and to determine the extent to which market innovation influences performance of insurance companies in Kenya.

5.2.1 Predominant Types of Innovation

The survey established that out of the three types of innovation studied, that is, product, process and market, process innovation was the most predominant in the insurance industry in Kenya. Process innovation was further found to be predominant across both non-life (general) and life segments of the insurance sector in Kenya. Process innovations common in both life and non-life segments included the use of technology such as the mobile phone to transfer payments and disseminate information, the use of online portals for quicker interaction with insurers and use of database management systems that encourage efficient collection, use and storage of data and information. Process innovations were found to promote efficiency of the daily operations of insurers thereby supporting previous results in literature (Hassan et al., 2013; Atalay et al., 2013). Product innovation was found to be relatively dominant, with product innovations noted in the motor, personal accident, medical and micro insurance classes in general insurance; and ordinary life assurance and investment/unit-linked contracts classes in life insurance.

5.2.2 Extent to which Product Innovation Influences Performance of Insurance Companies in Kenya

The study revealed that product innovation influences organizational performance and showed a significant positive relationship between the two variables (β =57271.822, t=2.423, p<0.05). It also showed a positive moderate correlation (coefficient value of 0.564; 0.01 level of significance; p value of 0.01) between product innovation and organizational performance. This result supports previous studies in literature that asserted that product innovation influences business performance. Camison and Lopez (2010) noted that product innovation not only acts as a means of improving and safeguarding quality but also for cost saving. He further showed that product innovation contributed to retaining and growing the competitive position of a firm as well as retaining a strong market presence. This study further established that product innovations attract diverse customers with varied needs as observed by Oke et al. (2007). Interestingly, this survey further found out that there is agreement among market players that successful product innovation is deterred by the rules and guidelines of the Insurance Regulatory Authority and corroborated the findings of Lado and Olivares (2001) that a main inhibitor to the success of product innovation is regulation. Moreover an important outcome of this study revealed that product innovation does not lead to long term business growth and contradicted the general finding of previous studies (Bayus et al., 2003; Wright et al., 2005; Gunday et al., 2011; Hassan et al., 2013; Wolff and Pett, 2006) that the introduction of new product innovations is positively associated with better organizational performance and consequently growth of firms. This is a critical result as it will challenge market players within the insurance sector to find out what other means can be explored to enhance growth of firms.

5.2.3 Extent to which Process Innovation Influences Performance of Insurance Companies in Kenya

The survey established that process innovation significantly influences organizational performance (β =91651.229, t=2.485, p<0.05) and a moderate correlation (coefficient value of 0.584, 0.01 level of significance, p value of 0.001) between these two variables was found. Among the three types of innovation studied, process innovation interrelated strongest with performance as was similarly found by Hassan et al. (2013). This may be explained by the fact that the insurance industry is a service industry, and thus their processes form an integral part of service delivery. Efficient and effective processes, for instance, the quick settlement of claim

payments and underwriting premium as well as commission payments for intermediaries are regarded highly by stakeholders within the industry. This therefore significantly affects the performance of an insurance company. Further the study revealed that ease of making insurance payments via the mobile phone has the effect of increasing market share indicating that technological advancements incorporated into the processes of a firm play an important role in improving firm performance. Moreover the study established that service delivery innovations increase sales turnover and process innovations cut down on operational costs thereby supporting assertions by Danneels (2000) and Baker and Sinkula (2005). The study found neutral agreement that the provision of policy documents with clear terms and conditions creates preference for an organization indicating that the recent initiative to re-word policy documents and make them more user-friendly is deemed to have had little effect on the efforts to improve performance by insurance companies in Kenya.

5.2.4 Extent to which Market Innovation Influences Performance of Insurance Companies in Kenya

The study showed an insignificant positive relationship between market innovation (β=20108.084, t=0.196, p>0.05) and organizational performance. Among the three types of innovation studied, market innovation presented the weakest correlation to organizational performance (coefficient value of 0.399, 0.05 level of significance, p value 0.026). Similar results were arrived at by Atalay et al. (2013). This was a surprising result, as marketing efforts have largely been viewed by scholars as a means to promote awareness of insurance products, build on consumer knowledge and alleviate the negative perception held by the general public of insurers in Kenya. This in turn is expected to increase penetration of insurance and consequently lead to improved performance of insurance companies in Kenya (Gitau, 2013). This result further contradicted a general finding in literature that market innovation influences organizational performance (Govindarajan & Ramamurti, 2011; Rodriguez-Cano et al., 2004; Lado & Olivares, 2001).

5.3 Conclusion

The main objective of the study was to determine the influence of innovation on performance of insurance companies in Kenya. A major result of the study was that among the three types of innovation studied, only product and process innovation positively and significantly influence

performance of insurance companies in Kenya. The results revealed that product innovation positively and significantly influences organizational performance (β =57271.822, t=2.423, p<0.05) and process innovation positively and significantly influences organizational performance (β =91651.229, t=2.485, p<0.05). Market innovation was found to have an insignificant effect on organizational performance (β =20108.084, t=0.196, p>0.05).

The study further established that process innovation is the most predominant type of innovation (mean score of 4.29), indicating that management of insurance companies in Kenya is keen on improving business processes in order to boost performance. Further the survey revealed that of the three types of innovation studied, process innovation strongly influenced performance of insurance companies. This implies that continued investment in process innovations would help promote performance of insurers. The study also revealed that there is agreement in the insurance sector that successful product innovation is deterred by the rules and guidelines of the Insurance Regulatory Authority, with a high mean score of 4.06.

5.4 Recommendations

Management of insurance companies should put greater emphasis on process innovation to improve performance. Processes in these organizations should be refined to ensure that they are efficient and effective as this serves to increase market share and to reduce on operational cost. Moreover explorations in technology should continue in the industry as a whole as these also play a significant role in ensuring that efficiencies and effectiveness of business processes are achieved.

The regulatory body in the insurance sector should encourage product innovation within the industry. It should exercise due diligence in its mandate to protect consumers, but at the same time ensure that its policies do not stifle the growth and creativity of insurers. The regulatory body should strive to create a favourable environment for innovation.

5.5 Limitations of the Study

This study has provided further insight into the influence of innovation on performance of insurance companies in Kenya, albeit with limitations. First the study used a cross-sectional research design where the respondents were assessed once on their perspectives of the variables under study. The use of cross-sectional data prevented close investigation of several aspects of the relationships in the study. Second, data for this study was collected via key-informant approach and this limited the ability to access diverse information. Third, the survey adopted

only one objective performance measure of sales turnover and thereby did not show how the variables under study would relate when other different measures of performance are used.

5.6 Areas of Further Research

This study sought to determine the influence of innovation on performance of insurance companies in Kenya. The study used a cross-sectional research design where the respondents were assessed once on their perspectives of the variables under study. Although cross-sectional data enabled generalizations of the findings, it prevented close investigation of several aspects of the relationships in the study. The development of a time-series database and testing in a longitudinal framework should provide more insight into the relationship among variables. Future research should explore a longitudinal research design to provide an assessment of the influence of innovation on performance over time. Second, data for this study was collected using a key-informant approach which limited the ability to access information. The responses were based on self-reported data comprising of the perceptions of the respondent. The findings of a survey based on other diverse sources of information would provide additional findings. Third, performance is a multidimensional construct and can be measured in different ways. This study adopted an objective measure of performance of sales turnover. According to Damanpour (1990), the strength of innovation and firm performance relationship depends on how performance is measured. It would be informative to see how the variables under study relate when other measures of performance, both objective and subjective, are assessed. Fourth, the study of innovation on performance was only tested in the insurance industry in Kenya, and thus generalizability of findings is limited. Future studies could expand the focus to a wider array of companies within the service sector to establish firmer results on the relationship of the variables under study.

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APPENDICES

Appendix I: Letter of Introduction

Strathmore University
School of Management and Commerce
P.O Box 59857 - 00200
Nairobi

Dear Respondent,

RE: RESEARCH WORK

I am a postgraduate student pursuing a Master of Commerce degree at Strathmore University, undertaking a study on "Influence of Innovation on Performance of Insurance Companies in Kenya".

Your organization has been identified for this study and I therefore wish to request your participation in this research. Any information you provide towards this study will be treated with utmost confidentiality and will only be used for academic research purpose.

Thank you for your support.

Yours faithfully,

Kiragu Rachael Wangu

Appendix II: Questionnaire

This questionnaire seeks information on the influence of innovation on the performance of insurance companies in Kenya. Kindly read and understand the question before answering so as to ensure you answer is comprehensive and accurately recorded. For confidentiality purposes do not indicate your name or that of your organization.

SECTION A: DEMOGRAPHIC INFORMATION

1.	Ownership structure of your o	rganization		
	Local [] Foreig	gn []	Local &Foreign	[]
2.	Type of insurance that you ope	erate		
	General Insurance []		Life Insurance	[]
	Composite []	000	000/	
3.	Classes of business offered(mu	ıltiple choices ar	e allowed)	
	Motor []		Medical Insurance	[]
	Fire []		Liability	[]
	Work Injury Benefit (WIBA)		Aviation	[]
	Personal Accident	[]	Engineering	[]
	Marine	[]	Miscellaneous Accidents	[]
	Theft		Micro-insurance	[]
	Deposit Administration/Pension	on []	Group Life Assurance	[]
	Investment/Unit Linked Contr	acts []	Ordinary Life Assurance	[]
	SECTION E	3: PREDOMIN	ANT INNOVATIONS	
4.	What are the predominan	t (major) types	s of innovation in the	insurance industry?

5.	Of the predominant (major) types of innovation in the insurance industry you have stated above briefly describe how they influence the performance of organizations.							
				. 				
				· • • • • •				
				••••				
6.	To what extent has the Kenyan insurance industry adopted an innovative cu	ıltur	e in y	your	opin	ion?		
	Great Extent [] Moderate Extent [] L	ow I	Exte	nt	[]]		
7.	Explain your answer							
	(\$\frac{1}{2}(\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}\$}}}}}\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}}}}}\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\te							
	SECTION C: INNOVATION AND ORGANIZATIONAL PER	FO	RM.	ANC	Œ			
8.	Please indicate with a tick the extent to which you agree with the	fol	lowi	ng s	stater	nent		
	concerning product innovation and organizational performance.							
	(1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree)							
		1	2	3	4	5		
i	Innovative products have the ability of attract diverse consumers with varied needs							
ii	Insurance companies with innovative products have the ability to retain							
	customer loyalty							
iii	Continuous cycles of product innovations gives an organization							
iv	competitive advantage Innovative insurance products have high success chances regardless of							
1,	the insurance firm that launches the product							
V	Additional features to a product improve the quality of the product							
vi	Successful product innovation is deterred by the rules and guidelines of							
	the Insurance Regulatory Authority			<u> </u>				
vii	Product innovation leads to long term business growth							

9. Please indicate with a tick the extent to which you agree with the following statements concerning process innovation and organizational performance.

(1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree)

		1	2	3	4	5
i.	Ease of making insurance payments via the mobile phone has the effect					
	of increasing market share					
ii.	Service delivery innovations increase our sales turnover					
iii.	Innovative underwriting and claim processes ensure efficiency and					
	improve performance					
iv.	The provision of policy documents with clear terms and conditions					
	creates preference for an organization					
v.	Process innovation achieves business process re-engineering					
vi.	Process innovation has the ability to cut down on operational costs					

10. Please indicate with a tick the extent to which you agree with the following statements concerning market innovation and organizational performance.

(1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-stronglyagree)

		1	2	3	4	5
i.	A poorly marketed innovative product will not yield success					
ii.	An organization that invests in market innovation will have increased					
	market share					
iii.	The setting up of branches in different regions ensures that the reach of					
	insurance is wide					
iv.	Information technology has facilitated the development of effective					
	ways to market					
V.	Products marketed with highlights on their core features have the ability					
	to win consumers					
vi.	Development of multiple distribution channels for insurance is					
	considered a smart way of doing business					

SECTION D: ORGANIZATIONAL PERFORMANCE

11. Please indicate the gross written annual premium for your organization over the last 3 years:

2015: Kshs. _____

2014: Kshs. _____

2013: Kshs. _____

Thank you.



Appendix III: Names and Addresses of Insurance Companies in Kenya as at $31^{\rm st}$ December 2014

No	Company Name	Address
1	1 AAR Insurance Company Ltd	Williamson House, 4th Ngong Avenue, P.O. Box 41766-00100, Nairobi
2	Africa Merchant Assurance Ltd	2nd Floor, Trans-National Plaza, Mama Ngina Street, P.O. Box 61599-00100, Nairobi
3	AIG Kenya Insurance Company Ltd	AIG House, Eden Square Complex, Chiromo road, P.O. Box 49460-00100, Nairobi
4	APA Insurance Company Ltd	Apollo Centre, Ring Road, P.O. Box 30065-00100, Nairobi
5	APA Life Assurance Ltd	Apollo Center, Ring Road, P.O. Box 30389-00100, Nairobi
6	Britam	Britam Centre, Mara/Ragati Road, P.O. Box 30375-00100, Nairobi
7	Britam General Insurance	Britam Centre, Mara/Ragati Road, P.O. Box 30375-00100, Nairobi
8	Cannon Assurance Ltd	Gateway Business Park, Mombasa Road, P.O. Box 30216-00100, Nairobi
9	Capex Life Assurance Company Ltd	5th Avenue Office Suites, Ngong Road, P.O. Box 12043-00400, Nairobi
10	CIC General Insurance Company Ltd	CIC Plaza, Mara Road, P.O. Box 59485-00200, Nairobi
11	CIC Life Assurance Company Ltd	CIC Plaza, Mara Road, P.O. Box 59485-00100, Nairobi
12	Corporate Insurance Company Ltd	Corporate Place, Kiambere Road, P.O. Box 34172-00100, Nairobi
13	Directline Assurance Company Ltd	17th Floor, Hazina Towers, Monrovia Street, P.O. Box 40863-00100, Nairobi
14	Fidelity Shield Insurance Company Ltd	Equatorial Fidelity centre, Waridi line, P.O. Box 47435-00100, Nairobi
15	First Assurance Company Ltd	First Assurance House, Gitanga Road, P.O. Box 30064-00100, Nairobi
16	GA Insurance Company Ltd	GA Insurance House, Ralph Bunche Road, P.O. Box 42166-00100, Nairobi
17	Gateway Insurance Company Ltd	Gateway House, Gateway Place, Milimani Road, P.O. Box 60656-00200, Nairobi
18	Geminia Insurance Company Ltd	Geminia Insurance Plaza, Kilimanjaro Avenue, P.O. Box 61316-00200, Nairobi
19	Heritage Insurance Company Ltd	Liberty House, Mamlaka Road, P.O. Box

		30390-00100, Nairobi
20	ICEA LION General Insurance Co Ltd	ICEA LION Centre, Riverside Park, Chiromo Road, Westlands, P.O. Box 30190-00100, Nairobi
21	ICEA LION Life Assurance Co Ltd	ICEA LION Centre, Riverside Park, Chiromo Road, Westlands, P.O. Box 30190-00100, Nairobi
22	Intra Africa Assurance Company Ltd	Williamson House, 4th Ngong Avenue, P.O. Box 43241-00100, Nairobi
23	Invesco Assurance Company Ltd	Bishop Magua Center, 3rd Floor, George Padmore Lane, off Ngong Road, P.O. Box 52964-00200, Nairobi
24	Jubilee Insurance Company Ltd	Jubilee Insurance House, Mama Ngina Street, P.O. Box 30376-00100, Nairobi
25	Kenindia Assurance Company Ltd	Kenindia House, Loita Street, P.O. Box 44372-00100, Nairobi
26	Kenya Orient Insurance Company Ltd	Capitol Hill Towers, Cathedral Road, P.O. Box 34530-00100, Nairobi
27	Kenyan Alliance Insurance Company Ltd	Chester House, Koinange Street, P.O. Box 30170-00100, Nairobi
28	Liberty Life Assurance Ltd	Liberty House, Mamlaka Road, P.O. Box 30364-00100, Nairobi
29	Madison Insurance Company Ltd	Madison Insurance House, Upper Hill Road, P.O. Box 47382-00100, Nairobi
30	Mayfair Insurance Company Ltd	Mayfair Centre, Ralph Bunche Road, P.O. Box 45161-00100, Nairobi
31	Mercantile Insurance Company Ltd	16th Floor, Ecobank Towers, Muindi Mbingu Steet, Nairobi
32	Metropolitan Cannon Life Assurance Company Ltd	International Life House, Mama Ngina, P.O. Box 46783-00100, Nairobi
33	Monarch Insurance Company Ltd	Monarch House, 664 Olenguruone Avenue, P.O. Box 44003-00100, Nairobi
34	Occidental Insurance Company Ltd	Crescent Business Centre, 7th Floor, Parklands Road, P.O. Box 39459-00623, Nairobi
35	Old Mutual Life Assurance Company Ltd	Old Mutual Building, Corner of Mara/Hospital Road, P.O. Box 30059- 00100, Nairobi
36	Pacis Insurance Company Ltd	Centernary House, 2nd Floor, Off Ring Road, Westlands, P.O. Box 1870-00200, Nairobi
37	Pan Africa Life Assurance Ltd	Pan Africa House, Kenyatta Avenue, P.O. Box 44041-00100, Nairobi

38	Phoenix of E. A. Assurance Company Ltd	Ambank House, 17th Floor, University			
	1 110 2 111 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Way, P.O. Box 30129-00100, Nairobi			
39	Pioneer Life Assurance Company Ltd	Pioneer House, Moi Avenue, P.O. Box			
	Troncor Ene rissurance Company Edu	20333 -00200, Nairobi			
40	Prudential Assurance Company Ltd	5th Avenue Office Suites, Ngong Road			
		25093-00100, Nairobi			
41	Real Insurance Company Ltd	Royal Ngao House, Hospital Road, P.O.			
	real insurance company 210	Box 40001-00100, Nairobi			
	Resolution Insurance Company	Parkfield Place, Muthangari Drive, Off			
42		Waiyaki Way, Westlands, P.O. Box			
		4469–00100, Nairobi			
43	Saham Assurance Company Ltd	Ecobank Towers, Muindi Mbingu Street,			
		P.O. Box 20680-00200, Nairobi			
44	Takaful Insurance of Africa Ltd	CIC Plaza, Mara Road, P.O. Box 1181-			
1	Takarar insurance of Africa Dia	00100, Nairobi			
45	Tausi Assurance Company Ltd	Tausi Court, Tausi Road, Off Muthithi			
		Rd, 28889-00100, Nairobi			
46	Trident Insurance Company	Capitol Hill Towers, Cathedral Road, P.O.			
		Box 55651-00200, Nairobi			
47	UAP Insurance Company Ltd	Bishops Garden Towers, Bishops Road,			
''		P.O. Box 43013-00100, Nairobi			
48	UAP Life Assurance Company Ltd	Bishops Garden Towers, Bishops Road,			
70		43013-00100, Nairobi			
49	Xplico Insurance Company Ltd	Park Place 5th Floor, Limuru Road P.O.			
		Box 38106-00623, Nairobi			

Source: AKI Report (2014)