THE EFFECT OF FINANCIAL INNOVATION ON FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN KENYA

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DECLARATION

This research project is my own original work and has not been submitted for any award in any university.

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DEDICACTION

This research study is dedicated to my late dad J.S Mbogoh for his mentorship on the value of education and instilling the virtue of accountability in me. And to my dear mom J.G.Mbogoh, for her patience and understanding when I had limited time for her through the time of my studies.

ABSTRACT

Many firms especially in the insurance industry make use of financial innovation strategies to keep pace with changing environments. This study, involved determining the causal effect of financial innovation (the independent variable) to financial performance (dependent variable) of insurance companies in Kenya, financial performance was measured by Return on Assets.

For this study the 45 insurance companies and 2 Re-insurance Companies operating in Kenya as at 31st December 2012 were used. Data was drawn from a period of five (5) years that is 2008-2012. The primary data was collected through questionnaires and where appropriate the secondary data was obtained from published information. The data was analyzed using descriptive and inferential statistics to generate descriptive, regression of coefficients as well as to determine the fitness of the model.

Results indicate that the relationship between new products and financial performance is insignificant. Results reveal that operation processes and system innovations are statistically significant in explaining return on assets of insurance companies. One of the recommendation by the study is that the Government should be on the forefront to encourage on innovative ideas and also come up with structures to assist the sector in coming up with sustainable innovations through the various regulatory bodies. Some of the Impact of the study results will be Kenya insurance companies enhancing their operation processes and system innovation as they show a statistical significant.

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ABREVIATIONS

AKI	Association of Kenya Insurers
ARM	Adjustable Rates Mortgage
CBK	Central Bank of Kenya
GDP	Gross Domestic Product
IIK	Insurance Institute of Kenya
IRA	Insurance Regulatory Authority
IT	Information Technology
Kshs	Kenya Shillings
NIF_s	Note Issuance Facilities
NSE	Nairobi Stock Exchange
OECD	Organization for Economic Cooperation and Development
PAYD	Pay As You Drive
R& D	Research & Development
ROA	Return on Assets
ROII	Return on Innovation Investment
SPSS	Statistical Package for Social sciences
USD	United States Dollar

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

A Firms' financial performance is of great importance for any organization. For this reason most companies are always reviewing their strategies on how they offer their products or services in order to keep up with demand and the competitive environment. Many firms especially in the insurance industry make use of financial innovation strategies to keep pace with changing environments.

The term innovation generally means a new way of doing something. It can be an idea, practice or object that is perceived as new by a unit of adoption (Rogers, 2003). This definition covers the diffusion of innovations as well as their initial creation and application. Innovation is usually understood to be distinct from invention. While invention is the first occurrence of an idea for a new product or process, innovation is the first attempt to carry it through into practice (Schumpeter, 1934).With the need to grow and meet unmet markets, most insurance companies in Kenya are constantly reviewing their financial innovation strategies to keep at pace.

Ross (1989) invokes agency issues to explain some financial innovations. He notes that agency considerations make borrowing costly or limited and, as a result, individuals contract with opaque financial institutions. When a shock such as a change in taxes or

regulation occurs, financial intermediaries may find it efficient to sell off low-grade assets. Because outside investors cannot easily assess the value of these assets, the institutions turn to investment banks to place these securities with their network of clients. These investment banks innovate, creating new pools of these low grade assets. Agency considerations interact with marketing costs to produce innovation.

1.1.1 Financial Innovation

According to Tufano (2002) financial innovation is the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions and markets. The innovations are sometimes divided into product or process variants, with product innovations exemplified by new derivative contracts, new corporate securities, or new forms of pooled investment products, and process improvements typified by new means of distributing securities, processing transactions, or pricing transactions. Frame & White (2009-10), defines financial innovation as something new that reduces costs, reduces risks, or provides an improved product/service/instrument that better satisfies financial system participants' demands. Drucker (1985) defined innovation as the process of equipping in new, improved capabilities or increased utility.

According to Finnerty (1992) and Merton (1992) financial innovation occurs to serve the functions of reallocating risk by coming up with many products and services that are less risky, increasing liquidity by attracting more deposits, reducing agency costs, reducing taxes or circumventing regulatory constraints. Buchenau (2003) has a narrower

characterization of innovations focusing on innovations in financial services. He categorizes two types of innovations in financial services: - completely new products which match the characteristics of intended users, and Improvements or refinements in the procedures used to deliver the services, or to design contracts and to achieve their enforcement.

Agosin (1999) citing work by McGuire and Conroy, distinguishes three levels of financial innovation: - System innovation where new institutions tailored to deal with unmet needs are created or allowed to emerge, Process innovation, the creation of new technologies for providing financial services, and Product innovation, the supply of new financial products. An important distinction made by Agosin is that governments must concentrate on the first type of innovation because of the likelihood that the private sector will under-produce these innovations. Systemic innovation may arise but this may take time; the process may be lengthy and tedious, hence, there is a role for government to foster it.

1.1.2 Financial Performance

Performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage (Iswatia & Anshoria, 2007). There are two kinds of performance, financial performance and non financial performance. Financial performance emphasizes on variables related directly to financial report. Company's performance is evaluated in three dimensions. The first

dimension is company's productivity, or processing inputs into outputs efficiently. The second is profitability dimension, or the level of which company's earnings are bigger than its costs. The third dimension is market premium, or the level of which company's market value is exceeding its book value (Walker, 2001)

Financial performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. The goal of such analysis is to determine the efficiency and performance of firm's management, as reflected in the financial records and reports (Amalendu, Mukhuti, and Roy, 2011).According to Simmons (2000) business performance measurement is a tool to balance five major tensions within a firm: - Balancing profit, growth and control, Balancing short term results against long-term capabilities and growth opportunities, Balancing performance expectations of different constituencies, Balancing opportunities and attention, Balancing the motives of human behavior

1.1.3 Financial Innovation and Financial Performance

Global competition which became particularly tough after 80's, forced the companies focus on their business strategies, especially on innovations (Kuratko and Hodgetts, 1998). At the present time, due to the tough global competition, both individuals and companies begin to evaluate and to apply their innovation strategies and entrepreneurial abilities with the purpose of gaining competitive advantage (Drucker, 1985). Ebrahim and Hussain (2010) identify financial innovation as one key of financial development

transmission channels. However, despite the fact that financial innovation is charged in the recent crisis, it still needed nevertheless through products which allow some insurance against the risk like credit default swap.

Mishra (2008a) financial innovation enables the integration of capital markets across borders making it easier for savings arising in developed economies to be used to finance higher yielding investment opportunities in economies with higher growth potential. This promotes economic growth by improving the efficiency of investment and by strengthening the discipline on governments and central banks to pursue sound policies. Schumpeter (1912) highlighted the crucial role of financial intermediaries in innovation and economic development. At the micro-economic level, the development of new financial instrument improves the capacity of financial intermediaries and end users of financial markets to manage risks. Better management of risk, in turn leads to the improved allocation of resources, in particular capital (Mishra, 2008b).

At the Macro-economic level, financial innovation enlarges the menu/list of assets available to savers and borrowers. By designing savings vehicles/ instruments in more attractive way and extending the reach of financial intermediation, saving is encouraged and the utility of a given volume of savings to the holders of financial assets is enhanced. Similarly on the borrowing side, the introduction of the new borrowing instruments facilitates capital formation and perhaps even more important, helps improve its quality. If Secure and liquid financial assets are readily available, yielding competitive real rates

of interest, savings are less likely to be retained by firms for low productivity investments, or diverted into inflation hedges (Mishra, 2008a).

According to Walker (2004), Innovation has a considerable impact on corporate performance by producing an improved market position that conveys competitive advantage and superior performance. Metcalfe (1998) stated that when the flow of newness and innovations desiccates, firms' economic structure settles down in an inactive state with little growth. Therefore, innovation plays a significant role in creating the differences of performance and competition among firms, regions and even countries. For instance, the study by Fagerberg et al. (2004) revealed that innovative countries had higher productivity and income than the less innovative ones.

OECD reports pointed out that companies that developed innovations in a more decisive way and rapidly, had also more qualified workers, paid higher salaries and provided more conclusive future plans for their employees. In fact, the effects of innovations on firm performance differ in a wide spectrum from sales, market share and profitability to productivity and efficiency (OECD Oslo Manual, 2005).

1.1.4 The Insurance Industry in Kenya

The Insurance industry is represented by a trade body known as Association of Kenya Insurance (AKI).The industry is overseen by a regulator known as Insurance Regulatory Authority (IRA). Insurance Institute of Kenya (IIK) enhances and monitors technical and professional capability in the industry. As of July 2012, the market comprised of 45

insurance companies and 2 Re- Insurance Companies, transacting long-term and short-term insurance business. The insurance industry recorded gross written premium of Kshs. 91.60 billion, the global economy continued to recover from the 2008/09 recession, the first global downturn since 1946 (AKI Report, 2011).

The introduction of new products in the market and the significant improvement in service delivery platforms being experienced in the insurance industry will no doubt propel the insurance industry to a higher level of growth. This is underpinned by the huge potential of untapped insurance market in the country coupled by the ongoing efforts by the Government in strengthening the regulatory environment of the financial services sector, which include the review of the Insurance Act and the importance placed on insurance services under Vision 2030.

Some of the new ventures in the last few years include introduction of Agriculture and Livestock insurance, Micro insurance and Takaful. A number of hitherto composite companies have successfully demerged into Life and Non Life Insurance companies. This has certainly enabled the management of these respective companies to focus a lot more on the respective line of business unlike in the past when managements found themselves torn between growing Life or Non Life insurance business. The new entities will also contribute to job creation for a number of Kenyans.

Other new products in the market are Political Violence & Terrorism cover which saw its way after the 2007/2008 political violence. The Pay As you Drive (PAYD) offered by the

Gateway insurance, Mbao pensions to target the lower market. The insurance industry, however, continues to face a number of challenges. Competition for business continues to be a very big challenge. In view of the very low levels of product innovation, differentiation remains quite low. This has over the years lead to massive price cutting, a phenomenon that has had a major impact on growth and profitability.

1.2 Research Problem

Due to the changing times and of course apparent competitive markets, most insurance companies in Kenya have found themselves changing the game plan. Initially a number of insurance companies in Kenya especially those offering medical products did not cover certain illness and age groups but with time this are changing and insurance companies now use a different approach. For instance use of innovative methods to reach to the untapped market groups as a way to increase their financial performance and market share. According to Miller (2001) most firms seek technological innovation to gain competitive advantage in their market. Hence, all these efforts made require to be supported by marketing and organizational measures.

Financial innovation is considered as developments and new applications; with the purpose of launching newness into the economic area. Innovation has great commercial importance due to its potential for increasing the efficiency and the profitability of companies. Actually, the key reason for innovativeness is the desire of firms to obtain increased business performance and increased competitive edge. As defined by Frame &

White (2009-10), financial innovation is something new that reduces costs, reduces risks, or provides an improved product/service/instrument that better satisfies financial system participants' demands.

The insurance industry in Kenya has grown tremendously in the past years with new entrants in the market as well as a number of companies coming up with new products or improved services to meet new markets, also insurance companies having joint products with other financial institutions for efficiency and competitive demand for instance the PAYE (Pay as You Drive) product offered by Gateway insurance or the Mbao pension product offered to reach the persons in the informal industry. Hence this study intended to find out if such financial innovation strategies undertaken by the insurance companies in Kenya had an effect to company financial performance.

Innovation has generated a wide interest as a research subject in social sciences with a particular focus on the relationship between innovation and competitive advantage. In a highly turbulent environment, a successful innovation creating a unique competitive position can give the company a competitive advantage and lead to a superior performance (Roberts and Amit, 2003). This can only be maintained by ceaseless innovation and improvement of the product and the process (Porter, 2004).

Though there are other previous studies under financial innovation for instance, Mwangi (2007) carried out a study on factors influencing financial innovation of companies listed at the Nairobi Stock Exchange. Omwenga (2010) carried a study on the relationship

between financial innovation and financial performance of commercial banks in Kenya. Kinuthia (2010) carried a study on an analysis of financial innovations in the Kenyan banking sector. Githakwa (2011) carried a study on the relationship between financial innovation and profitability of commercial banks in Kenya.

Karanja (2011) carried out a study on the relationship between financial innovation and growth of insurance companies in Kenya. The objective of the study was to evaluate the relationship between financial innovation and growth of the insurance companies in Kenya. The population for the study was the 44 registered insurance companies as at December 2009.The study was conducted using questionnaires targeting underwriting managers. This study concentrated on assessing the effects of financial innovation on the financial performance by taking Return on Assets as a measure of financial performance. The study was intended to fill in the gap by answering the question, does financial innovation have any effects on financial performance of insurance companies in Kenya?

1.3 Research Objective

The objective was to establish the effects of financial innovation on the financial performance of insurance companies in Kenya.

1.4 Value of the Study

Executives in the Insurance Industry will use the findings of this study in drafting informed innovative strategies and understand the gaps which come along with financial innovations.

Investors in the Industry will use the information from this study to make informed decisions regarding investing on financial innovation. Also will expose some of the challenges they are likely to encounter in their attempt to penetrate the industry.

Scholars in the field of financial markets & institutions focused on financial innovation will benefit from the information as it will contribute to the existing knowledge as well as illustrate the gaps that come along with the study of financial innovation, therefore opening more areas for future studies in the field of Financial Innovations and financial performance.

The Government will find the information useful in diagnosing the problems affecting successful implementation of financial innovation. Also can use the data to assist the sector in coming up with sustainable innovation, through the various regulatory bodies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature and empirical information from topics related to this study. It will provide a summary of the literature review, the various theories of financial innovation and some concept on financial performance.

2.2 Theoretical Framework of Financial Innovation

Profit-seeking enterprises and individuals are constantly seeking new and improved products, processes, and organizational structures that will reduce their costs of production, better satisfy customer demands, and yield greater profits. The following financial innovation theories give an elaborate discussion on this literature.

2.2.1 Silber's Constraint Theory of Innovation

Silber (1975) attributes financial innovations to attempts by profit maximizing firms to reduce the impact of various types of constraints that reduces profitability. The theory points out that the purpose of profit maximization of financial institutions is the key reason of financial innovation. Silber notes that there are some restrictions (including external handicaps and internal handicaps such as organizational management) in the process of pursuing profit maximization. Although these restrictions not only guarantee

the stability of management they reduce the efficiency of financial institutions so the institutions strive to cast them off.

Research literature has shown that firms that are less profitable in their respective sector are disproportionately innovative. Moreover, their decrease in profitability, which can be attributed to external competition or government regulation, has provided these firms with necessary motivation to innovate in a bid to increase profitability. This finding is consistent with the suggestion in the work of Silber that innovation is a rational response to an unfavourable competitive position (Silber, 1975, 1983).

2.2.2 Scylla's Regulation Innovation Theory

Regulation innovation theory was put forward by Scylla etc. in 1982. They argued researching financial innovation from the perspective of economy development history. And they thought financial innovation connects with social regulation closely, and it is a regulation transformation which has mutual influence and is mutual causality with economic regulation.

Scylla et al. (1982) thought that it is very difficult to have space of financial innovation in the planned economy with strict control and in the pure free-market economy, so any change leaded by regulation reform in financial system can be regarded as financial innovation. The Omni-directional finance innovative activities can only appear in the market economy controlled by government. When government's intervention and the management have hindered the finance activities, there will be many kinds of financial

innovation which intend to circumvent or get rid of government controls. The game between the market and government finally form the spiral development process, namely, "control-innovate controls again-innovates again".

In this theory which expanded the scope of financial innovation, government activity is also regards as the origin of financial innovation. But it regards regulation innovation as one part of financial innovation. Especially, it regards rules and regulations which are used to control as financial innovation. Therefore, it is difficult for us to accept this theory. The financial control is the obstructive force of financial innovation, so rules and regulations which are regarded as the symbol of financial control should be the direction of financial reform and innovation.

2.2.3 Silber's Advanced Constraint-Induced Financial Innovation Theory

American economist, Silber (1983) pointed out that the purpose of profit maximization of financial institution is the key reason of financial innovation. There are some restrictions (including external handicaps such as policy and internal handicaps such as organizational management) in the process of pursuing profit maximization. Though these restrictions not only guarantee the stability of management, they reduce the efficiency of financial institution, so financial institutions strive toward casting them off.

Constraint-induced innovation theory discussed the financial innovation from microeconomics, so it is originated and representative. But it emphasized "innovation in adversity" excessively. So it can't express the phenomenon of financial innovation increasing in the trend of liberal finance commendably.

2.2.4 The Transaction Cost Innovation Theory by Hicks and Niehans

The transaction cost innovation theory's main pioneers are Hicks and Niehans (1983). They thought that the dominant factor of financial innovation is the reduction of transaction cost, and in fact, financial innovation is the response of the advance in technology which caused the transaction cost to reduce. The reduction of transaction cost can stimulate financial innovation and improvement financial service. This theory studied the financial innovation from the perspective of microscopic economic structure change. It thought that the motive of financial innovation is to reduce the transaction cost. And the theory explained from another perspective that the radical motive of financial innovation is the financial institutes' purpose of earning benefits.

2.2.5 Regulation and Taxation a Theory of Innovation by Miller

Miller (1986) stated that major innovations in the last 20 years have been almost exclusively the results of changes in tax laws and regulation changes. The author attributed the development of many financial claims to attempts to alter the amount and timing of taxable income. Miller also notes that financial innovations are as a result of

regulatory barriers and desire of financial firms to avoid the impact of regulatory constraints.

Adjustable rates mortgage (ARMS) is an example of innovations that are consistent with this theory. The tax reform Act of 1986 which ended federal income tax deductions for non-mortgage consumer debt, spurred substantial growth in home equity lending. The theory is further supported by one of the Modigliani-Miller preposition that states that taxes and regulations are only reasons for investors to care what securities firms issue whether debt, equity or any other security.

2.2.6 Merton's Market Efficiency Theory of Innovation

Merton (1990) also provides a valuable rationale for financial innovation. His theory is based on the notion that financial innovations are motivated by forces designed to increase market efficiency and improve social welfare. Merton argued that the market is not perfect hence institutions must innovate to improve market efficiency. He gives three motivations for producing innovations namely: the creation of new financial structures that allow risk sharing, risk pooling and hedging as well as new financial structures for transferring resources, the improvement of economic efficiency and liquidity and reduction of agency costs.

2.3 Forms of Financial Innovation

One standard and useful distinction between different types of innovation is that between product and process innovation.

Product innovation is the introduction of a new good or service, or one that is substantially improved. This includes, but is not limited to, improvements in functional characteristics, technical abilities, or ease of use. It is not supposed to include minor customisation and superficial/aesthetic design characteristics, though there have been some calls for such activities to be included, perhaps as “soft” innovations. Successful product innovation is vital to many firms. The commercial success of a new product typically depends on how well the product's design meets customers' needs (Rothwell et al., 1974).

Process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in the techniques, equipment and/or software used to make or deliver the product. Process innovations can be intended to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products (OECD, 2005). Process innovation covers the introduction of new business processes leading to increased efficiency, market expansion, etc. Examples include office automation and use of computers with accounting and client data management software. (Schrieder and Heidhues 1995)

Financial system/institutional innovations. Relate to changes in business structures, to the establishment of new types of financial intermediaries, or to changes in the legal and supervisory framework. Important examples include the use of the group mechanism to retail financial services, formalizing informal finance systems, reducing the access barriers for women, or setting up a completely new service structure. (Schrieder and Heidhues 1995)

2.4 Functions of Financial Innovation

Merton (1992) and Crane et al. (1995), identify six functions that innovations and more generally economies perform as: Moving funds across time and space (e.g., savings accounts); The pooling of funds (e.g., mutual funds); Managing risk (e.g., insurance and many derivatives products); Extracting information to support decision-making (e.g., markets which provide price information, such as extracting default probabilities from bonds or credit default swaps); Addressing moral hazard and asymmetric information problems (e.g., contracting by venture capital firms); and Facilitating the sale or purchase of goods and services through a payment system (e.g., cash, debit cards, credit cards).

2.5 Importance of Financial Innovation

Von (1991) spells out the importance of innovations in financial markets: they create additional value because of the reduction in transaction costs of access to financial services. This directly benefits clients, especially the small-scale clients who have been

excluded from the traditional, mainstream financial system for a number of reasons. According to OECD (2003) Innovation, enterprise and intellectual assets drive economic growth and increase standards of living. Innovation is instrumental in creating new jobs, providing higher incomes, offering investment opportunities, solving social problems, curing disease, safeguarding the environment and protecting our security. To help achieve these objectives, governments must create appropriate incentives for continued growth in innovation and technology development and embrace sound policies for assuring broad social diffusion and access to key scientific and technological advances.

2.6 Concept of Financial Performance

The determination of a firm's financial performance involves the analysis of financial statements. According to Noveu (1981), this type of analysis allows managers, investors, creditors, as well as potential investors and creditors, to reach conclusions about the recent and current financial status of a firm. Ratio analysis is a popular tool used by the various users of accounting information to establish the ability of the firm to service its debt and earn profits for owners. Management may use the analysis as a planning device, tool for control or means to identify weaknesses in the firm. The ratios can be classified into five groups. Liquidity ratios seek to determine if a firm can meet its current obligations as they become due. Activity ratios tell how rapidly assets flow through the firm. Profitability ratios measures performance while leverage ratios measure the extent to which the firm uses debt financing.

Brignall (2007) traditionally, companies and analysts focus on the use of performance measures because they play critical role not only in evaluating the current performance of a firm but also in achieving high performance and growth in the future. Investors measure overall company performance in order to be able to make right investment decisions. The financial performance measures have a variety of users but especially they assumed to be of primary interest of shareholders as they entrust their money to companies' managers who are responsible for the application of capital but may have no incentives to increase shareholders' value. For example, agency theory argues that unless managers are monitored constantly they act in self-interest, which might be at variance with interests of shareholders. But this variance can be reduced through the added costs of monitoring or designing appropriate incentive structures. In order to achieve goal congruence, managers' compensation is often linked with the performance of the responsibility centers and also with overall company performance

2.7 Empirical Evidence

Tufano (1989) examined a cross-section of new securities to examine whether financial product innovators enjoy first mover advantages. Specifically, he used a sample of 58 innovations (representing 1,944 public offerings) to test whether investment banks that create new securities benefit by charging higher prices (underwriting spreads) than imitators or by capturing larger quantities. Tufano found that, over the 1974-1986 periods, investment banks that created new products did not charge higher prices in the period before imitative products appear and in the long run charge lower prices than

rivals. However, these innovators underwrote more public offerings of products that they innovated, than did imitating rivals. Overall, Tufano's results are not consistent with monopoly pricing of new securities issues by innovators, but rather with the presence of cost advantages that allow these institutions to capture market share.

Molyneux and Shamroukh (1996) examined the diffusion of the underwriting of junk bonds and of note issuance facilities (NIFs) during the 1978-1988 and 1983-1986 periods, respectively. The authors find that exogenous factors, such as regulatory or demand changes, played a significant role in the diffusion of junk bond underwriting. Conversely, the diffusion of NIFs underwriting appeared to be motivated by bandwagon effects. Molyneux and Shamroukh argue that banks (commercial and investment) are more likely to respond to competitive and institutional bandwagon pressures by adopting an innovation when it threatens an existing business, rather than when it represents new business opportunities. However, for both underwriting innovations, the authors find that adoption by one bank makes it more desirable for other banks to follow suit – and this effect increases in the number of adopters.

McAdam and Keogh (2004) investigated the relationship between firms' performance and its familiarity with innovation and research. They found out that the firms' inclination to innovations was of vital importance in the competitive environments in order to obtain higher competitive advantage. Geroski (1995) examined the effects of the major innovations and patents to various corporate performance measures such as

accounting profitability, stock market rates of return and corporate growth. The observed direct effects of innovations on firm performance are relatively small, and the benefits from innovations are more likely indirect. However, innovative firms seem to be less susceptible to cyclical sectoral and environmental pressures than non-innovative firms.

Walker (2004) conducted comparative research for the effects of product and process innovations on firm performance. They indicated that particular product improvements are positively associated with firm growth. Gopalakrishnan (2000) broadened the topic while emphasizing that innovation speed and innovation magnitude were also relevant innovativeness features both of which had a positive effect on firm performance.

Mwangi (2007) carried out a study on factors influencing financial innovation of companies listed in the Nairobi Stock Exchange. The objective of the study being the macro and micro environmental factors influencing financial innovation in Kenya's security market. The population used in the study was of 48 listed companies in the NSE as of 2005.A survey was conducted between September 2005 and March 2006 and out of the 48 organizations 31 responded, the overall response rate being 64.6%.The primary data was collected using semi-structured questionnaire based on a six point likert scale. The targeted respondents were chief finance officers of quoted companies and senior managers. Findings of the study indicate that quite a number of macro environment and micro environment factors were important in influencing financial innovation. In his

conclusion he also indicated that regulatory authorities should enhance domestic capital market capacity to incorporate new financial instruments

Githakwa (2011) carried out a study on the relationship between financial innovation and profitability of commercial banks in Kenya. The objective of the study was to establish the relationship between financial innovation and profitability of commercial banks in Kenya and population for the study was all the 44 registered commercial banks in Kenya. The study was conducted using questionnaires and secondary data obtained from commercial banks website, publications and CBK. Statistics were collected from 40 commercial banks which answered the questionnaires. He concluded that Kenya commercial banks conceptualize financial innovation as means to create impact in the profit performance. That implementation of financial performance makes commercial banks to save great resources and reduce costs of operations, reduce cost per transaction in banks operations and enable commercial banks to satisfy their customers.

Karanja (2011) carried out a study on the relationship between financial innovation and growth of insurance companies in Kenya. The objective of the study was to evaluate the relationship between financial innovation and growth of the insurance companies in Kenya. The population for the study was the 44 registered insurance companies as at December 2009.The study was conducted using questionnaires targeting underwriting managers. He concluded that there is need for proactive approach in innovations on new products to enhance growth, information systems were found to contribute to growth of

the insurance companies, operation system have no relationship with premium growth and that many insurance companies who are affiliated to other financial institutions did it to boost sales and the partnership contributed to growth in insurance companies.

2.8 Summary of Literature Review

With the changing world and competitive demands in the financial institutions. The financial institutions including the insurance industry have adopted various financial innovation options to achieve their goals. According to Tufano (2002), the list of common motivations for financial innovations includes the following: Innovation exists to complete inherently incomplete markets (*i.e.* unmet needs or preferences of clients); Innovation exists to address inherent agency concerns and information asymmetries; Innovation enables parties to minimise search, transactions, or marketing costs; Innovation is a response to taxes and regulation (*e.g.* decoupling economic ownership or exposure from legal ownership – governance and tax implications); Innovation is a response to globalisation and increasing risks; and Innovation is the result of technological shocks.

The literature review shows that different researchers have different views on the effects of financial innovations. Given that there has been a lot of growth in the insurance industry in Kenya. This research established whether there is a relationship between financial innovation and firms' financial performance of insurance companies in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology, the research design, population of the study, the sample size and sample design, the data collection methods and data analysis techniques.

3.2 Research Design

Hopkins (2000) suggests that descriptive studies is part of a quantitative research design, whose aim is to determine the relationship between an independent variable and another dependent or outcome variable in a population, establishing the associations between variables and the causality. For this study, the design involved determining the causal effect of financial innovation (the independent variable) to financial performance (dependent variable) of insurance companies in Kenya from the period 2008 to 2012.

3.3 Population of Study and Sample Design

According to Cooper and Schindler (2008), population is referred to as the collection of elements about which we wish to reference. The population of study was the 45 insurance companies and 2 Re-insurance companies operating in Kenya as at 31st December 2012 (see appendix I). For this study the 45 insurance companies and 2 Re-insurance

companies (census) was used. Data was drawn from a period of five (5) years that is 2008-2012.

3.4 Data Collection

The study used primary data and secondary data where appropriate. For primary data structured questionnaire was used to collect data. Respondents were presented with descriptive statements where they were required to answer as per statement. The questionnaire was divided into two parts focusing on general features and specific questions on financial innovation strategies, its benefits also the link to financial performance of the insurance company. The questionnaire was self administered through drop and pick method to reduce interviewer bias, this was sent to I.T or Marketing & Finance managers in each insurance company under study in order to achieve the objective desired. Secondary data which was the quantative data and was obtained from published information from the NSE and other available published information from AKI reports.

3.4.1 Data Validity and Reliability

Pre-testing enables the researcher to access the clarity of the instrument and its ease to use, Mugenda and Mugenda (2003) highlights the benefit of pre-testing of instrument as that of allowing errors to be discovered as well as a tool for training a research team before the actual data collection begins. To ensure that the data collected was valid and reliable a pretest was done before administering questionnaire to determine duration

spent filling in questionnaire, flow and format of questions, clarity of questions, level of difficulty, and respondent interest and attention. It was ensured the senior personnel to whom the questionnaire was directed to understand the questions, and that the responses given answered questions asked and were consistent across the population of study.

3.5 Data Analysis

The process of data analysis involved data clean up and explanation. The data will be then coded and checked for any errors and omissions (Mugenda & Mugenda, 1992). The primary data obtained from the questionnaires was summarized and analysed by use of descriptive and inferential statistical techniques. Further quantative data was fed in the computer and analysed using Statistical Package for Social sciences (SPSS).In order to determine and test the correlation between the dependent variable and each independent variable, Pearson correlation coefficient was calculated.

Analytical Model

Multiple linear regression model was used to analyze the relationship between financial innovation and firms' financial performance in a general form of equation as follows:-

$$\mathbf{Y= \beta_O +\beta_1 X_1+\beta_2 X_2 +\beta_3 X_3 ..... +E}$$

Where, Y the dependent variable (financial performance), was determined for each individual insurance company in study by measuring the following ratio for the five years under study:-

Return on Assets (ROA) = Net income X100

Total Assets

Hence the multiple linear regression model of the relation between ROA and financial innovation was summarized as follows:

$ROA_{it} = \beta_O + \beta_1 NONP_{it} + \beta_2 NONPC_{it} + \beta_3 NOS_{it} + \beta_4 NSI_{it} + E$

Where:

ROAit: Return on Assets of insurance company i at time t (i= 1, 2, 3…..45 insurance companies in study), dependent variable measuring financial performance.

T: Time (1, 2…..5 years)

β_O: Constant, intercept of the equation.

$\beta_{1...4}$: Coefficients of the independent variables

NONPit: Number of new products /services for insurance company i at time t.

NONPCit: Number of operation process innovation for insurance company i at time t.

NOSit: Number of systems innovations for insurance company i at time t.

NSIit: Number of successful new product/services, operation process and system innovations company i at time t.

E: Error term of equation.

The statistical significance will be evaluated at 0.05 level. Regression coefficients with associated probability values (p values of less than 0.05) led to the conclusion that financial innovations have a relationship with financial performance. P values higher than 0.05 led to conclusion that financial innovation have no relationship with financial performance.

CHAPTER FOUR

DATA ANALYSIS,RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis and results of the study. In regard to this study descriptive statistics were used to present the results followed by tables. The interpretation and discussion of the data analysis is in the form of frequencies and descriptive statistics. The data is analyzed and presented based on the objectives of the study.

4.2 Background Information

The researcher targeted the 45 insurance companies and 2 Re-insurance companies registered in Kenya as at 31st December 2012.The researcher managed to administer questionnaires to all the Insurance companies under study, but only 36 returned filled questionnaires. This translates into 76.6% return rate which is satisfactory according to Babbie (2002) who argues that any response of 50% and above is adequate for analysis.

4.3 Data Presentation

This section presents the trend of financial performance between five years (2008-2012) followed by the descriptive results where the study will review whether new products, operation processes and system innovation have any effect on financial performance.

4.3.1 Reviews of New Product Strategies

The study sought to find out if the companies always review new product strategies. The findings are presented in Figure 4.1.Majority of the respondents always review new product strategies while eleven percent does not always review new product strategies. These findings imply that the respondents did recheck the measures they put in place when introducing new products

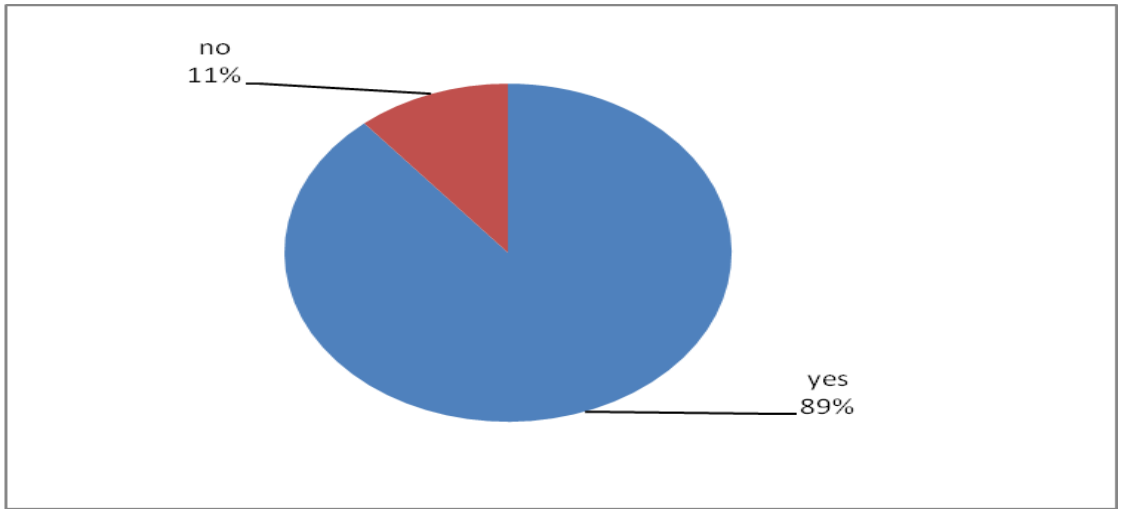

Figure 4.1 Review of new product strategies

4.3.2 Frequency of Reviews

The study sought to find out how often the companies review new product strategies. The findings are presented in Figure 4.2.Majority of the respondents (64%) review new product strategies yearly while 28% review the strategies half yearly. Eight percent (8%)

perform their reviews quarterly. These findings imply that the respondents did recheck the measures they put in place when introducing new products

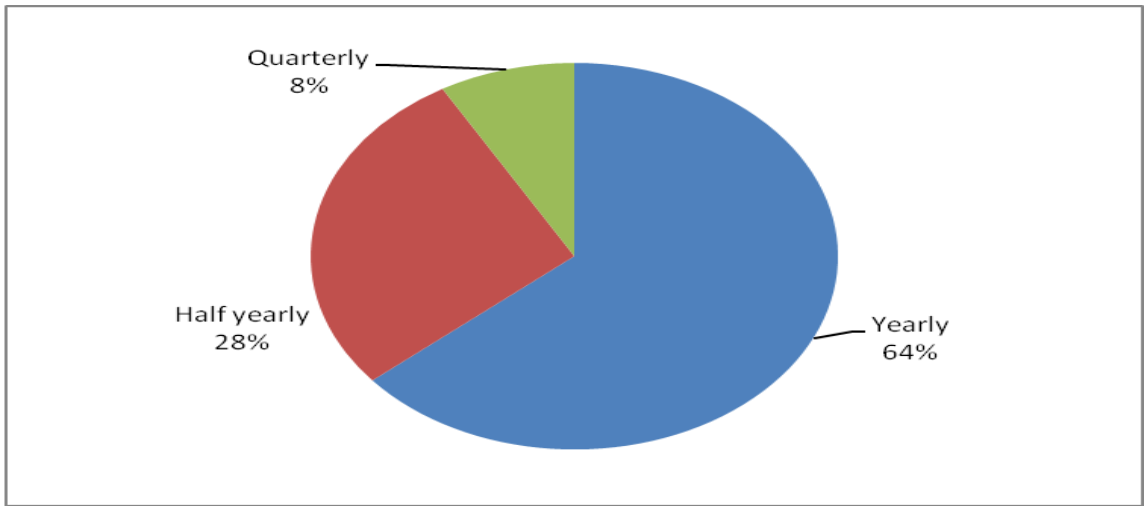

Figure 4.2 Frequency of reviews

4.3.3 Automated Operation Systems

The study sought to establish whether all operations are automated. The findings are presented in Figure 4.3.Majority of the respondents (86%) have all their operations automated while 14% do not have all the operations automated. These findings imply that majority of the respondents put more resources into technology to facilitate them operate efficiently.

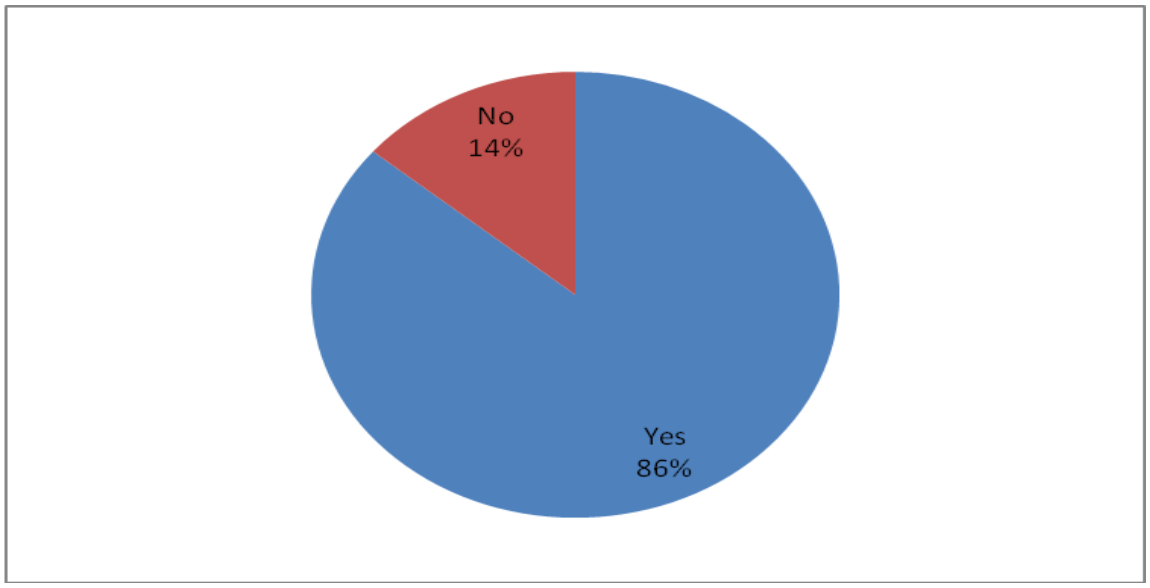

Figure 4.3 Automated Operation Systems

4.3.4 Review of Operation Systems

The study sought to find out how often the operation processes are reviewed. The findings are presented in Figure 4.4.Majority of the respondents (64%) review their operations yearly while 28% review their operations half yearly. Eight percent (8%) review their operations quarterly. These findings imply that majority of the respondents do their reviews on an annual basis.

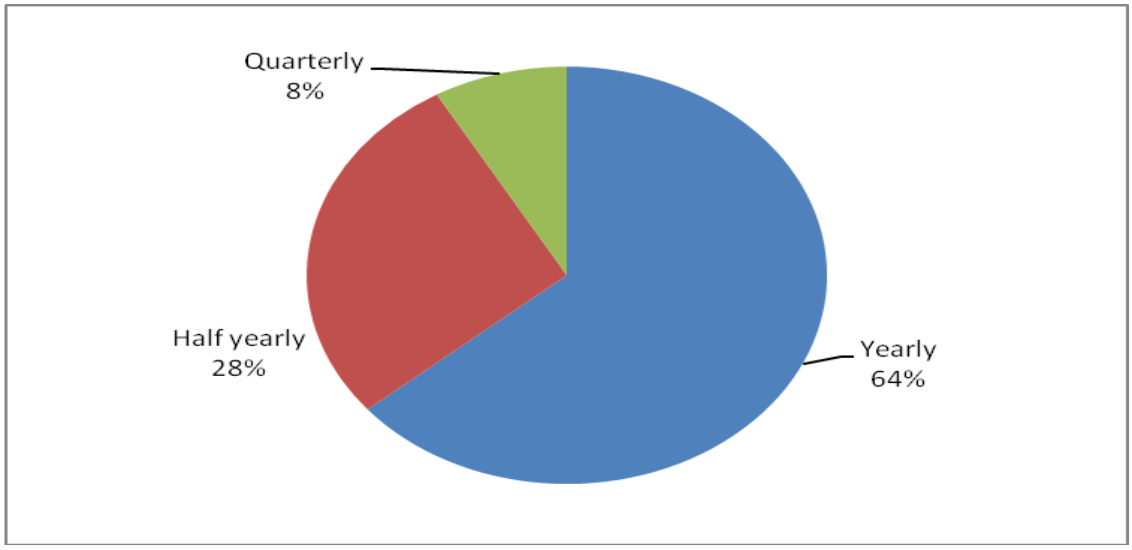

Figure 4.4 Review of Operation Systems

4.3.5 Affiliation to Other Institutions

The study sought to establish the affiliation of the firms to other institutions. The findings are presented in Figure 4.5.Majority of the respondents (83%) are affiliated to other institutions while 17 % are not affiliated to other institutions. These findings imply that majority of the respondents have relationships with other institutions and are not dependent on their own.

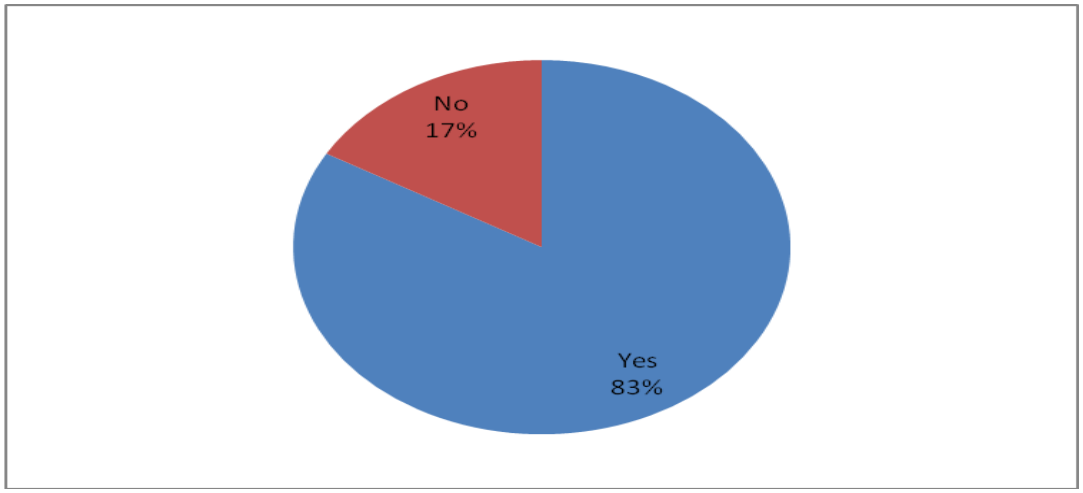

Figure 4.5 Affiliation to Other Institution

4.3.6 Institution Affiliated

The study sought to find out the affiliation of the firms to other institutions. The findings are presented in Figure 4.5.Majority of the respondents (56%) are affiliated to banks while 25% are affiliated to both banks and insurance companies. Fourteen percent (14 %) are affiliated to other insurance companies and 5% of the respondents are affiliated to microfinance institutions. These findings imply that most of the respondents have association with banks as a result of the nature of their operation in finance.

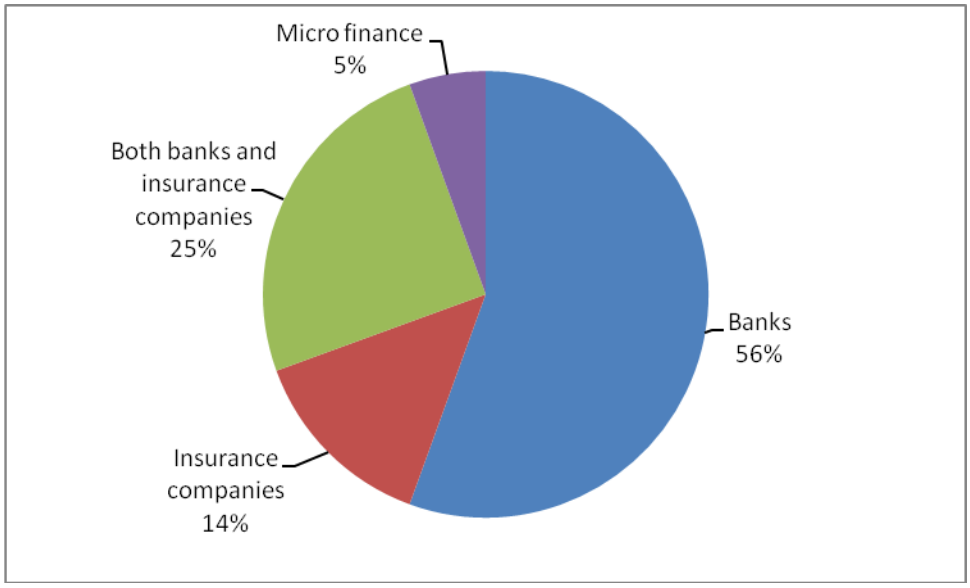

Figure 4.6 Institution affiliated

4.3.7 Nature of Product

The study sought to find out the nature of products. The findings are presented in Figure 4.6.Majority of the respondents (47%) use remodels while 45% deal with both new and remodeled products. Eight percent (8 %) deal with only new products. These findings imply that most of the respondents tend to work with products already introduced in the market.

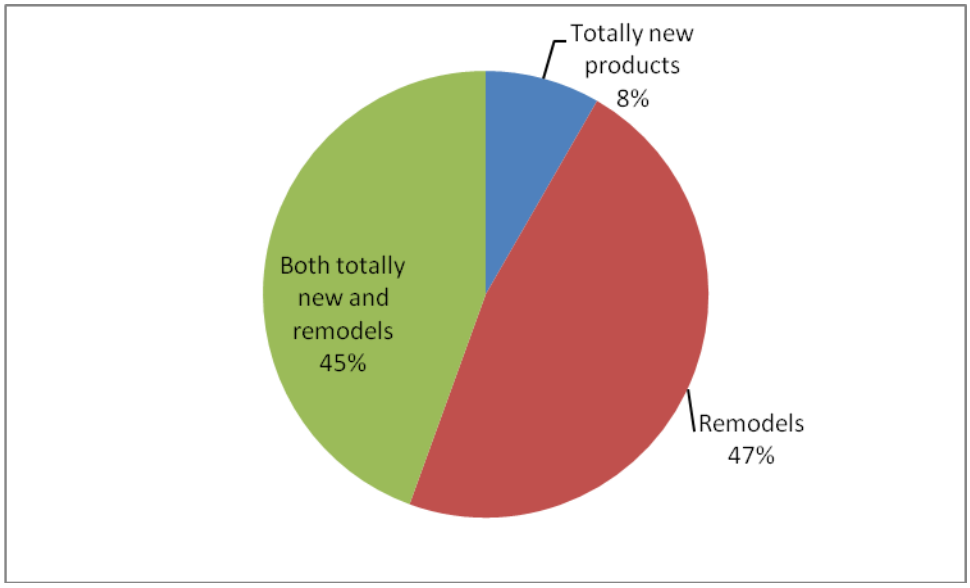

Figure 4.7 Nature of product

4.2.8 Joint Product with Affiliate Institution

The study sought to find out whether the firms offer joint products with affiliate institutions. The findings are presented in Figure 4.7.Majority of the respondents (78%) offer joint products with affiliated institutions while 22% do not offer joint products with affiliate institutions. These findings imply that most of the respondents take advantage of the opportunities presented by affiliate institutions in maximizing their income.

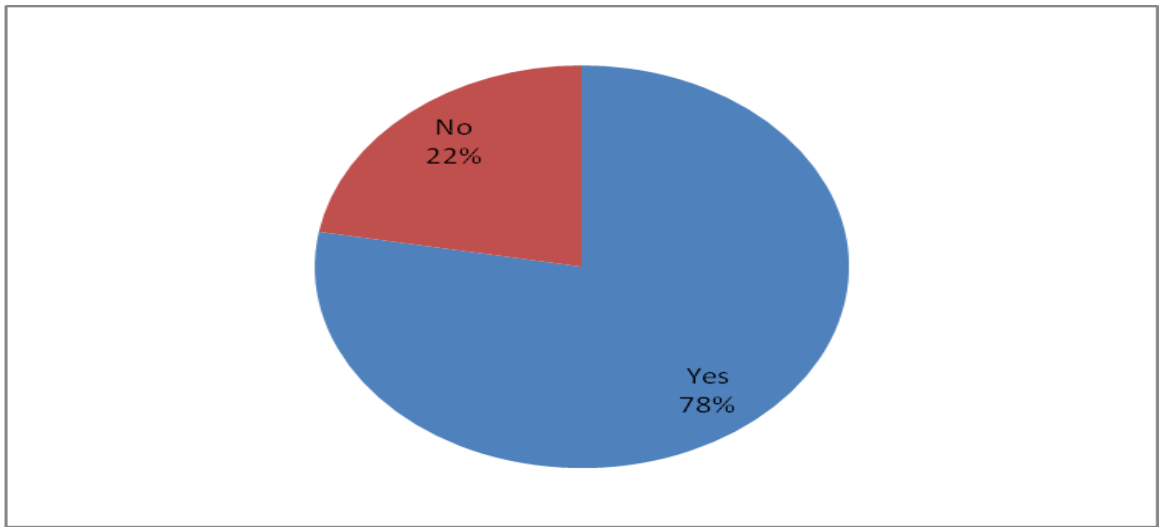

Figure 4.8 Joint products with affiliate institution

4.4 Descriptive Statistics

Descriptive statistics conducted generated the mean and standard deviation of the variables. The mean number of new products per insurance company was 3.4756 with a standard deviation of 1.61154 while operation processes had a mean of 3.6 with a standard deviation of 1.55049. System innovation had a mean of 2.7089 with a standard deviation of 0.75794. Further the results indicate that new products, operation processes and systems innovation are key innovation activities of insurance companies.

Table 4.1 Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
Return on Assets	-1.5008	0.7412	0.0498	0.18368
New products	0.2500	8.25	3.4756	1.61154
Operation processes	0.5000	8.000	3.6000	1.55049
System innovation	0.000	4.500	2.7089	0.75794

4.5 Inferential Statistical Analysis

Inferential analysis conducted generated the model of fitness, and analysis of the variance and regression coefficients.

4.5.1 Regression Analysis

Table 4.2 below shows the fitness of the regression model in explaining the variables under study. The results indicate that the variables; new products, operation processes, system innovation and successful products, operations and innovations were satisfactory in explaining return on assets. This conclusion is supported by the R square of 0.150. This further means that the independent variables can explain 15.0 % of the variation of the dependent variable (Return on assets).

Table 4.2 Model Fitness

Model	**Coefficient**
R	0.387
R Square	0.150
Adjusted R Square	0.130
Std. Error of the Estimate	0.1543

ANOVA statistics presented on Table 4.3 indicate that the overall model was statistically significant. This was supported by a probability (p) value of 0.000. The reported p value was less than the conventional probability of 0.05 significance levels thus its significance in the study. These results indicate that the independent variables are good predictors of return on assets.

Table 4.3 Analysis of variance

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Regression	0.735	4	0.184	7.711	0.000
Residual	4.168	175	0.024		
Total	4.903	179			

Regression of coefficients results in Table 4.4 shows that there is a positive relationship between return on assets and new products, operation processes, system innovations and whose beta coefficients are 0.009, 0.035 and 0.035 respectively. There is a negative relationship between return on assets and successful product, operations and processes exchange rate of -0.004. Statistically significant variables in the study were operation processes and system innovation had p values of 0.000, 0.050 which is lower than the probability conventional of 0.05. These results indicate that the return on assets in insurance companies is determined by operation processes and system innovation, whereas the other variables are not significant to influencing return on assets. This implies that an increase in unit change of operation processes and system innovation of the companies results to a unit change in return on assets. Results reveal that operation processes and system innovations are statistically significant in explaining return on assets of insurance companies. However new products and successful products,

operations and processes were not statistically significant in explaining return on assets but they were positively related with return on assets of insurance companies.

The regression equation was as follows;

Return on assets= -0.184+ 0.009 New products +0.035 Operation processes+ 0.035 System innovation - 0.004 Successful New products, operations processes and successful innovations.

Table 4.4 Regression of coefficients

Variable	**B**	**Std. Error**	**T**	**Sig.**
(Constant)	-0.184	0.061	-3.002	0.003
New products	0.009	0.009	1.066	0.288
Operation processes	0.035	0.008	4.551	0.000
System innovation	0.035	0.018	1.975	0.050
Successful New products, operations processes and successful innovations	-0.004	0.004	-1.088	0.278

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of summary key findings of the study based on results from data analysis and the objectives of the study. Conclusions and recommendations are also included and they are aligned to the findings.

5.2 Summary of Findings

The objective of the study was to establish the effects of financial innovations on the financial performance of the insurance companies in Kenya. The study reviewed whether new products, operation processes, system innovations and success of new products, processes and innovations have any effect on return on assets which was used to measure financial performance. The results generated through data analysis indicate that the variables; products, operation processes, system innovations and success of new products, processes and innovations were satisfactory in explaining the financial performance. This conclusion is supported by the R square of 0.15. This further means that 15% of independent variables can explain the dependent variable (Return on assets).

Findings reveal that the overall model was statistically significant. This was supported by a probability (p) value of 0.000. The reported p value was less than the conventional probability of 0.05 significance levels thus its significance in the study. These results

indicate that the independent variables are good predictors of return on assets. Further, results shows that there is a positive relationship between return on assets and new products, operation processes, system innovations and whose beta coefficients are 0.009, 0.035 and 0.035 respectively. There is a negative relationship between return on assets and successful product, operations and processes exchange rate of -0.004. This implies that an increase in unit change of operation processes and system innovation of the companies results to a unit change in financial performance.

Results reveal that operation processes and system innovations are statistically significant in explaining return on assets of insurance companies. However new products and successful products, operations and processes were not statistically significant in explaining return on assets but they were positively related with return on assets of insurance companies.

5.3 Conclusion

Based on the objectives, findings from the descriptive and inferential results the following conclusions can be made.

Results indicate that the relationship between new products and financial performance is insignificant. Results reveal that operation processes and system innovations are statistically significant in explaining return on assets of insurance companies. The greater the operation processes and system innovations the more the return on assets. This is shown through the regression coefficients between the variables significance which

implies that the financial performance of insurance companies in Kenya have been greatly influenced by system innovations and system innovations.

Operation processes and system innovations influences financial performance. The greater the operation processes and system innovations the more the return on assets. This is shown through the regression coefficients between the variables significance which implies that the indicators.

5.4 Recommendations

The Government should be on the forefront to encourage on innovative ideas and also come up with structures to assist the sector in coming up with sustainable innovations through the various regulatory bodies. Scholars in the field of financial markets & institutions focused on financial innovation should continue to undertake further research in other areas of innovation and factors affecting innovation e.g. taxation, environmental factors and how this can be enhanced to improve performance.

Investors in the Industry should use information from this study to make informed decisions regarding investing on financial innovation. Also should also make use of the weaknesses highlighted to improve on the innovations so as to penetrate the industry. The insurance companies in Kenya should focus on their operation systems especially those that suit their operations e.g. new processes, management processes and financial management processes this can be undertaken through business process reengineering.

Also focus on affiliations with other institutions to reach out to the untapped markets as this has positive relationship to return on assets.

Insurance companies should also enhance on new products development which involves doing market research and product testing. Executives in the Insurance Industry will use the findings of this study in drafting informed innovative strategies and understand the gaps which come along with financial innovations.

5.5 Study Limitation

A limitation for the purpose of this research was regarded as a challenging factor that was present to the researcher when sourcing for information. The data used in this study comprised of secondary data and primary data. Secondary data could not accurately predict the expected and abnormal return due to the different ways the insurance companies carry out their operations where some deal exclusively with life insurance while others deal with general insurance. On the other hand primary data faced its own limitation, for instance, acquiring information from some insurance companies was hindered by the thought of many insurers as a scheme of competitors to gain access of data.

Other limitation of the study is that it concentrated on new products innovation as a predictor of financial performance. This ignored other factors such as innovation on location, size and the index for management competence that influence financial performance of insurance companies.

5.6 Suggestions for Further Study

This study was not exhaustive by any means and therefore it is suggested that another study be conducted in other institutions like health, hospitality industries. The study should use the same variables so as to establish whether the findings of this study will hold true in a different context.

Another study can also be performed on the same research topic using other variables like quantitative indicators, directional indicators or financial indicators to test financial performance so as to establish if the findings agree or disagree with those that have been found.

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APPENDICES

Appendix I: List Of Kenyan Insurance Companies

1. African Merchant Assurance Company Limited(AMACO)
2. APA Insurance Company Limited
3. Apollo Life Assurance Company Limited
4. Blue Shield Insurance Company Limited
5. British American Insurance Company (K) Limited
6. Cannon Assurance Company limited
7. Capex Life Assurance Company Limited
8. CFC Life Assurance Limited
9. Chartis Kenya Insurance Company limited
10. Concord Insurance Company Limited
11. Co-operative Insurance Company of Kenya Limited(CIC)
12. Corporate Insurance Company Limited
13. Directline Assurance Company Limited
14. East Africa Re-Insurance Company
15. Fidelity Shield Insurance Company Limited
16. First Assurance Company Limited
17. GA Insurance Company Limited
18. Gateway Insurance Company Limited

19. Geminia Insurance Company Limited
20. ICEA LION General Insurance Company Limited
21. ICEA LION Life Assurance Company Limited
22. Intra Africa Assurance Company Limited
23. Invesco Assurance Company Limited
24. Kenindia Assurance Company Limited
25. Kenya Orient Insurance Limited
26. Kenya-Re-Insurance Company
27. Madison Insurance Company Kenya Limited
28. Mayfair Insurance Company Limited
29. Mercantile Insurance Company Limited
30. Metropolitan Life Insurance Kenya Limited
31. Occidental Insurance Company Limited
32. Old Mutual Life Assurance Company Limited
33. Pacis Insurance Company Limited
34. Pan Africa Life Assurance Company Limited
35. Phoenix of East Africa Assurance Company Limited
36. Pioneer Life Assurance Company Limited
37. Real Insurance Company Limited
38. Shield Assurance Company Limited
39. Takaful insurance of Africa Limited

40. Tausi Insurance Company Limited
41. The Heritage Insurance Company Limited
42. The Jubilee Insurance Company of Kenya Limited
43. The Kenyan Alliance Insurance Company Limited
44. The Monarch Insurance Company Limited
45. Trident Insurance Company Limited
46. UAP Kenya Insurance Company Limited
47. Xplico Insurance Company Limited

Source: AKI & IRA Reports

APPENDIX II: INTRODUCTORY LETTER

TO WHOM IT MAY CONCERN

Dear Sir/Madam

REF: MBA RESEARCH STUDY

I am a student studying for a Masters in Business Administration at the University of Nairobi. In partial fulfillment of the requirement to the award of the Masters degree, I am required to write a research project.

The topic of my research is; "Effects of financial innovation on financial performance of insurance companies in Kenya"

I kindly request your assistance by availing time to respond to the questionnaire. All data collected will be treated in strict confidence and used only for purpose of this study.

A copy of the final report will be made available to you at upon request. Your co-operation will be highly appreciated.

Yours faithfully,

Mbogoh, Grace Muthoni

APPENDIX III: QUESTIONNAIRE

A study on the effects of financial innovation on financial performance of insurance companies in Kenya

PART A: GENERAL INFORMATION

1) Name of the insurance company ……..

2) How long has the company been in operation? ……

3) Do you always review your new product strategies?

(a) Yes (b) No

4) If yes how often?

(a) Yearly (b) Half yearly (c) Quarterly (d) Others *(specify)* --

---

5) Are all operations automated?

(a) Yes (b) No

6) How often do you review your operation processes?

(a) Yearly (b) Half yearly (c) Quarterly (d) Others *(specify)* --

---

7a) Is your company affiliated to other financial institutions?

(a) Yes (b) No

7b) If Yes, which of the following is it affiliated with?

(a) Bank (b) Insurance company (c) both insurance company & bank

(c) Micro-finance (d) Others *(specify)* ----------

SPECIFIC QUESTIONS

PART B: FINANCIAL INNOVATION

I: NEW PRODUCTS/ SERVICES

1) What is the nature of your product? (Please tick appropriately)

   a) Totally new products (b) Remodels (c) Both totally new & remodels

2) How many new products & remodels were launched by your company in the last 5 years?

Year	2008	2009	2010	2011	2012
Number of new products launched.					

Number of remodel products.					

3) How many of the new products/services & remodels were successful during the following period?

Year	2008	2009	2010	2011	2012
Number of new products successful.					
Number of remodel products successful.					

II: OPERATION PROCESSES (*being the creation of new technologies for providing financial services*)

1) How many new operation processes were launched during the following period?

Year	2008	2009	2010	2011	2012
New operation process launched.					

2) How many of the new operation processes launched were successful in?

Year	2008	2009	2010	2011	2012
Successful operation processes.					

III: SYSTEM INNOVATION (*Being new institutions formed & affiliations, to met unmet needs*)

1) Do you offer joint products with affiliated institution?

a) Yes b) No

2) How many joint products has the company offered with affiliated institutions during the following period?

Year	2008	2009	2010	2011	2012
Joint Products offered.					

3) How many of the joint products done with affiliations were successful during the period?

Year	2008	2009	2010	2011	2012
Successful Affiliations.					

PART C: FINANCIAL PERFORMANCE

1) What are the annual profits after Tax for your company in the following periods?

Year	2008	2009	2010	2011	2012
Annual net Income (KSHS)					

2) What are the total assets for your company in the following periods?

Year	2008	2009	2010	2011	2012
Total assets (KSHS)					

3) What are the total sales for your company in the following periods?

Year	2008	2009	2010	2011	2012
Total sales (KSHS)					

Thank you.

APPENDIX IV: RAW DATA COLLECTED

Name of company	Always review product strategies	Frequency of reviews	Automated operations	Frequency of review of processes	Affiliation to other institutions	YES which institution	Nature of product	Joint products with affiliate institutions
Chartis (k)	Yes	Yearly	Yes	Half yearly	Yes	Banks	Remodels	Yes
Amaco	No	Half yearly	Yes	Yearly	Yes	Both banks and insurance companies	Remodels	Yes
APA	Yes	Yearly	No	Yearly	Yes	Banks	Both totally new and remodels	Yes
Apollo	Yes	Half yearly	Yes	Yearly	No	Banks	Both totally new and remodels	No
British american	Yes	Yearly	No	Yearly	Yes	Banks	Both totally new and remodels	Yes
Canon	Yes	Half yearly	Yes	Quarterly	No	Banks	Totally new products	No
CFC life	No	Yearly	Yes	Yearly	Yes	Insurance companies	Both totally new and remodels	Yes
Corporate	Yes	Half yearly	Yes	Yearly	Yes	Both banks and insurance companies	Remodels	Yes
Directline	Yes	Yearly	No	Yearly	Yes	Banks	Remodels	Yes
East Africa Re	Yes	Yearly	Yes	Yearly	Yes	Both banks and insurance companies	Remodels	Yes
Fidelity shield	No	Yearly	Yes	Half yearly	No	Banks	Both totally new and remodels	No
First assurance	Yes	Half yearly	No	Yearly	Yes	Insurance companies	Both totally new and remodels	Yes
Gateway	Yes	Yearly	Yes	Yearly	No	Banks	Both totally new and remodels	Yes
Geminia	Yes	Yearly	Yes	Half yearly	Yes	Banks	Totally new products	No
GA	Yes	Yearly	Yes	Yearly	Yes	Banks	Remodels	Yes

Name of company	Always review product strategies	Frequency of reviews	Automated operations	Frequency of review of processes	Affiliation to other institutions	YES which institution	Nature of product	Joint products with affiliate institutions
Heritage A	Yes	Quarterly	Yes	Yearly	Yes	Both banks and insurance companies	Remodels	Yes
ICEA	Yes	Half yearly	Yes	Quarterly	Yes	Banks	Both totally new and remodels	Yes
Intra Africa	Yes	Yearly	Yes	Half yearly	Yes	Banks	Remodels	No
Jubilee	Yes	Yearly	Yes	Yearly	Yes	Banks	Remodels	Yes
Kenindia	Yes	Yearly	Yes	Half yearly	Yes	Banks	Remodels	No
Kenya alliance	No	Quarterly	Yes	Yearly	Yes	Banks	Remodels	Yes
Kenyaorient	Yes	Yearly	Yes	Quarterly	No	Both banks and insurance companies	Both totally new and remodels	Yes
Kenya Re	Yes	Yearly	Yes	Half yearly	Yes	Both banks and insurance companies	Both totally new and remodels	Yes
Madison	Yes	Half yearly	Yes	Half yearly	Yes	Insurance companies	Remodels	Yes
MayFair	Yes	Yearly	Yes	Yearly	Yes	Micro finance	Remodels	Yes
Mercantile	Yes	Yearly	Yes	Quarterly	Yes	Both banks and insurance companies	Remodels	No
Occidental	Yes	Yearly	Yes	Half yearly	Yes	Banks	Remodels	Yes
Pacis	Yes	Yearly	Yes	Yearly	Yes	Banks	Remodels	Yes
Pan Africa Life	Yes	Half yearly	Yes	Half yearly	Yes	Banks	Both totally new and Remodels	Yes
Phoenix	Yes	Half yearly	Yes	Yearly	Yes	Insurance companies	Both totally new and remodels	Yes
Pioneer	Yes	Yearly	Yes	Quarterly	Yes	Micro finance	Both totally new and remodels	Yes
Real	Yes	Quarterly	Yes	Yearly	Yes	Banks	Totally new products	No
Tausi	Yes	Yearly	Yes	Half yearly	Yes	Insurance companies	Both totally new and remodels	Yes

Name of company	Always review product strategies	Frequency of reviews	Automated operations	Frequency of review of processes	Affiliation to other institutions	YES which institution	Nature of product	Joint products with affiliate institutions
The Monarch	Yes	Yearly	No	Yearly	Yes	Banks	Both totally new and remodels	Yes
Trident	Yes	Half yearly	Yes	Quarterly	No	Both banks and insurance companies	Remodels	Yes
UAP	Yes	Yearly	Yes	Half yearly	Yes	Both banks and insurance companies	Both totally new and remodels	Yes

Name of company	Year	Newproducts1	Newproducts2	Successful Newproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	Successful NP_OP_SI
Chartis (k)	2008	3	2	3	2	4	2	4	3	10
Chartis (k)	2009	5	4	4	3	5	3	3	2	12
Chartis (k)	2010	6	4	4	4	4	2	3	2	12
Chartis (k)	2011	8	5	6	5	3	2	3	2	15
Chartis (k)	2012	9	7	7	6	3	6	4	3	22
Amaco	2008	1	0	0	0	3	1	3	2	3
Amaco	2009	2	1	1	1	3	2	3	2	6
Amaco	2010	2	1	2	1	3	1	4	3	7
Amaco	2011	3	3	3	3	3	1	3	2	9

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Amaco	2012	4	3	3	2	2	1	3	1	7
APA	2008	2	3	2	2	3	2	3	2	8
APA	2009	3	2	2	1	4	3	3	2	8
APA	2010	3	2	2	2	4	2	4	3	9
APA	2011	4	3	3	3	2	1	3	2	9
APA	2012	5	4	4	4	5	4	3	2	14
Apollo	2008	2	1	1	1	4	3	4	3	8
Apollo	2009	2	1	2	1	4	2	3	2	7
Apollo	2010	3	3	3	2	4	3	3	2	10
Apollo	2011	5	5	6	5	4	3	4	3	17
Apollo	2012	5	4	4	4	6	3	3	2	13
British american	2008	3	2	2	2	6	4	3	2	10
British american	2009	4	3	3	3	4	3	3	1	10
British american	2010	5	5	5	5	6	4	3	3	17
British american	2011	6	5	5	5	3	5	3	2	17
British american	2012	5	4	4	4	6	4	4	3	15
Canon	2008	1	0	0	0	4	2	3	2	4
Canon	2009	2	1	1	1	4	1	3	2	5
Canon	2010	2	1	1	1	5	1	4	3	6
Canon	2011	3	2	2	2	4	2	3	2	8
Canon	2012	5	3	3	3	6	3	3	2	11
CFC life	2008	3	2	2	2	5	2	3	1	7

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
CFC life	2009	4	3	3	3	4	2	4	3	11
CFC life	2010	5	4	4	4	2	4	3	2	14
CFC life	2011	5	3	3	3	8	3	3	2	11
CFC life	2012	6	4	4	4	6	3	3	3	14
Corporate	2008	2	1	1	1	3	1	3	2	5
Corporate	2009	3	2	2	2	8	2	4	3	9
Corporate	2010	4	3	4	3	5	2	3	2	11
Corporate	2011	4	3	3	3	3	1	3	1	8
Corporate	2012	6	5	5	4	4	3	2	1	13
Directline	2008	3	2	2	2	4	2	3	3	9
Directline	2009	4	4	4	4	4	4	3	2	14
Directline	2010	3	3	3	3	4	3	3	1	10
Directline	2011	4	3	3	3	5	3	3	2	11
Directline	2012	5	4	4	3	4	3	4	3	13
East Africa Re	2008	3	3	3	3	6	3	3	2	11
East Africa Re	2009	4	2	2	2	4	2	3	2	8
East Africa Re	2010	7	5	5	5	2	1	3	1	12
East Africa Re	2011	6	5	5	5	4	3	3	2	15
East Africa Re	2012	9	7	7	6	2	1	4	3	17
Fidelity shield	2008	4	3	3	3	4	3	3	2	11
Fidelity shield	2009	4	2	2	2	4	2	3	2	8
Fidelity shield	2010	6	5	5	5	4	3	3	1	14

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Fidelity shield	2011	7	6	6	6	4	3	3	1	16
Fidelity shield	2012	7	6	6	6	5	3	3	2	17
First assurance	2008	2	1	1	1	4	2	3	1	5
First assurance	2009	2	2	1	2	5	3	3	2	8
First assurance	2010	3	2	2	2	6	4	3	2	10
First assurance	2011	4	3	3	3	1	0	3	3	9
First assurance	2012	6	5	5	5	3	2	3	1	13
Gateway	2008	3	3	3	3	4	3	3	2	11
Gateway	2009	4	3	3	3	2	1	5	4	11
Gateway	2010	5	4	4	4	4	3	3	3	14
Gateway	2011	5	4	4	4	4	3	3	2	13
Gateway	2012	2	2	2	2	3	2	4	3	9
Geminia	2008	3	2	2	2	4	2	3	2	8
Geminia	2009	4	3	3	3	7	5	3	2	13
Geminia	2010	2	2	1	2	4	2	3	1	6
Geminia	2011	4	3	3	3	6	4	3	3	13
Geminia	2012	5	4	4	4	7	5	4	3	16
GA	2008	3	3	3	3	5	3	3	2	11
GA	2009	2	1	1	1	2	1	3	1	4
GA	2010	4	3	3	3	4	3	4	3	12
GA	2011	6	5	5	5	8	6	3	2	18
GA	2012	7	6	6	5	8	7	3	2	20

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Heritage A	2008	5	4	5	4	4	3	3	2	14
Heritage A	2009	6	4	4	4	2	1	4	3	12
Heritage A	2010	7	5	7	5	9	7	3	2	21
Heritage A	2011	7	6	8	6	2	1	3	2	17
Heritage A	2012	9	8	8	8	9	7	3		23
ICEA	2008	4	3	4	3	9	6	3	2	15
ICEA	2008	4	3	3	3	8	5	4	3	14
ICEA	2010	5	4	4	4	6	4	3	2	14
ICEA	2011	6	5	5	5	2	1	3	2	13
ICEA	2012	8	7	7	6	4	3	3	1	17
Intra Africa	2008	2	2	1	2	4	2	3	1	6
Intra Africa	2009	3	2	2	2	5	3	3	2	9
Intra Africa	2010	3	2	3	2	2	2	3	3	10
Intra Africa	2011	5	4	5	3	1	1	3	2	11
Intra Africa	2012	6	4	4	4	6	4	3	3	15
Jubilee	2008	4	3	3	2	4	2	3	2	9
Jubilee	2009	5	4	5	4	3	2	4	3	14
Jubilee	2010	5	4	5	4	3	2	3	2	13
Jubilee	2011	6	5	6	5	4	3	3	2	16
Jubilee	2012	8	7	7	7	2	1	3	2	17
Kenindia	2008	2	1	1	1	6	5	3	3	10
Kenindia	2009	3	2	2	2	4	3	4	2	9

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Kenindia	2010	4	3	3	3	4	3	3	2	11
Kenindia	2011	4	3	3	3	4	3	3	1	10
Kenindia	2012	5	4	4	4	5	4	3	2	14
Kenya alliance	2008	4	4	4	4	3	2	4	3	13
Kenya alliance	2009	5	4	5	4	2	1	3	2	12
Kenya alliance	2010	4	3	4	3	3	2	3	2	11
Kenya alliance	2011	6	5	5	5	9	5	3	2	17
Kenya alliance	2012	7	6	6	6	2	1	4	3	16
Kenyaorient	2008	2	1	1	1	2	1	3	2	5
Kenyaorient	2009	3	2	2	1	2	1	3	2	6
Kenyaorient	2010	3	2	2	1	5	3	3	2	8
Kenyaorient	2011	4	3	3	3	4	3	3	2	11
Kenyaorient	2012	5	4	4	3	4	3	3	3	13
Kenya Re	2008	6	5	5	5	1	1	4	3	14
Kenya Re	2009	5	4	5	4	7	4	5	4	17
Kenya Re	2010	7	6	6	5	6	5	3	2	18
Kenya Re	2011	8	6	6	6	7	6	3	2	20
Kenya Re	2012	9	7	9	5	3	5	4	3	22
Madison	2008	2	1	1	1	9	5	3	1	8
Madison	2009	3	2	2	2	4	2	4	5	11
Madison	2010	4	3	3	3	4	3	3	2	11
Madison	2011	4	3	3	3	4	3	4	3	12

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Madison	2012	6	5	5	4	6	4	3	2	15
MayFair	2008	1	2	2	2	3	2	2	1	7
MayFair	2009	2	2	2	1	9	7	3	3	13
MayFair	2010	2	2	2	1	4	3	4	3	9
MayFair	2011	3	2	2	1	6	4	0	0	7
MayFair	2012	5	4	4	4	4	3	3	2	13
Mercantile	2008	2	1	1	1	4	1	1	0	3
Mercantile	2009	1	1	1	1	4	1	3	2	5
Mercantile	2010	3	2	2	1	5	3	3	2	8
Mercantile	2011	5	4	4	4	1	4	3	1	13
Mercantile	2012	4	3	3	3	6	3	4	3	12
Occidental	2008	3	2	2	2	8	6	5	4	14
Occidental	2009	3	2	3	2	2	2	3	2	9
Occidental	2010	2	1	1	1	4	1	5	4	7
Occidental	2011	4	3	3	2	5	4	3	2	11
Occidental	2012	5	4	4	4	4	4	5	4	16
Pacis	2008	4	3	3	3	2	1	3	2	9
Pacis	2009	6	5	5	5	7	5	5	4	19
Pacis	2010	6	5	5	5	6	5	2	1	16
Pacis	2011	7	6	6	6	5	4	3	2	18
Pacis	2012	9	8	8	7	4	3	3	2	20
Pan Africa Life	2008	3	2	2	1	4	3	4	3	9

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Pan Africa Life	2009	3	2	2	1	5	3	3	2	8
Pan Africa Life	2010	4	3	3	3	6	4	3	2	12
Pan Africa Life	2011	2	1	1	1	4	3	0	0	5
Pan Africa Life	2012	5	4	4	4	4	2	3	1	11
Phoenix	2008	3	2	2	2	4	3	3	2	9
Phoenix	2009	4	3	3	2	4	2	4	3	10
Phoenix	2010	5	3	3	3	5	3	3	2	11
Phoenix	2011	4	4	4	4	4	4	3	1	13
Phoenix	2012	7	5	5	4	3	4	5	3	16
Pioneer	2008	4	3	3	3	4	3	2	1	10
Pioneer	2009	5	4	4	3	6	3	4	3	13
Pioneer	2010	6	4	4	4	4	2	3	2	12
Pioneer	2011	7	5	5	5	4	3	3	2	15
Pioneer	2012	7	6	6	5	4	2	4	3	16
Real	2008	4	3	3	3	4	3	3	2	11
Real	2009	3	1	1	1	4	2	4	2	6
Real	2010	5	4	4	4	4	3	3	1	12
Real	2011	6	5	5	5	4	3	3	2	15
Real	2012	6	5	5	4	5	4	4	3	16
Tausi	2008	1	0	0	0	4	2	3	2	4
Tausi	2009	3	2	2	2	4	3	3	2	9
Tausi	2010	3	2	2	2	4	2	3	1	7

Name of company	Year	Newproducts1	Newproducts2	SuccessfulNewproducts1	SuccessfulNewproducts2	Operationprocesses1	Operationprocesses2	Systeminnovation1	Systeminnovation2	SuccessfulNP_OP_SI
Tausi	2011	4	3	3	3	2	1	3	2	9
Tausi	2012	5	4	5	4	4	4	4	2	15
The Monarch	2008	2	2	2	2	1	2	3	1	7
The Monarch	2009	3	2	2	2	4	3	5	4	11
The Monarch	2010	3	1	1	1	6	5	3	2	9
The Monarch	2011	4	3	3	3	4	3	3	1	10
The Monarch	2012	4	3	3	3	7	5	4	3	14
Trident	2008	3	2	2	1	4	1	3	2	6
Trident	2009	4	3	3	3	5	3	3	3	12
Trident	2010	3	2	2	1	4	3	3	1	7
Trident	2011	5	4	4	4	4	3	4	2	13
Trident	2012	7	5	5	5	5	4	3	1	15
UAP	2008	5	2	2	2	4	2	2	1	7
UAP	2009	4	3	3	3	4	3	3	3	12
UAP	2010	4	4	4	3	3	3	4	2	12
UAP	2011	5	4	4	4	5	4	3	1	13
UAP	2012	7	5	5	4	4	3	5	4	16

Financial Performance

Name of company	Year	Financial performance1	Financial performance2	Financial performance3	ROA
Chartis (k)	2008	216633	1590002	1751132	0.136247
Chartis (k)	2009	173524	1944617	1952085	0.089233
Chartis (k)	2010	367824	2462986	2565865	0.149341
Chartis (k)	2011	416956	2596037	2803897	0.160613
Chartis (k)	2012	611866	4186280	3203366	0.14616
Amaco	2008	42805	625056	563755	0.068482
Amaco	2009	104046	1412297	1387417	0.073671
Amaco	2010	100734	1861571	1736718	0.054112
Amaco	2011	80690	1777627	1770764	0.045392
Amaco	2012	95827	2310991	1912372	0.041466
APA	2008	101487	4490812	2334079	0.022599
APA	2009	227279	5555183	3611216	0.040913
APA	2010	242541	7069553	4577924	0.034308
APA	2011	307824	7643218	5019781	0.040274
APA	2012	234951	9288824	5590037	0.025294
Apollo	2008	34454	1774343	244625	0.019418
Apollo	2009	0	1064253	297795	0
Apollo	2010	89356	1592363	360785	0.056115
Apollo	2011	5770	1620366	427255	0.003561
Apollo	2012	72064	2038926	463739	0.035344
British american	2008	511753	1162250	670477	0.440312

British american	2009	325931	1982730	1450081	0.164385
British american	2010	885616	2921751	1777007	0.303111
British american	2011	689323	3158330	2349216	0.218256
British american	2012	1050166	5817682	3112744	0.180513
Canon	2008	73906	1084591	534414	0.068142
Canon	2009	234434	1882950	756792	0.124504
Canon	2010	315528	2244023	906389	0.140608
Canon	2011	163451	2445529	1002109	0.066837
Canon	2012	503832	2925182	1065299	0.17224
CFC life	2008	255032	524523	1773782	0.486217
CFC life	2009	-432592	468256	2406894	-0.92384
CFC life	2010	307160	414385	2794693	0.741243
CFC life	2011	-254580	169624	3357488	-1.50085
CFC life	2012	378308	18091887	3572436	0.02091
Corporate	2008	10381	554725	339457	0.018714
Corporate	2009	57799	566665	361448	0.101999
Corporate	2010	83868	840221	355653	0.099817
Corporate	2011	34690	861476	324823	0.040268
Corporate	2012	186855	1132308	322236	0.165021
Directline	2008	10957	730280	320270	0.015004
Directline	2009	68424	1523009	1188241	0.044927
Directline	2010	55184	2304355	1573296	0.023948
Directline	2011	176729	2908634	1802180	0.06076
Directline	2012	322539	3508460	2051764	0.091932
East Africa Re	2008	119200	2305355	79858	0.051706

East Africa Re	2009	172078	2270954	163569	0.075773
East Africa Re	2010	230254	2702929	199999	0.085187
East Africa Re	2011	150125	3238016	283894	0.046363
East Africa Re	2012	384471	4016214	302941	0.09573
Fidelity shield	2008	98440	973895	672944	0.101079
Fidelity shield	2009	154409	1242949	792197	0.124228
Fidelity shield	2010	221737	1550657	859940	0.142996
Fidelity shield	2011	77431	1702948	1011867	0.045469
Fidelity shield	2012	178201	2226088	1080204	0.080051
First assurance	2008	102567	1278955	1011114	0.080196
First assurance	2009	160770	1974808	1607475	0.08141
First assurance	2010	232204	2938856	2054003	0.079012
First assurance	2011	322227	3524414	2370139	0.091427
First assurance	2012	449121	4508176	2942554	0.099624
Gateway	2008	30582	1057886	425095	0.028909
Gateway	2009	50012	1429455	610954	0.034987
Gateway	2010	28826	1335977	520239	0.021577
Gateway	2011	680856	2105846	519299	0.323317
Gateway	2012	13323	2033204	443527	0.006553
Geminia	2008	23192	808218	447461	0.028695
Geminia	2009	380123	1285865	587294	0.295617
Geminia	2010	92557	1528926	735905	0.060537
Geminia	2011	144884	1694079	899009	0.085524
Geminia	2012	416511	2533568	1072302	0.164397
GA	2008	215816	1763548	659899	0.122376

GA	2009	155313	2301877	1093890	0.067472
GA	2010	185748	4025039	1392921	0.046148
GA	2011	279395	4540414	1817674	0.061535
GA	2012	462117	5542595	2351860	0.083376
Heritage A	2008	281454	2907637	1489634	0.096798
Heritage A	2009	129111	3365432	1908465	0.038364
Heritage A	2010	278539	4021461	2463011	0.069263
Heritage A	2011	486664	3959224	3248925	0.122919
Heritage A	2012	664098	4833748	3405693	0.137388
ICEA	2008	389932	2714750	1108132	0.143635
ICEA	2008	300113	3125658	1620749	0.096016
ICEA	2010	385123	3494455	1912878	0.11021
ICEA	2011	630482	4246650	1914917	0.148466
ICEA	2012	633383	8950974	4014687	0.070761
Intra Africa	2008	26746	855534	403422	0.031262
Intra Africa	2009	61290	835568	498188	0.073351
Intra Africa	2010	109998	906419	560626	0.121354
Intra Africa	2011	209567	1166617	671682	0.179637
Intra Africa	2012	113951	1281819	726920	0.088898
Jubilee	2008	381257	4460510	2222904	0.085474
Jubilee	2009	676839	5394379	3370307	0.125471
Jubilee	2010	1258712	7347065	4479085	0.171322
Jubilee	2011	1085937	8534128	6660922	0.127246
Jubilee	2012	1112447	10554701	8085351	0.105398
Kenindia	2008	-631674	3150746	2951375	-0.20048

Kenindia	2009	261505	3241971	2733751	0.080662
Kenindia	2010	464123	3934272	3239119	0.117969
Kenindia	2011	-182903	3806844	3565694	-0.04805
Kenindia	2012	171687	7761609	3376540	0.02212
Kenya alliance	2008	45147	2152517	283255	0.020974
Kenya alliance	2009	338108	2423750	248361	0.139498
Kenya alliance	2010	329846	2626908	492868	0.125564
Kenya alliance	2011	196089	2619834	785403	0.074848
Kenya alliance	2012	147260	2812235	950893	0.052364
Kenyaorient	2008	19045	442879	344520	0.043003
Kenyaorient	2009	45714	608398	581611	0.075138
Kenyaorient	2010	4744	723811	768799	0.006554
Kenyaorient	2011	50795	995964	1026345	0.051001
Kenyaorient	2012	99740	1272510	1302058	0.078381
Kenya Re	2008	965746	12432854	538297	0.077677
Kenya Re	2009	1229845	12226981	552472	0.100585
Kenya Re	2010	1329030	14072736	592318	0.09444
Kenya Re	2011	1386677	15352503	854741	0.090323
Kenya Re	2012	1972586	19309484	904238	0.102156
Madison	2008	36647	692745	626128	0.052901
Madison	2009	60018	857046	648314	0.070029
Madison	2010	130106	1205559	927568	0.107922
Madison	2011	34068	1204911	1080192	0.028274
Madison	2012	136517	1517818	1002014	0.089943
MayFair	2008	-1196	477501	245945	-0.0025

MayFair	2009	5231	779304	535164	0.006712
MayFair	2010	30255	1029697	675641	0.029382
MayFair	2011	33628	1304732	1004200	0.025774
MayFair	2012	44905	2172568	1258448	0.020669
Mercantile	2008	33694	524243	351927	0.064272
Mercantile	2009	55161	557395	415273	0.098962
Mercantile	2010	67325	666127	478904	0.101069
Mercantile	2011	99322	708259	560389	0.140234
Mercantile	2012	140341	802156	616029	0.174955
Occidental	2008	62513	842234	723130	0.074223
Occidental	2009	127146	1024588	1004820	0.124095
Occidental	2010	60362	1212743	1122589	0.049773
Occidental	2011	101035	1550739	1275263	0.065153
Occidental	2012	154357	1938521	1498374	0.079626
Pacis	2008	26610	220104	162494	0.120897
Pacis	2009	26501	429087	313596	0.061761
Pacis	2010	81667	737090	425013	0.110797
Pacis	2011	51281	826161	509147	0.062071
Pacis	2012	62704	998457	704491	0.062801
Pan Africa Life	2008	175534	4718591	2129089	0.037201
Pan Africa Life	2009	-34731	6422317	3130935	-0.00541
Pan Africa Life	2010	185000	9261839	4030628	0.019974
Pan Africa Life	2011	-9286	9702095	3857913	-0.00096
Pan Africa Life	2012	-20520	14686549	5776406	-0.0014
Phoenix	2008	12285	2302366	481685	0.005336

Phoenix	2009	41170	2001901	436481	0.020565
Phoenix	2010	145830	2077250	408902	0.070203
Phoenix	2011	15428	1767169	419844	0.00873
Phoenix	2012	54586	1961912	406265	0.027823
Pioneer	2008	4404	507562	296219	0.008677
Pioneer	2009	40668	823340	512065	0.049394
Pioneer	2010	55457	886595	565394	0.062551
Pioneer	2011	38697	1021167	770120	0.037895
Pioneer	2012	41048	997508	964576	0.041151
Real	2008	92476	1107414	699814	0.083506
Real	2009	86497	1512686	1133689	0.057181
Real	2010	100078	1696766	1345659	0.058982
Real	2011	151909	2074047	1540420	0.073243
Real	2012	201989	2712322	2217762	0.074471
Tausi	2008	2016	948941	493944	0.002124
Tausi	2009	12169	1282375	503415	0.009489
Tausi	2010	148163	1453342	548112	0.101946
Tausi	2011	89066	1534998	614626	0.058024
Tausi	2012	197018	1821756	727202	0.108147
The Monarch	2008	8371	485827	140256	0.01723
The Monarch	2009	-17343	387036	162670	-0.04481
The Monarch	2010	-11018	563262	261973	-0.01956
The Monarch	2011	52249	553709	251516	0.094362
The Monarch	2012	13617	629018	326927	0.021648
Trident	2008	54065	1177852	356443	0.045901

Trident	2009	470856	2182039	511729	0.215787
Trident	2010	98431	2196863	603395	0.044805
Trident	2011	82808	2715008	723939	0.0305
Trident	2012	82808	2715008	685896	0.0305
UAP	2008	888247	7245725	409965	0.122589
UAP	2009	-109328	2133210	702732	-0.05125
UAP	2010	-47964	2647637	863479	-0.01812
UAP	2011	1171611	7739194	1009809	0.151387
UAP	2012	-202491	10668546	1302791	-0.01898