

**THE INFLUENCE OF ICT ADOPTION ON PERFORMANCE OF
MICRO INSURANCE BUSINESS IN KENYA**

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DECLARATION

This research project is my original work and has not been presented for the award of another degree or diploma or certificate in this university or any other institution of learning.

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DEDICATION

This Research project is dedicated to my late father, who was a mentor and was always patient and ready to listen to what I had to say. Daddy you should have being alive to see me accomplish your dream, your memories will forever live on.

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LIST OF ABBREVIATIONS/ ACRONYMS

AIC	Agriculture Insurance Company of India
CCIS	Comprehensive Crop Insurance Scheme
DOI	Diffusion of Innovation
GDP	Gross Domestic Product
HMO	Health Maintenance Organizations
IBLI	Index Based Livestock Insurance
ICT	Information and Communication Technology
ILO	International Labour Organization
ILRI	International Livestock Research Institute
LIC	Life Insurance Company
MFI	Microfinance Institutions
MI	Micro Insurance
NABARD	National Bank for Agriculture and Rural Development
NAIS	National Agriculture Insurance Scheme
NGO	Non-Governmental Organization
RM	Risk Management
SPSS	Statistical Package for the Social Sciences
SRM	Social Risk Management
ASA	Activists for Social Alternative
CVI	Content Validity Index
KYC	Know Your Customer
EAC	East Africa Commission
AKI	Association of Kenya Insurers
IRA	Insurance Regulatory Authority

ABSTRACT

The main objective of the study was to determine the types of ICT adopted by firms offering micro insurance products in Kenya and to determine the effect of the ICT adopted on business performance of firms offering micro insurance in Kenya. The study was based on the diffusion of innovations theory that sought to explain how, why, and at what rate new ideas and technology spread through cultures. The study adopted descriptive research design. The population of the study comprised all insurance companies providing micro insurance products in Kenya. Currently there are thirty five (35) companies dealing with micro insurance business in Kenya (Appendix 1) acquired from the Insurance Regulatory Authority (IRA, 2010). Quantitative and Qualitative data was collected; Semi-structured questionnaires were used to collect primary data at the premises of the participant insurance firms. Owing to the qualitative and quantitative nature of the information sought, both descriptive and inferential analyses were used in data analysis. Descriptive analysis was performed in order to describe the data by showing measures of central tendencies (means) and measures of dispersion (standard deviation). The study findings established that ICT adoption is very crucial for the performance of firms offering micro insurance in Kenya; the variables client appraisal, staff performance product development and firms' processes was significantly influenced by the adoption of ICT in firms offers micro insurance; ICT adoption in the firms has a significant effect on the client's appraisal. It was further revealed that ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer KYC' details. ICT adoption in firms offering micro insurance has a direct influence on the performance of staff and that the Processing of claims by staff is more efficient while using ICT systems than when manual system was being used. The study recommends that improved ICT in the firms offering micro insurance in Kenya. Kenyan insurance companies have found it easy and cost effective to establish within the EAC member states. With improved access to mobile phones, improved connectivity, satellite communication and e-mail, insurance companies are able to engage professionals like accountants and lawyers to offer services.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In the last two decades of innovative linkages between Information and Communication Technology (ICT) and business performance growth has been fuelled by the enormous opportunities presented by strategies in the areas of efficiency improvements, operational support, product development, of various Management Information Systems (Rockart, 1988). Many firms have continued to utilise linkage of ICT, within their various functions and operations. ICT can no longer be ignored in strategic management. While traditionally, ICT has been perceived as being a means to provide more efficient processes that would lead to lower cost of products and services, it is widely acknowledged today that ICT is central in formulating and executing strategies in many organizations.

Micro-insurance is a term increasingly used to refer to insurance characterized by low premium and low coverage limits, sold as part of atypical risk-pooling and marketing arrangements, and designed to service low-income people and businesses not served by typical social or commercial insurance schemes. Business performance from the management perspective includes activities which ensure that goals are consistently being met in an effective and efficient manner. Performance management focuses on the performance of an organization, a department, employee, or even the processes to build a product of service, as well as many other areas (Zaffron, Logan, Steve, David, 2009).

Theories have explained the relationship between technology adoptions on performance. It adopts two assumptions in analysing sources of competitive advantage. Secondly, it assumes that resource heterogeneity may persist over time because the resources used to implement firms' strategies are not perfectly mobile across firms, that is, some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate. This study will also

employ the Fabozzi et al., (2003) prospect theory in an attempt describe decisions between alternatives that involve risk among the farmers with low incomes.

Insurance firms find themselves in an environment of constant technological change especially in ICT and need to adopt these changes in their business operations. These changes may become significant threats when ignored, but they may well become valuable opportunities when anticipated and appropriately adopted since the adoption and assimilation of ICT is recognized as an important factor in the growth equation. ICT improve efficiency and increase productivity by different ways including, improving efficiency in resource allocation, reducing transaction costs, and technical improvement, leading to the outward shifting of the production function (Stroeken, 2001).

1.1.1 Information and Communication Technology (ICT)

Information and Communication Technologies is defined as a diverse set of technological tools and recourses used to communicate and create, disseminate, store and manage information. These technologies include computers, the internet, broadcasting technologies (radio and television), telephone and mobile phone. It is a composite term, which embodies three important concepts. To understand ICT, one must understand all three concepts. "Information" means many things to many people, depending on the context. Scientifically, information is processed data. Information can also be loosely defined as that which aids decision making. Information, though abstract, could also be visualized as a commodity, which could be bought or sold. Other writers have defined information as: whatever is capable of causing a human mind to change its opinion about the current state of the real world (Watteville and Gilbert, 2000).

Communication refers to the transfer or exchange of information from person to person or from one place to another. When action produce a reaction, whether positive or negative,

communication has taken place. It involves the exchange of ideas, facts, opinions, attitudes and beliefs between people. It is not a one-way affair. There must be a sender to transmit the message, and receiver to make appropriate decisions on how the rest of the exchange should continue (James and Short, 2004).

Technology refers to the use of scientific knowledge to invent tools that assist human beings in their efforts to overcome environmental hazards and impediments to comfort. In this regard, technology refers to the things like the computer, telephone, cell phone, GSM handsets, television, radio, etc. Put together, therefore, ICT has been defined as: The acquisition, analysis, manipulation, storage and distribution of information; and the design and provision of equipment and software for these purposes. IT implies communication and therefore it becomes obvious that the two terms are synonymous. ICT Adoption concept indicates that the main reasons for the new developments are the imperfections of the ICT adoption market, mainly the asymmetric information, agency costs and transaction costs (Fabozzi and Modigliani, 2003). These imperfections create demand for the solutions that enable the market participants to reduce their negative payments systems and instruments can be given, aiming at the reduction of the transaction costs.

1.1.2 Concept of Micro Insurance

Micro-insurance is insurance that is accessed by, or accessible to the low income population, potentially provided by a variety of different providers and managed in accordance with generally accepted insurance practices. It is the protection of low income people against specific perils in exchange for premium payments proportionate to the likelihood and cost of the risk involved. Micro-Insurance reaches a clientele that is different from that served by insurers. They have fewer assets, their incomes are lower, and their income flows often fluctuate considerably throughout the year. While the shocks that the poor experience may be

the same as conventional insurance clients, they are more vulnerable because they have fewer reserves to draw upon (Maleika and Kuriakose, 2008).

Micro-insurance is a key element in the financial services package for people at the bottom of the pyramid. The poor face more risks than the well-off, but more importantly they are more vulnerable to the same risk. Usually, the poor face two types of risks – idiosyncratic (specific to the household) and covariate (common, e.g. drought, epidemic, etc.). To combat these risks, the poor do pro-active risk management – grain storage, savings, asset accumulation (especially bullocks), loans from friends and relatives, etc. However, the prevalent forms of risk management (in kind savings, self-insurance, mutual insurance) which were appropriate earlier are no longer adequate (Pierro and Desai 2007).

Tucker (2007) report that, of the world's population, four billion people live on less than \$2 a day. Of these poor, only one to three percent has accesses to any type of insurance products. The lack of formal insurance choices does not stop these poor from attempting to mitigate risk. Tucker reports that poor urbanites spend an average of 9.2 % of their income attempting to reduce disaster risk without the advantage of insurance. Micro insurance, which protects those on the lowest incomes against a wide variety of risks, is growing fast. Morelli, Onnis, Ammann and Sutter, (2010) intimated that in Africa alone, the number of micro-insurance policies rose 80% between 2005 and 2009.

1.1.3 Concept of Performance

Performance is known as a process by which organizations align their resources, systems and employees to strategic objectives and priorities. Managing employee or system performance and aligning their objectives facilitates the effective delivery of strategic and operational goals. Some proponents argue that there is a clear and immediate correlation between using performance management programs or software and improved business and organizational

results (Zaffron, et al 2009). In the public sector, the effects of performance management systems have differed from positive to negative, suggesting that differences in the characteristics of performance management systems and the contexts into which they are implemented play an important role to the success or failure of performance management. For employee performance management, using integrated software, rather than a spreadsheet based recording system, may deliver a significant return on investment through a range of direct and indirect sales benefits, operational efficiency benefits and by unlocking the latent potential in every employees (i.e. the time they spend not actually doing their job). Benefits may include: direct financial gain, motivated workforce and improved management control (Baumol, 2007).

Productivity measurement is crucial to all sectors of the economy. ICT has adopted a more serious role in business and society. Over the years, the focus of attention has moved towards the services sector, given that in most developed countries, the contribution of this sector to GDP has increased relative to traditional goods industries such as agriculture and manufacturing. Despite this ever rising importance of services in developed nations' economies, measured productivity growth in services industries has generally been very slow compared to manufacturing,. Such findings have attracted interest amongst academics, many of whom have been concerned with testing the validity of Baumol's hypothesis of a "cost disease" in services (Baumol, 2007).

1.1.4 Insurance Industry in Kenya

The history of insurance business in Kenya dates back to the colonial days when the market was dominated by branches of foreign insurance companies operating under the Insurance Companies Act of 1960. With the enactment of a new Insurance Act in 1984, the regulatory powers for the insurance sector were bestowed upon the Ministry of Finance, functionally

under the Commissioner of Insurance. The Insurance (Amendment) Act 2006 created the Insurance Regulatory Authority (IRA), A Semi-Autonomous Government Agency (SAGA), to regulate the insurance industry in Kenya.

IRA took over the responsibilities hitherto performed by the Commissioner of Insurance, Ministry of Finance. The Insurance Act, CAP 487 is the key piece of legislation providing the legal and regulatory framework for the regulation of the insurance industry in Kenya (Gitonga, 2009).

The industry operates under an umbrella body, the Association of Kenya Insurers (AKI), which was established in 1987. Before then, it was called the Insurance Association of Eastern Africa. Membership is open to any registered insurance company. Its main objective is to promote prudent business practices, create awareness among the public and accelerate the growth of insurance business in Kenya. At the apex of the insurance sector are reinsurance companies, the quasi-public Kenya Reinsurance Corporation (Kenya Re) and East African Reinsurance Company. By 2013, short and long-term underwriters were 44, of which 37 provide medical insurance. Others are 3,788 insurance agents and 158 insurance brokers (IRA, 2013).

Currently, there are forty six (46) insurance companies under the purview of IRA, eleven (11) of which transact long term insurance business only, twenty three (23) transact general insurance business only, while twelve (12) are composites. There are three (3) reinsurance companies, one public and two others private. There are one hundred and fifty (150) insurance brokers, twenty one (21) Medical Insurance Providers (MIPs) and over four thousand (4,000) insurance agents. The total Gross Premiums Written (GPW) during the year 2013 amounted to KES.31.53 billion under long term insurance business and KES.60.43

billion under short term insurance business. In total, the GPW for the whole industry in 2013 will be KES. 91.96 billion (IRA, 2013).

Insurance industry in Kenya is faced by several challenges that make their operation in the Kenyan market not so easy. These challenges are dependent on the people, the status of the market, laws governing insurance in Kenya and the lack of proper information about insurance. Based on the international standards, the penetration of insurance in Kenya is dismal at 3% compared to Malaysia at 41% and South Africa at 9%. Despite the fact that there are numerous packages and agents of insurance in the nation, there is a big challenge of inability to deal with the uninsured people in cases of accidents or emergencies (Maina, 2013).

1.1.5 Micro Insurance Subsector in Kenya

In Kenya, 'Micro insurance' aims at addressing the existing gaps in risk management capacity of households, particularly the poor. Low income target market has been generally ignored by the traditional insurance companies and has not, for a long time, had access to appropriate insurance products (Smith and Chelwa, 2010). Micro insurance subsector aims at enabling low income earners manage risks such as accident, illness, theft, death, fire and natural disasters such as flood and drought. Micro insurance cover is provided in exchange for affordable insurance premium tailored to the needs, income and nature of risks faced by buyers. Those targeted by micro insurance include the *Jua Kali* (informal artisan) sector, farmers, farm workers and house helps among others (IRA, 2015). The informal sector in Kenya provides a source of livelihood for over 50% of the population. This sector is referred to as the 'Jua kali' (hot sun) because of the largely open-air working environment. The 'Jua kali' artisans however earn very little from this industry and more often than not live hand-to-mouth. Jua Kali is a fascinating economic phenomenon built on a complex, self-organizing community of largely informally trained mechanics, engineers and tradesmen. It was

originally set up in the 1960s by Kenyan government, based on advice from the International Labor Organization, as a low cost way of creating employing and growing GDP. Jua kali has been out of favor in national policy for several decades and has often been neglected and treated as low class, despite its important role in creating income for over 50% of Kenyans. Over the past 2 years the Kenyan government has changed its stance, recognizing Jua Kali as a valuable source of skilled labor and allocating funds to support growth in the sector.

Currently, there are 37 players providing micro insurance products such as Afya Bora by CIC and Salama Sure by UAP with Faulu Kenya offering Faulu Afya. Most of these products focus on primary risks such as Livestock and Crop, Health, Funeral and Life Insurance. Other financial institutions facilitate the development of micro-insurance through marketing, distribution as well as serving as premium collection and claims payment points. These include banks, microfinance institutions, mobile money transfer providers and Savings and Credit Co-operative Societies, (Kosgei, 2013).

Among factors driving the growth of micro insurance in Kenya is ICT namely the widespread use of mobile phones. As technology use continues to evolve in Kenya, so too is citizens' access to micro insurance. A micro insurance policy, which is distributed by the Kenyan branch of UAP Insurance in partnership with the Syngenta Foundation for Sustainable Agriculture and Kenya's largest mobile company, Safaricom, can be registered by using a camera phone to scan the barcode on each bag of seed sold (Hui, 2013).

1.2 Research Problem

ICT is growing rapidly in Kenya and in micro insurance subsector its offers platforms for storage, and transmission and processing of data (Kourik, 2011). ICT provides benefits with potential for fostering micro insurance business performance. While ICT adoption is a new technology development that can provide several advantages in micro insurance, both

strategic and operational, to its adopters, its adoption rate is not growing as fast as expected (Goscinski and Brock, 2010).

In the absence of functioning insurance low income markets, poor people have created a number of formal and informal instruments to manage such risk which offer limited protection and are prone to breakdown during emergencies (Maleika and Kuriakose, 2008). Only 3% of the Kenyan population have access to formal insurance with 97% never having taken up any insurance cover. This compares unfavourably with countries such as South Africa (9%), Malaysia (41%) and India (23%). However, given the inherent complexity of insuring the low income populace and the vulnerability of the target market, there are also risks of potential abuse, adverse selection, mis-selling and moral hazard without the use of appropriate technology. Lack of ICT would plague micro-insurance business high monitoring and administrative costs (Pierro and Desai 2007). Thus, a possible trend for efficient and sustainable provision of micro insurance may lie in the use of ICT.

Several studies have been done both globally and locally on ICT adoption and performance. However, very different, inconsistent results have been achieved up to now. While some researchers assert a positive impact of ICT use on business performance, others consider it insignificant or even assume a negative impact. Globally Srinivasan, Lilien and Rangaswamy (2002) did a study on influences of technology adoption and came up with two factors: technological-sensing capability and technological-response capability. Tan and Lin (2012), undertaking the same study, came up with: perceived relative advantage, industry pressure, and firms' technology-sensing capability. Saleem (2011) found cost reduction to be the main factor influencing ICT adoption. Locally, Kamotho (2009) carried out a study on Mobile Phone Banking usage experiences in Kenya and observed that competition triggers innovation and creativity. Mwangi (2007) argued that ICT adoption is influenced by competition and integration. Thus, while ICT adoption has been studied quite extensively,

most of them focused on measuring cost performance, with some attempting to estimate scale economies and some measure of technical progress. However, similar studies in banking and insurance sectors have been parsimonious leaving a wide knowledge gap that the study seeks to fill in. This study seeks answers to the following question, and how does ICT adoption influence the performance of micro insurance business in Kenya?

1.3 Research Objectives

The objectives of this study are to:

- i. To determine the types of ICT adopted by firms offering micro insurance products in Kenya; and,
- ii. To determine the effect of the ICT adopted on business performance of firms offering micro insurance in Kenya.

1.4 Value of the Study

Managers in insurance companies will find the study useful in developing practices that would enhance micro insurance growth. The findings will highlight the challenges faced in micro-insurance provision through traditional means and what benefits accrue from use of ICT. Implementation of the recommendations would help grow micro-insurance and will particular benefit from best practices in other countries that will be elucidated in this study.

The study will help them decide whether to venture into the business or not.

The study's findings would help realize the Government's cause of increasing access to insurance products to the poor and encourage insurance penetration through low-cost products that are appropriate to the needs of low-income consumers. Through its agencies such as Communication Authority of Kenya (CAK), Insurance Regulatory Authority (IRA) of Kenya, Association of Kenya Insurance (AKI) and other regulatory authorities in

insurance sector will find the findings useful in developing policies on micro-insurance provision and ICT. Thus, the authorities may, thus, formulate effective policies for encouraging micro-insurance.

The study may inspire prospective researchers to explore more theories and literature on how ICT has influence on micro-insurance growth and performance. As such, the study forms a basis for future research. Academicians will find this study resourceful with regards to literature and empirical review for future studies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In this chapter provides literature, theories and empirical studies on micro insurance and ICT adoption. Thus, it is structured into theoretical foundation, risk and micro insurance, ICT and its effects, and ICT adoption and performance. This useful theoretical framework will complement Diffusion of Innovation in assessing a firm's strategic management process.

2.2 Theoretical Foundation

Diffusion of Innovations (DOI) is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures. Diffusion of Innovations seeks to explain how innovations are taken up in a population. An innovation is an idea, behaviour, or object that is perceived as new by its audience. Diffusion of Innovations offers three valuable insights into the process of social change, that is: What qualities make an innovation spread successfully; the importance of peer-peer conversations and peer networks and understanding the needs of different user segments. These insights have been tested in more than 6000 research studies and field tests, so they are amongst the most reliable in the social sciences (Rogers, 2005).

Diffusion of Innovations takes a radically different approach to most other theories of change. Instead of focusing on persuading individuals to change, it sees change as being primarily about the evolution or "reinvention" of products and behaviours so they become better fits for the needs of individuals and groups. In Diffusion of Innovations it is not people who change, but the innovations themselves. Diffusion scholars recognize four qualities that determine the success of an innovation (Rogers, 2003).

Perceived Attributes of Innovations

This is the degree to which an innovation is perceived as better than the idea it supersedes by a particular group of users, measured in terms that matter to those users, like economic advantage, social prestige, convenience, or satisfaction. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption is likely to be. There are no absolute rules for what constitutes “relative advantage”. It depends on the particular perceptions and needs of the user group (Rogers, 2005).

This is the degree to which an innovation is perceived as being consistent with the values, past experiences, and needs of potential adopters. An idea that is incompatible with their values, norms or practices will not be adopted as rapidly as an innovation that is compatible.

This is the degree to which an innovation is perceived as difficult to understand and use. New ideas that are simpler to understand are adopted more rapidly than innovations that require the adopter to develop new skills and understanding. This is the degree to which an innovation can be experimented with on a limited basis. An innovation that is triable represents less uncertainty to the individual who is considering it (Rogers, 2005).

2.3 Risk and Micro-Insurance

The capacity of insurers to provide micro insurance products depends in part on risk source, correlation, frequency and intensity. Risks can be natural (e.g., natural disasters) or human-induced (e.g., economic shocks). Risks can be correlated among individuals from the same locality (i.e., covariate risk), as in the case of floods or droughts, or be uncorrelated and affect only individual households (i.e., idiosyncratic risk), as with illness or accident. Risks can be low frequency but with high economic impact (known as catastrophic risk), or high frequency with low economic impact (non-catastrophic) (Maleika and Kuriakose, 2008).

Micro insurance includes but is not limited to: life, health, and accidental death and disability, and property products. These products should be designed to meet the needs of poor clients: premium payments should be kept to a minimum, terms and conditions set clear and simple among others. Micro-Insurance institutions and instruments have developed rapidly over the last decade. The opportunities presented these linkage are enormous, creating opportunities for new products and services and transforming operations in entire organizations, sectors and economies in ways that were not perceivable a few years ago. Covariant risk is a challenge for insurers. Risks covered by insurance should affect only a relatively small portion of the total insured population at any given time. If a risk such as a flood or HIV/AIDS is likely to cause similar damage to a large portion of clients at the same time, a single occurrence of the risk would bankrupt the plan (Weiss, 2006).

2.4 Effect of ICT on Business Performance

According to Keynesian models of economic growth, the rate of accumulation is the main strategic factor and the basic parameter of regulation of long-range economic growth. Such growth is stable when savings are a stable proportion of income and capital is in stable relationship to output, creating what is known as a guaranteed rate of growth (Harrod, 1950). The key to understanding the impacts of ICT on performance is to view ICT as an enabler of innovation (Koellinger 2005).

Although measurement problems and a debate about the sustainability of ICT-enabled performance growth remain, there is now a growing consensus that ICT does have positive effects on labour- and total-factor-performance. However, the effects vary greatly between sectors. Economists have been studying ICT adoption as a central element of markets' competitive dynamics for a long time, and various scholars have stressed the importance of innovation for corporate performance, (Davis, 1997). Micro insurance products should be

simple in language and processes, including premium remittance, identification and claim settlement; they must be bundled such that a product covers a portfolio of risks; they must be leveraged on technology; and the low premiums should be commensurate with low benefits (Brau, Merrill, & Staking, 2010). Due to the low premiums, micro insurance is leveraged by the law of large numbers. Most of the products developed are meant for mass distribution as opposed to selling to individuals.

2.4.1 Information technology adoption and product performance

Product innovation is a primary means to adapt to changing markets, technologies, and competition. Innovative organizations are more profitable, grow faster, create more jobs, and are more productive than their non-innovative competitors, even in mature industries (Capon, Farley, Lehmann & Hulbert 2002; Baldwin & Da Pont 2004). The ability to generate streams of new products or services over time is therefore vital to many organizations. Organizational design plays a significant role in this ability, so understanding how to organize for innovation is a central problem in innovation management (Galbraith 2005; Tushman and O'Reilly 2004; Dougherty 2006). The most recent Product Development Management Association survey finds that organizing is the “last frontier” in innovativeness. Previous surveys found that innovative companies used more “best practices” (Stonman and Kwon, 1996), especially strategic systems (Rothwell, 2002). The Product Development Management Association survey found that the most innovative organizations used practices selectively, moulded the ones they did use to fit particular situations, and implemented them more effectively.

Moreover, innovative organizations managed the entire organization to support innovation by ensuring that resources flowed smoothly to innovation teams, that structures, processes, and other organizational mechanisms supported innovation, and that long-term investments in

supporting technologies were made (Dougherty, 2004). Micro insurance services is a mechanism to protect poor people against risk (e.g. accident, illness, death in the family, and natural disasters) in exchange for payments tailored to their needs, income, and level of risk. It is aimed primarily at the developing world's low-income workers, especially those in the informal economy who tend to be underserved by mainstream commercial and social insurance schemes (Dougherty, 2004).

Micro insurance allows policyholders to recover and rebuild after a crisis. It can mean avoiding difficult, often devastating risk coping measures such as putting children to work, eating less food, or selling productive assets. It promotes resilience and contributes to the Millennium Development Goals, including reducing hunger and child mortality, and improving maternal health. Innovation researchers have always pointed out that product innovation involves true tensions (Pelz and Andrews 2005; Lawrence and Lorsch 2007). While other tensions are also involved, research suggests that the four authors relate to innovation success (Kohler 2003). As argued in Dougherty (2004), thinking of the organizing challenges of innovation as inherent tensions emphasizes the dialectical nature of ongoing innovation, where the organization and new products mutually constitute each other.

2.4.2 Information technology adaptation and service performance

The effects of ICT on service performance are subject to debate because not all studies have demonstrated clear payoffs from ICT investments (Chan, 2000, Kohli and Devaraj, 2003). Also, the results vary depending on how service performance and ICT payoffs are measured and analyzed. For example, one empirical study finds positive impacts of ICT investments on service performance, but not on profits (Hitt and Hitt, 2006). Another study did not find positive effects of ICT capital on service performance, while ICT labor positively contributed to output and profitability (Prasad and Harker, 2007). An analysis of the profitability of ICT

investments in an empirical study that explicitly considered the competitive dynamics in a market showed that the profits of non-adopters of ICT are reduced as other firms adopt new ICT. Furthermore, the gross profit gains of ICT adoption are related to firm and industry characteristics and the number of other users of the technology (Stoneman & Kwon, 2006). Along similar lines, another study suggests that early adopters of ICT are likely to benefit, but once the technology becomes common the competitive advantage is lost (Weill, 2002).

Aghion (2005) observed that insurance business is capital intensive as it requires huge start-up costs and ICT adoption commitments, technology and a well-educated and dedicated workforce. However, the monetary stability, opportunity for investments, political and economic stable environment and a sound consistent, favourable and fair regulatory system are not available in most developing countries. Indeed, the perennial lack of interest in the informal sector to serve the poor is largely attributed to low collateral, higher transaction costs, interest rate restrictions, corruption, uncertain profitability, high risks, lack of pro-poor values and inability to serve the specific needs of the poor (Smith & Chelwa, 2010).

One of the greatest challenges for micro-insurance is the actual delivery to clients. Methods and models for doing so vary depending on the organization, institution, and provider involved. As Mordoch (2006) states, one must be thorough and careful when making policies, otherwise micro-insurance could do more harm than good. In general, there are four main models for offering micro-insurance: the partner-agent model, the provider-driven model, the full-service model, and the community-based model. Each of these models has their own advantages and disadvantages (Zeller, 2008).

A partnership is formed between the micro-insurance scheme and an agent (insurance company, microfinance institution or donor), and in some cases a third-party healthcare provider. The micro-insurance scheme is responsible for the delivery and marketing of

products to the clients, while the agent retains all responsibility for design and development. In this model, micro-insurance schemes benefit from limited risk, but are also disadvantaged in their limited control (Vijay, 2008). First is the full service model. The micro-insurance scheme is in charge of everything; both the design and delivery of products to the clients, working with external healthcare providers to provide the services. This model has the advantage of offering micro-insurance schemes full control, yet the disadvantage of higher risks. ICT services must be able to provide for the management, development and support of the infrastructure, information systems and services required by organizations.

Under the provider-driven model, the healthcare provider is the micro-insurance scheme, and similar to the full-service model, is responsible for all operations, delivery, design, and service. There is an advantage once more in the amount of control retained, yet disadvantage in the limitations on products and services (Vijay, 2008). According to the community-based model, the policyholders or clients are in charge, managing and owning the operations, and working with external healthcare providers to offer services. This model is advantageous for its ability to design and market products more easily and effectively, yet is disadvantaged by its small size and scope of operations (Brown, 2011).

Kazianga (2004) sees two key takeaways here; first the concept of stimulating savings at the bottom of the Pyramid (BoP) as hugely underestimated and commonly overlooked. The concept of saving for the future is rarely, if ever, considered and changing the paradigms of those at the BoP (Bottom of the Pyramid) key to stimulating an emergence from poverty. Second, involving the community in their ICT adoption well-being provides ownership to their future. Involving the community in what is happening to them ICT adoption is important not only from an educational perspective but from an empowerment perspective. Trust will be earned with honesty and appropriate involvement in the products that are being served to them (Tenkorang, 2001).

Aghion (2005) said that it was too early to tell just how the pay-outs from the policies will affect welfare indicators. For example, it was not clear how many herders will use the compensation to replace animals lost to the drought. But Aghion (2005) said one major success thus was that the livestock mortality index that was at the heart of the programme appeared to be working. Various factors such as competition, technological advancement, and governmental subsidies have been identified to have different effects on the growth of micro insurance. It is clear from the undertaken studies that there is a high demand of products of health insurance in many parts of the world posing impacts to the establishment and development of micro insurance. As revealed in the study by Kumar (2005), both the urban and semi-urban areas have a minimal number of respondents. Technological advancement is another factor that has been identified as impacting the growth of micro insurance.

2.4.3 Information technology adaptation and process performance

The effects of ICT on Business Performance corresponds to Keynesian models of economic growth in that the rate of accumulation is the main strategic factor and the basic parameter of regulation of long-range economic growth. The key to understanding the impacts of ICT on performance is to view ICT as an enabler of innovation (Koellinger, 2014). There is a growing consensus that ICT does have positive effects on labour- and total-factor-performance. However, the effects vary greatly between sectors. Economists have been studying ICT adoption as a central element of markets' competitive dynamics for a long time and various scholars have stressed its importance in innovation for corporate performance.

Most of the products developed are meant for mass distribution as opposed to selling to individuals. Product innovation is a primary means to adapt to changing markets, technologies and competition. Innovative organizations are most profitable, grow faster, create more jobs and are more productive than their non-innovative competitors even in

mature industries (Baldwin & Da Pont, 2004). The ability to generate streams of new products or services over time is therefore vital to many organizations.

The first thing that comes to mind when most think about service performance is the aspect of operational performance. Operational performance is how a service, any service, behaves in the IT environment. Operational behaviour includes the uptime and availability of the service as well as resource utilization and distribution of load across multiple service implementations (Morelli et al., 2010). The effects of ICT on service performance vary depending on how service performance and ICT payoffs are measured and analysed.

Process performance tools and techniques applied to enterprise environments are essential for enterprise continuous improvement. It is the reason why the next generation of process management leads to Process Performance Management or Corporate Performance Management (James and Lin, 2004). The phrase Corporate Performance Management (CPM) was coined by Gartner Group to describe the combination of process, methodologies, metrics and technologies to measure, monitor and manage the performance of the business. The choice of the process performance measures as most relevant to them. In empirical studies, the choice of the process performance is measured in terms of turnover growth.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter set out the research method that was followed in undertaking the research. It was, thus, structured into; research design, population, and data collection procedures and data analysis.

3.2 Research Design

The research design adopted was cross-sectional survey of insurance companies licensed in Kenya and this design was one of the correlational designs used to establish the relationship between two or more variables. According to Kothari (2004), in a cross-sectional study, either the entire population or a subset thereof is selected, and from these individuals, data were collected to help answer the questions of interest. This research design was applicable because the study took in to consideration the insurance companies providing micro insurance products and registered in Kenya as at 31st December 2013.

3.3 Population of the study

According to Mugenda and Mugenda (2003), population is the entire group of individuals or items under consideration in any field of inquiry and have a common attribute. The population of the study comprised all insurance companies providing micro insurance products in Kenya. Currently there are thirty five (35) companies dealing with micro insurance business in Kenya (Appendix 1) acquired from the Insurance Regulatory Authority (IRA, 2010).

3.4 Data Collection

Quantitative and Qualitative data was collected; Semi-structured questionnaires were used to collect primary data at the premises of the participant insurance firms. The questions were divided into sections, there were open ended questions followed by some probing. The study

targeted underwriter managers, ICT managers and/or heads of marketing department. They were better placed in providing required data because they played a leading role in provision of micro insurance. The target population comprised of 105 respondents with three (3) respondents from each organization.

3.5 Data Analysis

Owing to the qualitative and quantitative nature of the information sought, both descriptive and inferential analyses were used in data analysis. Descriptive analysis goes beyond merely counting words or extracting objective content from texts to examine meanings, themes and patterns that might be manifest or latent in a particular text (Zhang & Wildemuth, 2011).

Descriptive analysis was performed in order to describe the data by showing measures of central tendencies (means) and measures of dispersion (standard deviation). This was for the purpose of providing summaries concerning the population and the measurement thus describing what the data is and what it shows. Inferential analysis was done to show the nature and magnitude of relationships established using regression analysis. This was done by using computer software referred to as “statistical package for the social sciences (SPSS)” version 17.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter is a presentation of results and findings obtained from field responses and data, broken into two parts. The first section deals with the background information, while the other section presents findings of the analysis, based on the objectives of the study as explored by the questionnaires where both descriptive and inferential statistics have been employed.

4.2 Response Rate

From the data collected, out of the 105 questionnaires administered to the top level managers of the firms offering micro insurance, 93 were filled and returned. This represented 88.57% response rate, which is considered satisfactory to make conclusions for the study. According to Mugenda and Mugenda (2003) a 50% response rate is adequate, 60% good and above 70% rated very well. This also collaborates Bailey (2000) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on this assertion; the response rate which was calculated in this case was according to Mugenda and Mugenda and Bailey very good.

This high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires.

Table 4.1: Response Rate

Response rate	Frequency	Percentage
Returned Questionnaires	93	88.57%
Unreturned questionnaires	12	11.43%
Total	105	100%

Source Researcher findings; 2015

4.3 Validity Test

To establish validity, the research instrument was given to experts who were experienced to evaluate the relevance of each item in the instrument in relation to the objectives. The same were rated on the scale of 1 (very relevant) to 4 (not very relevant). Validity was determined by use of Content Validity Index (CVI). Content Validity Index was obtained by adding up the items rated 3 and 4 by the experts and dividing this sum by the total number of items in the questionnaire. A CVI of 0.833 was obtained. Oso and Onen (2009), state that a validity coefficient of at least 0.70 is acceptable as a valid research hence the adoption of the research instrument as valid for this study.

The questionnaires used had Likert scale items that were to be responded to. For reliability analysis Cronbach's alpha was calculated by application of SPSS. The value of the alpha coefficient ranges from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 4 = excellent). A higher value shows a more reliable generated scale. Cooper & Schindler (2008) indicated 0.7 to be an acceptable reliability coefficient. Since, the alpha coefficients were all greater than 0.7, a conclusion was drawn that the instruments had an acceptable reliability coefficient and were appropriate for the study.

4.4 Descriptive Statistics

4.4.1 Level of adoption of various ICT resources

The respondents were asked to Rate the level of adaptability of various ICT resources in their firms on a five point Likert scale. The range was from very high which was represented by five to not at all which was represented by 1. The variables 5 = very high; 4 = high extent; 3 = Moderate extent; 2 = Low extent; 1 = Not at all. A standard deviation of >1.5 implies a significantly small variance from mean mark of the variable among respondents.

Table 4.2: Level of adoption of various ICT resources to the performance of firms offering micro insurance

	Mean	Std. Deviation	Skewness	Kurtosis
Use of mobile phones	4.9783	1.41146	0.132	-1.126
Use of emails	4.9130	.83253	0.368	-0.98
Use of internet	4.0870	1.35344	0.134	-1.321
Micro insurance underwriting	3.5435	1.06173	0.149	-1.321
Micro insurance claims processing	4.1957	1.14728	-1.348	2.778
Micro insurance claims payment	4.1522	1.42196	0.037	-1.452

Source Researcher findings; 2015

From the study it was noted that the level of adaptability of mobile phones as an ICT resource was to a very high extent. This was indicated by the high mean values of 4.9783. The standard deviation calculated from the study indicated of 1.41146, indicated uniformity in the responses from the respondents. The study also showed that there was also very high adaptability of emails as an ICT resource in micro insurance firms. This was noted by the high mean values calculated of 4.9130. This indicated that most respondents noted that there was a very high rate of use of emails as an ICT resource in firms. The standard deviation

calculated on the use of emails also indicated uniformity in the responses from the respondents. The study also noticed that Micro insurance claims processing as an ICT resource also had a very high level of adaptability in firms. This was seen by the high mean values calculated of 4.1957. This indicated that most respondents noted that there was a high extent of adaptability of micro insurance claims processing. The standard deviation calculated from this study were all seen to be less than 1.5 which indicates a small variance from the mean mark. Micro insurance claims payment as an ICT resource was noted to have a high extent of adaptability in the firms. This was also evidenced by the high mean values calculated of 4.1522 the standard deviation calculated was 1.42196 indicated a small variance from the mean mark. From the study it was also noted that the use of the internet had a high extent of adaptability as an ICT resource in firms. This was evidenced by the mean value calculated of 4.0870 from the SPSS data analysis. The standard deviation calculated of 1.35344 from this analysis indicated a small variance from the mean mark. The study also shows that Micro insurance underwriting had a moderate extent of adaptability in firms. This was evidenced by the mean values calculated of 3.5435, the standard deviation calculated in this variable of 1.06173 indicated uniformity in the responses from the respondents.

4.4.2 Extent of Influence of ICT adoption variables on client appraisal

The respondents were asked to Rate the extent of influence of client appraisal variables on ICT adoption in their firms on a five point Likert scale. The range was from very high which was represented by five to not at all which was represented by 1. The variables 5 = very high; 4 = high extent; 3 = Moderate extent; 2 = Low extent; 1 = Not at all. A standard deviation of >1.5 implies a significantly small variance from mean mark of the variable among respondents.

Table 4.3: Influence of client appraisal variables on ICT adoption

	Mean	Std. deviation	Skewness	Kurtosis
Clients' suitability for policy is assessed through an automated system	4.9391	1.36567	0.473	-1.078
Management do not have authority to reverse an financial innovation guided decisions on appraisal	4.2391	1.15802	0.121	-1.239
ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer – KYC' details	3.3261	1.16866	-1.348	2.778

Source: Researcher findings; 2015

From the study it was noted that most respondents noted that there was a very high extent of Clients' suitability for policy which is assessed through an automated system. This was proved true by the high mean value calculated in the SPSS analysis of 4.9391. The Standard deviation calculated in this analysis of 1.36567 indicated that there was a very small variation in the responses from the respondents. The study also showed that there was a high acceptance that the Management do not have authority to reverse a financial innovation guided decisions on appraisal in micro insurance firms. This was noted to be so by the high mean values calculated from the responses of the respondents of 4.2391. This indicated that most respondents believed that the management don't have an authority to reverse a financial innovation guided by decisions. The standard deviation calculated on the statement of .15802 indicated uniformity in the responses of the respondents. The study also noticed that ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer – KYC' details. This was observed true by the high mean values calculated of 4.1957. This indicated that most respondents noted that there was a high extent of capturing of clients details beyond the basic know your customer details. The standard deviation

calculated from this study were all seen to be less than 1.5 which indicates a small variance from the mean mark.

4.4.3 Extent of influence of product development in relation to ICT adoption

The respondents were asked to Rate the level of influence of product development in relation to ICT adoption in the micro insurance firms on a five point Likert scale. The range was from very high which was represented by five to not at all which was represented by 1. The variables 5 = very high; 4 = high extent; 3 = Moderate extent; 2 = Low extent; 1 = Not at all. A standard deviation of >1.5 implies a significantly small variance from mean mark of the variable among respondents.

Table 4.4: Influence of product development in relation to ICT adoption

	Mean	Std. deviation	Skewness	Kurtosis
financial innovation has enabled more differentiated products that are more client friendly	3.8261	1.22572	0.134	-1.116
Our system supports prompt updates on new products employed by our competitors hence design new products	4.0652	1.33020	0.468	-0.981
The system is flexible enough to accommodate new micro insurance products effectively	4.0217	1.57289	0.131	-1.301

Source: Research findings; 2015

From the study it was noted that there was a high extent agreement on the statement; our system supports prompt updates on new products employed by our competitors hence design new products. This was indicated by the high mean values of 4.0217. The standard deviation calculated from the study indicated of 1.57289, indicated uniformity in the responses from the respondents. The study also showed that there was also very high extent of agreement from the respondents on the statement; the system is flexible enough to accommodate new

micro insurance products effectively. This was noted by the high mean values calculated of 4.0217. The standard deviation calculated on the statement also indicated uniformity in the responses from the respondents. Lastly, the study noticed there was a high extent of agreement on the statement; financial innovation has enabled more differentiated products that are more clients friendly. This was confirmed by the mean values calculated of 3.8261. This indicated that in most micro insurance firms in Kenya, the financial innovations made with regard to ICT have enabled differentiated products that are more client friendly. The standard deviation calculated from this study were all seen to be less than 1.5 which indicates a small variance from the mean mark

4.4.4 Extent of influence of Staff performance on ICT adoption

The respondents were asked to Rate Extent of influence of Staff performance on ICT adoption in the micro insurance firms on a five point Likert scale. The range was from very high which was represented by five to not at all which was represented by 1. The variables 5 = very high; 4 = high extent; 3 = Moderate extent; 2 = Low extent; 1 = Not at all. A standard deviation of >1.5 implies a significantly small variance from mean mark of the variable among respondents.

Table 4.5: Influence of Staff performance on ICT adoption

	Mean	Std. deviation	Skewness	Kurtosis
Processing of claims by staff is more efficient than when manual system was being used.	4.0652	1.33020	0.468	-0.981
Accuracy is more enhanced as compared to prior period when the system was manual	4.0217	1.47289	0.131	-1.301
Employees feel motivated by the ICT adoption hence perform better	4.0870	1.21076	0.142	-1.021
The system is completely user friendly	4.5217	1.43022	-1.354	2.228

Source: Researcher findings; 2015

From the study it was noted that there was a high extent agreement on the statement the system is completely user friendly. This indicated that most respondents to a very high extent agreed that the ICT systems incorporated in their micro finance firms were completely user friendly. This was indicated by the high mean values of 4.5217 calculated in the SPSS data analysis. The standard deviation calculated from the study indicated of 1.43022, indicated uniformity in the responses from the respondents. The study also showed that there was also very high extent of agreement from the respondents on the statement; Employees feel motivated by the ICT adoption hence perform better. This was evidenced by the high mean values calculated of 4.0870. The standard deviation calculated on the statement indicated uniformity in the responses from the respondents. The study also noticed that there was a high extent of agreement on the statement; Accuracy is more enhanced as compared to prior period when the system was manual. This was noted by the mean values calculated of 4.0217. This indicated that incorporation of ICT systems in micro insurance firms have enhanced accuracy in contrast to periods where manual systems were in play. The standard deviation calculated from this statement of 1.47289 indicated that there was uniformity in the responses from the respondents. The study also noticed that the processing of claims by staff

is more efficient than when manual system was being used. This was observed true by the high mean values calculated of 4.0652. The standard deviation calculated from this study were all seen to be less than 1.5 which indicates a small variance from the mean mark.

4.4.5 Extent of influence of the process in relation to ICT adoption

The respondents were asked to Rate the level of influence of product development in relation to ICT adoption in the micro insurance firms on a five point Likert scale. The range was from very high which was represented by five to not at all which was represented by 1. The variables 5 = very high; 4 = high extent; 3 = Moderate extent; 2 = Low extent; 1 = Not at all. A standard deviation of >1.5 implies a significantly small variance from mean mark of the variable among respondents.

Table 4.6: Extent of influence of the process in relation to ICT adoption

	Mean	Std. deviation	Skewness	Kurtosis
Automation of claim management and underwriting has reduced the cost of default analysis and submission	3.8261	1.22572	0.134	-1.116
ICT adoption has made gathering of evidence in the case of fraudulent claims	4.0652	1.33020	0.468	-0.981

Source: Research findings; 2015

From the study it was noted that there was a high extent agreement on the statement; ICT adoption has made gathering of evidence in the case of fraudulent claims. This was indicated by the high mean values of 4.0652. The standard deviation calculated from the study indicated of 1.33020, indicated uniformity in the responses from the respondents. The study also showed that there was also very high extent of agreement from the respondents on the statement; Automation of claim management and underwriting has reduced the cost of default analysis and submission. This was noted by the high mean values calculated of 3.8261. The

standard deviation calculated of 1.22572 on the statement indicated uniformity in the responses from the respondents.

4.5 Chi Square analysis

4.5.1: Relationships between client appraisal and ICT adoption in the firms offering micro insurance

The study sought to determine the relationships between client appraisal and ICT adoption in the firms offering micro insurance. A Chi Square test was conducted to assess the effects of Trauma against understanding of the phenomenon. Table 4.7 below presents the findings.

Table 4.7: Chi Square Test: Of the Relationship between client appraisal and ICT adoption in the firms offering micro insurance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.03522	5	0.0001
Likelihood Ratio	17.46032	5	0.0000
Linear-by-Linear Association	0.03521	1	0.0418
N of Valid Cases	31		

Source: Researcher findings; 2015

A 3 cells (25.0%) have expected count less than 5. The minimum expected count is 3.45. A p-value of 0.0001 shows a strong, significant, positive relationship between client appraisal and ICT adoption in firms. Therefore basing on these findings the study deduces that there exists a strong positive relationship between client appraisal and ICT adoption in firms offering micro insurance in Kenya.

4.5.2 Relationship between staff performance and ICT adoption in firms offering micro insurance

The study sought to determine the relationship between staff performance and ICT adoption in firms offering micro insurance. A Chi Square test was conducted to assess the effects of Of staff performance against ICT adoption in firms offering micro insurance. Table 4.8 below presents the findings

Table 4.8: Chi Square Test: Of staff performance and ICT adoption in firms offering micro insurance.

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.61445	9	0.0002
Likelihood Ratio	36.34022	9	0.0000
Linear-by-Linear Association	9.717855	1	0.0018
N of Valid Cases	582		

Source: Researcher findings; 2015

A p-value of 0.0002 shows a strong, significant, positive relationship between staff performance and ICT adoption in firms offering micro insurance. Therefore basing our conclusion on this study, it is accurate to agree that there exists a strong positive relationship between the staff performance and ICT adoption in firms.

4.5.3 Relations between product development and ICT adoption in firms offering micro insurance in Kenya.

Table 4.9: Chi Square Test: Of between product development and ICT adoption in firms offering micro insurance in Kenya

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.17292	2	0.0002
Likelihood Ratio	20.07018	2	0.0000
Linear-by-Linear Association	15.34876	1	0.0001
N of Valid Cases	385		

Source: Researcher findings; 2015

In the analysis of the chi square test it's noticed that chi square has a p-value of 0.0002. A p-value of 0.0002 shows a strong, significant, positive relationship between product development and ICT adoption in microfinance firms in Kenya. We can therefore deduce that there exists a relationship between product development and ICT adoption in microfinance firms in Kenya. Therefore product development is significantly influenced by the level of ICT adoption in firms offering micro insurance.

4.5.4 Relations between the firms' processes and ICT adoption in firms offering micro insurance.

Table 4.10: Chi square test; of the firms' processes and ICT adoption in firms offering micro insurance.

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.90461	9	0.00025
Likelihood Ratio	32.29772	9	0.0002
Linear-by-Linear Association	2.40228	1	0.000124
N of Valid Cases	609		

Source: Researcher findings; 2015

A 3 cells (25.0%) have expected count less than 5. The minimum expected count is 3.69. From the study, it was noted that the Pearson chi-square value was 0.00025. a p-value of 0.00025 indicates a strong, significant, positive relationship between the firms' processes and ICT adoption of firms offering micro insurance. This concludes that the processes of the firms are significantly determined by the level of ICT adoption in firms offering micro insurance.

4.5.5. Relations between ICT adoption and the performance of firms offering micro insurance in Kenya

Table 4.11: Chi square test; of ICT adoption and the performance of firms offering micro insurance in Kenya

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.03522	5	0.0001
Likelihood Ratio	17.46032	5	0.0000
Linear-by-Linear Association	0.03521	1	0.0418
N of Valid Cases	162		

Source: Researcher findings; 2015

A 3 cells (25.0%) have expected count less than 5. The minimum expected count is 3.45.

In this analysis of the Chi square test, the p value was noted to be 0.0001. A p value of 0.0001 indicates significant, positive and strong relationship between the established variables. This was mainly ICT adoption and the performance of firms offering micro insurance in Kenya. This can enable us to deduce that the performance of firms offering micro insurance is greatly influenced by the level of adoption of ICT in the company.

4.6 Summary of the findings

The study findings revealed that there was a very high adaptability of emails as an ICT resource in micro insurance firms. The use of emails as an ICT resource in firms was very high and it indicated uniformity in the responses from the respondents. Micro insurance claims processing as an ICT resource at a high level of adaptability in firms. Micro insurance claims payment as an ICT resource was noted to have a high extent of adaptability in the firms. There is a very high extent of clients' suitability for policy which is assessed through an automated system. There was a high acceptance that the Management do not have authority to reverse a financial innovation guided decisions on appraisal in micro insurance firms. Management does not have an authority to reverse a financial innovation guided by

decisions. ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer KYC' details. ICT system is flexible enough to accommodate new micro insurance products effectively. ICT systems incorporated in their micro finance firms are completely user friendly and that the employees feel motivated by the ICT adoption hence perform better. ICT adoption has made gathering of evidence in the case of fraudulent claims and the automation of claim management and underwriting has reduced the cost of default analysis and submission.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is a synthesis of the entire study, and contains summary of research findings, exposition of the findings, commensurate with the objectives, conclusions and recommendations based thereon.

5.2 Summary of Findings

From the findings it was noted that the level of adaptability of mobile phones as an ICT resource was to a very high extent. This was indicated by the high mean values of 4.9783. The standard deviation calculated from the study of 1.41146, indicated uniformity in the responses from the respondents. It was noted to be the case for most of the variables relating to the level of adaptability of the ICT resources. This indicated therefore that in the firms offering micro insurance, there were different levels of adaptability of different ICT resources. Some were noted to be more adaptable than others.

From the findings it was also noted that most respondents noted that there was a very high extent of Clients' suitability for policy which is assessed through an automated system. This was proved true by the high mean value calculated in the SPSS analysis of 4.9391. The Standard deviation calculated in this analysis of 1.36567 indicated that there was a very small variation in the responses from the respondents. It was noted from the findings, high mean values were calculated for most statements relating to client appraisal influence on ICT adoption. From this it was clear those clients appraisal in the firms offering micro insurance was significantly influenced by the adoption of ICT in firms offering micro insurance in Kenya.

The study sought to determine the influence of product development in relation to ICT adoption in firms on a five point Likert scale. From the study it was noted that there was a

high extent agreement on the statement; our system supports prompt updates on new products employed by our competitors hence design new products. This was indicated by the high mean values of 4.0217. The standard deviation calculated from the study indicated of 1.57289, indicated uniformity in the responses from the respondents. It was generally noted that product development in firms offering micro insurance was significantly influenced by the adoption of ICT in the firms.

The study also sought to determine the influence of ICT adoption on the performance of the staff in firms offering micro insurance in Kenya. From the study it was noted that there was a high extent agreement on the statement the system is completely user friendly. This indicated that most respondents to a very high extent agreed that the ICT systems incorporated in their micro finance firms were completely user friendly. This was indicated by the high mean values of 4.5217 calculated in the SPSS data analysis. The standard deviation calculated from the study indicated of 1.43022, indicated uniformity in the responses from the respondents. It was noted similar for most statement relating to staff performance in reference to the adoption of ICT systems in firms offering micro insurance. The adoptions of ICT in firms offering micro insurance were therefore noted to significantly influence the level of performance of the staff in the firms.

The study also sought to determine the effect of ICT adoption on the processes in firms offering micro insurance in Kenya. From the findings, it was noted that majority of the respondents. The study noted that there was a high extent agreement on the statement; ICT adoption has made gathering of evidence in the case of fraudulent claims. This was indicated by the high mean values of 4.0652. The standard deviation calculated from the study indicated of 1.33020, indicated uniformity in the responses from the respondents. This was noted to be the trend in most of the statement relating to the relationship between ICT adoption and processes in the firms. From these findings it was clear that the processes in the

firms offering micro insurance were significantly influenced by the level of ICT adoption in the firms.

In the chi square analysis, a strong, positive and significant relationship was noted between client appraisal, staff performance, product development, firms' processes, and ICT adoption in the firms offering micro insurance in Kenya. This was noted by the p-values calculated of 0.0001, 0.0002, 0.0002 and 0.00025 respectively. The study also sought to determine the effect of ICT adoption on the performance of firms offering micro insurance in Kenya. A p-value of and 0.0001 was calculated in the chi square analysis which therefore indicated a strong, positive and significant relation between ICT adoption and the performance of firms offering micro insurance in Kenya.

5.3 Conclusion

From the findings the study concludes that ICT adoption is very crucial for the performance of firms offering micro insurance in Kenya. The study also concludes that the variables client appraisal, staff performance product development and firms' processes was significantly influenced by the adoption of ICT in firms offers micro insurance.

Based on the findings on client appraisal, the study concludes that ICT adoption in the firms has a significant effect on the client's appraisal. It was further revealed that ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer – KYC' details.

Further, the study concludes that ICT adoption in firms offering micro insurance has a direct influence on the performance of staff. The study further concludes that the Processing of claims by staff is more efficient while using ICT systems than when manual system was being used.

5.4 Limitations of the study

The study relied on both secondary data and questionnaires for the analysis. Some of the respondents were not willing to provide full information on the effects of ICT adoption in the performance of firms offering micro insurance in Kenya. Therefore the result of the findings based on the data might not give true result. Time was also noted to be a hindrance to acquiring all the relevant data relating to the study. The time available to investigate the research problem and to measure change or stability within the sample was constrained by the due date of the study. More time would have been preferred for the study so as to get a comprehensive analysis of the influence of ICT adoption on performance by firms offering micro insurance businesses in Kenya

5.5 Recommendations

The study recommends, improved ICT in the firms offering micro insurance in Kenya. Kenyan insurance companies have found it easy and cost effective to establish within the EAC member states. With improved access to mobile phones, improved connectivity, satellite communication and e-mail, insurance companies are able to engage professionals like accountants and lawyers to offer services. It is worth noting that there is East Africa Science and Technology Commission charged with the responsibility of developing technology in the region. This will assist in developing technology and by extension enable client appraisal, staff performance, product development and processes of the firms.

5.6 Suggestions for further studies

The study looked into the influence of ICT adoption on performance of Micro-insurance business in Kenya and an analysis of the empirical study has indicated a number of relevant issues that the research project did not investigate. This research focused mainly on the influence of ICT adoption in the performance of firms offering micro insurance in Kenya. As more insurers appreciate the profitability of micro insurance, it would be important to

document their achievements through research projects. The findings from such studies play a critical role in enhancing development of appropriate policies and structures on micro insurance in the country. The study suggest that research on the factors affecting ICT adoption on performance of micro insurance business would be investigated by future researchers to establish a deeper understanding on the influence of ICT adoption on performance of micro insurance business in Kenya and other regions in Africa and internationally.

REFERENCES

- Aghion, M. (2005). Information Technology and Corporate Strategy. *MIS Quarterly*, Vol. 1 No.1 pp. 107-119
- Ansoff, H. (1965) *Corporate Strategy*. New York: McGraw Hill.
- Applegate, L., McFarlan, F. and McKenney, J.L. (1999). *Corporate information systems management*. Boston: McGraw-Hill.
- Baldwin, J. & M. Dapont (2004) Innovation in Canadian Enterprises: Survey of Innovation and Advanced Technology, *Statistics Canada*, 88, 513-XPB.
- Baumol, J. (2007) Managing Strategic Change. *Sloan Management Review*. Vol. 21 No. 4 pp. 3-17.
- Brau,D.,Merril,P. and Staking,H.(2010). *Better health Systems for India's Poor:Findings, Analysis,and Options*.
- Brown, W.(2011). *Providing Insurance to low –Income Households, part I:Primer on Insurance Principles and Products*,November 2011.
- Capon, N, J. Farley, D. Lehmann, & J. Hulbert (1992) profiles of Product Innovators among Large US Manufacturers. *Management Science*, 38(2), 157-169.
- Chan, J. (2000) “Organizational Learning Activities in High-Hazard Industries: The Logics Underlying Self-Analysis,” *Journal of Management Studies*.
- Churchill, W. (2002). *Prospects and Perils of Micro-insurance: Four Questions MFIs Should*
- Daley, H. (2003). *State of the Microcredit Summit Campaign Report 2003*. Washington:
- Davis, H. (1997). *State of the Microcredit Summit Campaign Report 2003*. Washington:
- Dougherty, D. (2001). Re-imagining the differentiation and integration of work for sustained product innovation. *Organization Science*. 12, 5, 612-631.

- Dougherty, D. (2004). Organizing Practice in Services to Capture Knowledge for Innovation, *Strategic Organization*, 2:1, 35-64.
- Fishbein Y & Ajzen A, profiles of Product Innovators among Large US Manufacturers. *Management Science*, 38(2), 157-169.
- Fabozzi, Frank & Modigliani, F.P (2003) *Capital Market: Institution and Instruments* 3rd (third) Edition
- Galbraith, J. (2005) *Designing Organizations*; San Francisco: Jossey-Bass.
- Gitonga, N.R. (2009). *The long and short of Private Health Insurance (PHI) in Kenya*. The Kenya Insurer, July
- Goscinski, M.J., & Brock, J. (2006). Microinsurance Note 1: What is Microinsurance? *Publication Produced for U.S. Agency for International Development*, Washington, DC, pp 2-3.
- Graham, N. (2007) Strategic Alignment: Leveraging Information technology for Transforming Organizations. *IBM Systems Journal*. Vol. 32 No. 1 pp 4-16
- Harrod, C. (2001). *Viewing Insurance as a Social Risk*
- Hitt, R. and Hitt, K. (2006). Architectural Innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*, 35:9-30.
- Hui, K. (2013) Organizational Learning Activities in High-Hazard Industries: The Logics Underlying Self-Analysis,” *Journal of Management Studies*.
- Ittner, Y., & Iansiti, M. (1993) Real world R&D: *Jumping the product generation gap*,” *Harvard Business Review*, May-June, 138-147.
- IRA 2015 ICT Adoption, Competition and Integration in Kenya: A Case Study. *Management Review Journal*, Vol. 29 No. 3 pp. 19-30.
- James and Short, K. Jin (2004)) IT in the 1990s: Managing Organizational Interdependence. *Sloan Management Review*. Vol. 15 No. 2 pp. 7-17.

- Kahneman W. (1979) *Strategy in Action: The Execution, Politics and Payoff of Business Planning*. New York: Free Press.
- Kahneman, D. (1979). Consumption Smoothing? Livestock, Insurance and Drought in Rural Burkina Faso. *Journal of Development Economics*, 7(898), 1-45.
- Kamotho, J. P. (2009). *Mobile Phone banking usage experiences in Kenya: A problem-solving approach*. Unpublished MBA Project, University of Nairobi.
- Kariuki, N. (2015). Health Micro insurance: East African Experience. *Insight Health Advisors' Journal*, 8(May): 4-5.
- Kazianga, H. (2004). Consumption Smoothing? Livestock, Insurance and Drought in Rural Burkina Faso. *Journal of Development Economics*, 7(898), 1-45
- Kosgei, H (2013) Sticky information and the locus of problem solving: Implications for innovation. *Journal of Management Science*, 40:429-39.
- Koellinger, S. (2014). *The Micro-insurance Revolution: Sustainable Finance for the Poor*.
- Kohler, T. (2003). *Logistics Innovation Management: Evidence from Two Longitudinal Studies* (DBA project, Cranfield U).
- Kohli, A. & Devaraj, S. (2003). Integrating the fuzzy front end of new product development, *Sloan Management Review*
- Kourik, C.J. (2011). *Government Support to Agricultural Insurance*. Washington, DC: The World Bank.
- Kothari, C, R. (2004) *Research Methodology, Methods &Technology*: New age International (p) Ltd. New Delhi
- Kumar (2005). "The Role of Information in Technology Adoption: The Case of rbST in the California Dairy Industry." *Review of Agricultural Economics*, 17, 287-298.
- Lawrence, P. and J. Lorsch (2007) *Organization and Environment*, Boston: Harvard School of Business Administration Press.
- Lehmann, D., & Hulbert, A. (1992) *Well-Springs of Knowledge: Building and Sustaining the Sources of Innovation 2nd ed*, Boston: Harvard Business School Press.

- Maina, J. (2013). Reducing Vulnerability: The Demand for Micro-Insurance *Journal of International Development*, 17, 397–474.
- Majul, A., & Ghesquiere, L. (2000). *Advanced Information and Communication Technology*. Oxford: Heinemann Educational Publishers.
- Makove, S.M. (2011). *African Policy Approaches: Micro insurance in Kenya*. AIO – A2ii Regulators’ Workshop, Victoria Falls, Zimbabwe May 26, 2011.
- Maleika, M., & Kuriakose (2008). *Rural Finance and Poverty Alleviation, Food Policy Report*, International Food Policy Research Institute, Washington, DC.
- Maleika, M., & Kuriakose, A.T. (2008). Microinsurance: Extending Pro-Poor Risk Management through the Social Fund Platform. *The World Bank*, 5(2): 45-54.
- March, M. & Sutton, R. (1997). The art of high technology management. *Sloan Management Review*, 24:18-31.
- McCord, K. (2006). *Barriers to Household Risk Management: Evidence from India*. Delhi University
- McCord, P., & Rivers, U. (2007). The appropriate role of agricultural insurance in developing countries. *Journal of International Development* 4: 567-581.
- Mordoch, C. (2006). "Micro-insurance: Extending Health Insurance to the Excluded". *International Social Security Review* (Geneva: ISSA) 52 (1): 71–97.
- Morelli, E., Onnis, G.A., Ammann, W.J., & Sutter, C. (2010). *Micro insurance: An Innovative Tool for Risk and Disaster Management*. Switzerland: Buchdruckerei Davos AG.
- Mugenda and Mugenda (2003) *Research Methods, Qualitative and Quantitative Approach*.
- Mwangi, V. (2007) ICT Adoption, Competition and Integration in Kenya: A Case Study. *Management Review Journal*, Vol. 29 No. 3 pp. 19-30.
- Nystrom, P., & W. Starbuck (1981). *Handbook of Organization Design*. Oxford U Press.
- Pelz, D., & F. Andrews (1966). *Scientists in Organizations*. Wiley.

- Pierro, R., & Desai, B. (2007) *Micro-insurance and DRR: Challenges and Opportunities in the Context of Climate Change*. London: Christian Aid Publication.
- Prasad, N., & Harker, D. (2006). *Inside the Black Box: Technology and Economics*. Cambridge: Cambridge University Press
- Rockart, D. (1988) Changing Frames: Understanding Technological Change in Organizations. *Centre for Information Systems Research working paper*: Massachusetts Institute of Technology.
- Rogers, E.M. (2005). *Diffusion of innovation*. New York: The Free Press.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Roth, W., McCord, Y., & Liber, D. (2007). *Providing Insurance to Low-Income Households*. Part I: Primer on Insurance Principles and Products, November 2007.
- Rothwell, N. (2002) *Inside the Black Box: Technology and Economics*. Cambridge: Cambridge University Press
- Saleem, F. W. (2011). Portfolio Approach to Information Systems. *Harvard Business Review*. Vol. 10 No. 1 pp 11-39.
- Smith W. and Chelwa H. (2010). *Measuring the Intangible Benefits of Computer-Based*
- Srinivasan, W., Lilien, S., & Rangaswamy, R. (2002) Information Technology: When is it Worth the Investment? *Communications of the IIMA*. Vol. 7 No.3 pp 119-122.
- Stewart, A. (2008). *The Unorganized Sector: Work Security and Social Protection*, Sage Publications, Delhi
- Stewart, W., Coulson, S. and Wilson, R. (2007) Information Technology: When is it Worth the Investment? *Communications of the IIMA*. Vol. 7 No.3 pp 119-122.
- Stonman, P. and Kwon, M.J. (2006). *Technology Adoption and Firm Profitability*. *The Economic Journal*, Vol. 106
- Stroeken, Jan H.M. (2001). The Adoption of IT by SMEs: the Dutch case. *Journal of Enterprise Culture*, 9(1)129-152

- Sullivan-Trainor, M. L. (1990-91). End of IS budgets as we know them? *Computerworld*, Vol. 24 No. 15 pp.52-53.
- Tan, R. J., and Lin, J. C. (2012). If IT's Worth More Than it Costs, Buy it! *Journal of Information Systems Management*. Vol.4 No 3 pp. 85-89.
- Tenkorang, D. (2001). *Health Insurance for the Informal Sector in Africa: Design*. Cambridge University Press
- Tucker, D. (2007). World insurance in 2006. Premiums came back to "life". *Sigma*, April, 23-45.
- Tushman, M. and C. O'Reilly (1997) *Winning Through Innovation*, Boston: Harvard Business School Press.
- Vijay, K. (2008). *Barriers to Household Risk Management: Evidence from India, Delhi*.
- Watteville, G. & Gilbert, V. (2000). Incorporation of intangibles in computer selection decisions. *Journal of Systems Management*. Vol. 33 No.1 1 pp. 30-36.
- Weill, E. (2002) Sticky information and the locus of problem solving: Implications for innovation. *Journal of Management Science*, 40:429-39.
- Weiss, J. (2006). *Barriers to Household Risk Management: Evidence from India, Delhi University*
- Zaffron, M., Logan, C., Steve, G., & David, A. (2009). Information technology as Competitive Advantage: The role of Human, Business and Technology Resources. *Strategic Management Journal*. Vol. 18 No. 5 pp 375-405.
- Zeller C. (2008). *Protecting the Poor: A Microinsurance Compendium*. Geneva: ILO.
- Zhang, Y. & Wildemuth, B.M. (2011) *Qualitative analysis of content: Sunilagni*. Cambridge University Press

APPENDICES

Appendix I- List of insurance companies transacting Micro Insurance as at 31-12- 2013

1. Africa Merchant Assurance Company Limited
2. Apollo Life Assurance Limited
3. British-American Insurance Company (K) Limited
4. Canon Assurance Limited
5. CFC Life Assurance Limited
6. CIC Insurance Group Limited
7. Concord Insurance Company Limited
8. Corporate Insurance Company Limited
9. East Africa Reinsurance Company Limited
10. Fidelity Shield Insurance Company Limited
11. First Assurance Company Limited
12. GA Insurance Limited,
13. Gateway Insurance Company Limited
14. Geminia Insurance Company Limited
15. ICEA LION General Insurance Company Limited
16. ICEA LION Life Assurance Company Limited
17. Intra Africa Assurance Company Limited
18. Kenindia Assurance Company Limited
19. Kenya Orient Insurance Limited
20. Kenya Reinsurance Corporation Limited
21. Madison Insurance Company Kenya Limited
22. Mercantile Insurance Company Limited
23. Occidental Insurance Company Limited,
24. Old Mutual Life Assurance Company Limited
25. Pan Africa Life Assurance Limited
26. Phoenix of East Africa Assurance Company Limited
27. Pioneer Assurance Company Limited
28. Real Insurance Company Limited
29. Tausi Assurance Company Limited
30. The Heritage Insurance Company Limited,
31. The Jubilee Insurance Company of Kenya Limited
32. The Kenyan Alliance Insurance Co Ltd
33. The Monarch Insurance Company Limited
34. Trident Insurance Company Limited
35. UAP Insurance Company Limited

Source: Insurance Regulatory Authority (IRA) (2013)

APPENDICES

APPENDICE II COVER LETTER

Dawn J. Witherspoon
P.O. Box 30197-00100
Nairobi, Kenya

To the respondent

RE: RESEARCH SURVEY QUESTIONNAIRE

I am a Master of Business Administration Degree student, and part of the requirement for the award of the degree is to carry out a management research in an area of interest relevant to your major discipline. This is what I wish to accomplish with this questionnaire and you have been identified to participate in the survey.

Kindly complete the attached questionnaire which will be picked as soon as you finish the exercise.

Please also note that information obtained will be treated confidentially and will be only used for purposes of this study.

Thank you for your precious time.

Dawn Juwealah Witherspoon

Appendix III: Questionnaire

PART A: GENERAL INFORMATION

1. Name of the Institution: _____
2. How many branches does your Institution have in Kenya?
3. What Micro Insurance production does your organization deal with?
.....
4. For what products and services do you use ICT?
5. Do you consider your Institution to be ICT adaptive with respect to any of the following categories? (Tick all that applies)

ICT Adoption	Not at all	Low Extent	Moderate Extent	High Extent	Very High Extent
Use of mobile phones					
Use of emails					
Use of internet					
Others-please specify					

6. Do you consider your institution to be ICT adaptive when it comes to the following categories?
(Tick all that applies)

	Not at all	Low Extent	Moderate Extent	High Extent	Very High Extent
ICT Adoption					
Micro insurance underwriting					
Micro insurance claims Processing					
Micro insurance claims payment					
Insured product supervision/monitoring					
Others-please specify					

7. If yes to (6) above, what product or services and how many?

.....

8. With respect to credit (loan) Insurance has your Institution experienced any late repayment problems arising from the new loan products in the last 48 months?

Yes [] No []

9. What factors could you attribute to the late repayment problems?

.....

9. In your own experience, what percentage of the total loan portfolio is derived from products newly introduced into the market by your institution?

.....

10) For Part B, C, D and E, estimate to what extent the following statements relate to various kinds of ICT adoption apply to your Institution. Please tick one choice for each of the following statements. (1= Not at all; 2=Less extent; 3= Moderate extent; 4= Large extent; 5= Very large extent; X = do not know)

PART B: CLIENT APPRAISAL

Factor	1	2	3	4	5	X
a) Clients' suitability for policy is assessed through an automated system						
b) Management do not have authority to reverse an financial innovation guided decisions on appraisal						
c) ICT adoption has enhanced more client details to be captured beyond the basic 'know your customer – KYC' details						

PART C: PRODUCT DEVELOPMENT

Factors	1	2	3	4	5	X
a) financial innovation has enabled more differentiated products that are more client friendly						
b) Our system supports prompt updates on new products employed by our competitors hence design new products						
c) The system is flexible enough to accommodate new micro insurance products effectively						

PART D: STAFF PERFORMANCE

Factors	1	2	3	4	5	X
a) Processing of claims by staff is more efficient than when manual system was being used.						
b) Accuracy is more enhanced as compared to prior period when the system was manual						
c) Employees feel motivated by the ICT adoption hence perform better						
d) The system is completely user friendly						

PART E: PROCESSES

Factor	1	2	3	4	5	X
a) Automation of claim management and underwriting has reduced the cost of default analysis and submission						
b) ICT adoption has assisted in gathering evidence in the case of fraudulent claims						

PART F: ICT ADOPTION AND BUSINESS PERFORMANCE

1.

Risk Management Practices	1	2	3	4	5
Constant monitoring of clients risk profile					
Control of moral hazards by denying claims to self-inflicted or aggravated losses					
Conducting constant Micro-Insurance price reviews/revision					
Using technology (Mpesa premium payment etc) to minimize Micro-Insurance administration cost					
Mitigating against adverse selection by excluding areas/clients of high risks probability					
Conducting continuous monitoring of Micro-Insurance claims					
Development of risk measurement models/methods for Micro-Insurance products and during underwriting of such					
Using actuarial services to perform risk analysis of new products before releasing it to the market					
Giving clients a flexible premium payment terms to avoid non-payment					
Partnering with other companies to risks, hence, micro-insurance cost					
Conducting campaigns on insurance to boost public awareness/confidence, thus, raise penetration					
Reinsuring Micro-Insurance products					

2. Please state what need to be done to enhance ICT contribution in the performance of micro insurance business.

.....

.....

.....

.....

THANK YOU FOR YOUR PARTICIPATION