

**EFFECT OF PRODUCT DIVERSIFICATION ON FINANCIAL PERFORMANCE  
OF INSURANCE FIRMS IN KENYA**

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OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF  
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NAIROBI**

**DECLARATION**

I hereby declare that this project is my original work and has never been submitted to any other university or institution of learning for a degree or any other award.

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This Research proposal has been submitted for examination with my approval as the University Supervisor.

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## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>i</b>
<b>TABLE OF CONTENTS</b> .....	<b>ii</b>
<b>LIST OF FIGURES</b> .....	<b>iv</b>
<b>LIST OF TABLES</b> .....	<b>v</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>vi</b>
<b>DEDICATION</b> .....	<b>vii</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the Study.....	1
1.1.1 Product Diversification.....	2
1.1.2 Financial Performance.....	3
1.1.3 Relationship Between Product Diversification and Financial Performance in the Insurance Sector.....	4
1.1.4 Insurance Sector in Kenya.....	5
1.2 Research Problem.....	6
1.3 Objective of the Study .....	7
1.4 Value of the Study .....	7
<b>CHAPTER TWO</b> .....	<b>9</b>
<b>LITERATURE REVIEW</b> .....	<b>9</b>
2.1 Introduction .....	9
2.2 Theoretical Framework.....	9
2.2.1 Resource-Based Theory.....	9
2.2.2 Portfolio Theory .....	10
2.3 Determinants of Insurance Firm’s Performance.....	11
2.3.1 Micro Insurance Product Diversification and Performance of Insurance Firms ....	11
2.3.2 Relationship Between Digital Insurance and Performance of Insurance Firms .....	12
2.3.3 Banc Assurance and Financial Performance in Insurance Industry.....	14
2.4 Empirical Studies.....	16
2.5 Summary of Literature and Knowledge Gap .....	17
2.6 Conceptual Framework.....	18
<b>CHAPTER THREE</b> .....	<b>19</b>
<b>RESEARCH METHODOLOGY</b> .....	<b>19</b>
<b>3.1 Introduction</b> .....	<b>19</b>
3.2 Research Design .....	19
3.3 Population .....	19

3.4 Data Collection.....	19
3.5 Data Analysis .....	20
3.9 Operationalization of the Variables .....	21
<b>CHAPTER FOUR.....</b>	<b>22</b>
<b>DATE ANALYSIS, FINDINGS AND DISCUSSION.....</b>	<b>22</b>
4.1 Introduction .....	22
4.2 Exploratory Data Analysis .....	22
4.3 Diagnostic Tests .....	23
4.3.1 Test for Multi-collinearity .....	23
4.3.2 Normality Test Results .....	23
4.3.3 Heteroscedasticity .....	24
4.3.4 Unit Root Tests for Stationarity .....	24
4.4 Descriptive Statistics.....	25
<b>4.5 Pooled OLS Regression Analysis.....</b>	<b>26</b>
4.6 Discussion and Interpretation.....	29
<b>CHAPTER FIVE .....</b>	<b>31</b>
<b>SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>31</b>
5.1 Introduction .....	31
5.2 Summary of Findings and Discussion .....	31
5.3 Conclusion.....	32
5.4 Recommendations.....	32
5.5 Limitations of the Study.....	33
5.6 Recommendations for Further Research.....	33
<b>REFERENCES.....</b>	<b>34</b>
<b>Appendices .....</b>	<b>37</b>
<b>Appendix I: Letter of Introduction .....</b>	<b>37</b>
<b>Appendix II: Questionnaire.....</b>	<b>38</b>

## LIST OF FIGURES

Figure 2.1: Conceptual Framework .....	18
Figure 4.1: Financial Performance of Insurance Firms in Kenya for the year 2013-2017 .....	22

## LIST OF TABLES

Table 4.1: Multi-collinearity Tests .....	23
Table 4.2: Normality Test Results .....	24
Table 4.3: Heteroscedasticity Test.....	24
Table 4.4: Test for Stationarity Results.....	25
Table 4.5: Descriptive Statistics Results .....	25
Table 4.6: Regression Results with and without Control Variable.....	27

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## **DEDICATION**

I dedicate this project to my family. Special dedication to my father, Duncan Lemiso, who gave me the necessary push and encouragement to complete this research project. Your support is highly appreciated.



# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Insurance firms provide specialized financial services for the development and growth of every economy. Pearson and Robinson (2007) state that the unique services include mobilizing sizeable funds through premiums for long-term investments and underwriting of risks inherent in economic entities. The ability of insurance firms to cover risk in the economy depends on the companies' capabilities to generate value/profit for their shareholders. In fact, Charumathi (2012) states that a well-evolved and developed insurance industry is an economic development benefit because it provides every economy with long-term funds for infrastructure development.

Based on theory, diversification is linked with benefits as well as costs. Sharing in the production process, for example, which is often linked with concentration, lowers the costs for joint production in comparison to the aggregate cost for producing each product individually (Teece, 1980). Williamson (1985) states that the benefits of diversification can arise from efficient internal governance mechanisms.

Diversification has been suggested as one of the ways to improve the performance of insurance firms. A report by Ukiri (2013) identified diversification as a key factor that aided the performance of health insurance penetration in Nigeria. The study revealed that diversification played a leading and pivotal role in the evolution of Health Insurance and the drive to give competitive advantages to the insurance industry. Collins (2013) also proposed in his study on Mobile Insurance as a source of Innovation that product innovation holds great potential for enhancing the performance of Insurance firms. Locally, a report by AKI (2018) championed the remodeling of insurance products in Kenya as a way to improve the performance of insurance firms in Kenya.

The performance of Insurance across the developed countries has indicated mixed performance with penetration of insurance in South Korea at the highest with a penetration of 12% followed by Japan and UK with a penetration of 11%. The market penetration of insurance firms in France, Italy, USA, and Germany is at 9%, 8.6%, 7.3%, and 6.5% respectively. In Sub-saharan Africa, South Africa leads the market with a penetration of 15.84%, with Mauritius, Kenya,

Egypt, and Nigeria at 5.44%, 3.41%, 0.68%, and 0.36% respectively. Low penetration of insurance products has been attributed to a lack of innovation and diversification of insurance products (Dash et al., 2018; Olayungbo and Akinlo, 2016).

Kenyan based insurance firms have a low performance with a general penetration at 3.03% in 2016 down from 3.44% in 2013 (Association of Kenya Insurers [AKI] Report, 2016). This has been attributed to low product diversification among the insurance firms, low consumer knowledge and little awareness of insurance products, negative perception of insurance practices, low consumer purchasing power, low returns as compared to other investment options, poor service and unhealthy competition among insurers (Gitau, 2013).

Regardless of this situation, most players in the sector are confident that Kenya's insurance industry will grow because low penetration suggests that numerous opportunities are currently available in the market. Further, the mergers and acquisitions witnessed in the industry in 2014 indicate investor confidence in the attractiveness, growth potential and stability of the insurance sector in Kenya (AKI Report, 2014). However, the entry of new players in the industry not only signifies growth opportunities but also signals higher competition resulting in dwindling fortunes for already existing market players (Gitau, 2013). Therefore to ensure improved performance of insurance companies in Kenya in this rapidly changing environment, industry players are embracing diversification. Thus highlighting the potential role that diversification holds on the performance of insurance firms locally (Drucker, 2013).

### **1.1.1 Product Diversification**

Ramanujan and Varadarajan (1989) define diversification as a strategy where a company enters new lines of activities through acquisition or internal expansion. On the contrary, Cannon and Hillebrandt (1989) define justification as the process where companies extend the variety of their business activities besides their present ventures. This definition incorporates the directions of diversification, which include horizontal and vertical integrations. Resultantly, Ibrahim and Kaka (2007) point out, diversified companies operate in more than one industry. Through diversification, firms increase the range of their investment opportunities because they can capitalize on numerous business opportunities in other sectors of the economy that they were not previously engaged in. Diversification is a critical component of a firm's strategic management; hence, the relationship between economic performance and diversification draws much attention among scholars and managers.

Benefits of corporate diversification will be reflected through a positive relationship between diversification and performance. According to Besanko et al. (2007), the benefits are mainly linked to minimizing risks, scope economies, greater market power, and larger internal capital markets. Through diversification, firms spread their underutilized resources to new areas resulting in economies of scope. Moreover, through diversification firms can create as well as use a large internal capital market. For instance, funds generated from one venture can be invested in another enterprise. The argument is based on the assumption that as a result of information asymmetric the efficiency of internal capital markets is higher in comparison to the external capital markets.

Diversification also results in income volatility and risk minimization given that the profit streams from different enterprises are not perfectly correlated. According to Cummins and Danzon (1997) and Liebenberg and Sommer (2008), the risk reduction must raise the prices that risk-sensitive clients are willing to pay. Moreover, based on some scholars, diversification increases a company's willingness to cooperate rather than cheat. Precisely, close correspondence in market structures increases the chances of collusion between companies by enabling them to avoid the full rigors of competition by practicing mutual forbearance (Li and Royston, 2004). Resultantly, firms minimize the intensity of competition and adjust the market price to maximize profits.

### **1.1.2 Financial Performance**

Daft (2000) defines firm performance as the ability of an organization to realize its objectives through efficient and effective utilization of resources. Firm performance is determined by proper management of internal resources and adaptation to an organization's external environment. Besides, it reflects the realization of the growth goals and strategic objective of an organization (Hult, Hurley and Knight, 2004). Therefore, performance is linked to the overall achievements of an organization because of new and/or better efforts made to generate profit and growth.

Performance measures are largely described as two dimensional (Agarwal, Erramilli &Dev, 2003). Objective performance is one of the dimensions and involves market-based and financial measures including profitability, capacity utilization, and market share. The second dimension deals with subjective/judgmental performance, which focuses on employee and customer based measures like customer and employee satisfaction and service quality, among others. Judgmental measures are important prerequisites for profitability and imply that for a

company to achieve successful objective performance, careful attention must be paid to the service quality offered, as well as to both customer and employee satisfaction (Agarwal et al., 2003).

Production, marketing, and innovative performance constitute the quantitative performance measures of an organization. Griffin (1997) states that financial measures like ROI (Return-on-Investments), ROS (Return-on-Sales), and ROA (Return-on-Assets) are often favored for performance evaluation. On the contrary, it is impossible to measure some innovative managerial efforts through such financial performance indicators (Oke, Burke, and Myers, 2007). According to Griffin (1997), the number of sales generated from new products or innovations is one of the common measures of innovative performance. However, business measures like ROA and ROE cannot be associated with innovative activities; hence, they are often ignored.

This study will adopt an objective performance measure of sales turnover similar to previous studies by Griffin (1997); Aragón-Correa, García-Morales, and Córdón-Pozo (2007) and Oke et al. (2007). The study will assess growth in sales turnover for the period between the financial years of 2012 and 2018 as within this period a nationwide campaign on the exploration of innovation as a tool for improving the performance of insurance industry in Kenya was initiated (AKI Report, 2014).

### **1.1.3 Relationship Between Product Diversification and Financial Performance in the Insurance Sector**

Based on the findings of several studies investigating the relationship between firm performance and diversification, the results have been mixed (Lei and Schmit, 2010). Based on the diversification discount theory diversified firms are likely to register poor performance in comparison to organizations that adopt a strategic focus; hence, such firms are likely to experience slower growth (Martin and Sayrak, 2003). On the contrary, Myers and Read (2001) state that diversified can capitalize from scope economies and can charge higher prices, particularly in situations where customers prefer one-stop shopping. Specific studies focusing on how performance is affected by product diversification in the insurance sector are rather scarce. Meador et al. (2000), for example, specifically deals with the life-health insurer and points out that life insurers that are diversified are more cost-efficient in comparison to their more narrowly focused counterparts. Based on Elango, et al. (2008) research on 1074 property-

liability insurers for the 1994 to 2002 period, insurer's geographic diversification degree determines how firm performance affects business line diversification.

Moreover, Shim (2011) investigates between financial performance and diversification and mergers and acquisition in the P/L industry in the over the 1989-2004 period. Accordingly, product-diversified firms are outperformed by more focused insurers which implies that the costs of diversification outweigh the benefits. According to Choo (2012), the Japanese non-life insurance sector is characterized by diversified insurers who are more cost-efficient. Equally, the size of insurance firms determines the diversification-performance relationship Berry-Stölzl et al. (2013). Moreover, large insurance companies operating in nations that have capital markets that are less developed, their performance is significantly raised through diversification.

#### **1.1.4 Insurance Sector in Kenya**

Insurance is defined as the promise of compensation in case of a probable loss, in return for a periodic payment. The process is risk mitigation practice that transfers undesirable events among firms and individuals through financial protection. Insurance is mainly divided into two: Non-life (general) and Life insurance. Through non-life insurance individuals or organizations are protected from undesirable events that result in damage or loss of property. On the other hand, life insurance facilitates long-term savings that ensure that a decent amount is accumulated to meet policyholders' financial needs at various stages in life. Moreover, based on the AKI Report (2014) life insurance is a long-term investment tool that facilitates capital growth.

The insurance sector in Kenya comprises of 25 general insurers, 13 life insurers, and 11 composite insurers. Other players as pointed out in the AKI Report (2014) include 198 licensed insurance brokers, 5,155 insurance agents, 29 MIPs (Medical-Insurance-Providers), 108 motor assessors, 25 loss adjusters, 133 investigators, and 24 insurance surveyors. Kenya has two major associations: The AKI (Association-of-Kenya-Insurers) and The AIBK (Association-of-Insurance-Brokers-of-Kenya), whereas IRA (Insurance-Regulatory-Authority) is the country's regulating body of the industry (AKI Report, 2016).

The insurance sector in the country is highly competitive with 49 firms fighting for a market share of around 2.93% as of 2014. The insurance sector in the country has been operating in a stable environment until recently. The industry provided standardized products and as Gitau (2013) states competition was slightly low. Nonetheless, the rise of players in the sector form

15 in 1978 to 39 in 2001 to 49 as at end of 2015 has increased pressure on insurance firms to formulate strategies that will successfully facilitate proactive response to sectorial changes in the environment which has become increasingly competitive. In response, insurance has become innovative. Some insurance firms in the country have adopted product innovation as a way to gain competitive advantage and survive in the competitive market. (AKI Report, 2016).

## **1.2 Research Problem**

Currently, most business operating in Kenya operate in a dynamic, volatile and competitive environment. Response to business environment change is one of the factors that will enable firms to survive and succeed in such an environment. In the recent past, Kenya's insurance sector has experienced increased emphasis of product diversification as a way to gain competitive advantage in the market, with insurance firms developing new products in the market (AKI Report, 2016).

Several studies have been conducted on the product diversification-performance relationship in the financial sector, but mixed results have been presented. Globally, these studies include Gündoğdu and Taşkin (2017) who investigated the effect of product diversification on the performance of banks through descriptive study design. Krivokapic, Njegomir, and Stojic (2017) conducted a panel study on the effect of corporate diversification on the performance of insurance firms in Serbia. Lee (2017) also conducted a panel study on the effect of product diversification on the performance of Taiwan property and liability insurance firms.

Locally in Kenya, many studies have been conducted in product diversification and performance relationship in the financial services sector. Ngumi (2014) and Nandwa (2016) conducted a study on the effect of diversification on the performance of banks in Kenya. The study results indicated that diversification affects the performance of firms positively. However, the study only focused on banks. Nduki (2016) also carried out a study on growth diversification strategies and performance of insurance firms in Kenya. The study explored line and investment diversification excluding product diversification.

These aforementioned studies on financial service sector indicate that limited studies have investigated the effect of product diversification on the financial performance of insurance firms, with most studies focusing on banks. Additionally, the reviewed studies reveal that studies that have been conducted on product diversification-performance relationship have been carried outside the county. These studies have focused on different insurance portfolios by focusing on the whole insurance industry. This study will intend to address this gap by

addressing the question; does product diversification affect the performance of insurance firms in Kenya?

### **1.3 Objective of the Study**

The main objective of this study is to determine the effect of product diversification on the financial performance of insurance companies in Kenya.

### **1.4 Value of the Study**

This research will be beneficial to insurers in Kenya as it will bring out the value of diversification in the now highly competitive Kenyan insurance sector. The study will be of importance to the following beneficiaries

It will assist insurance companies to identify, analyze and develop products that will steer them ahead of the competition and create value for all stakeholders.

Through the study findings, Insurance Regulatory Authority (IRA) will obtain important insight into the various dimensions of product diversification in insurance companies in Kenya and obtain guidance from this study in designing appropriate policies that will aim to foster growth and survival of the industry.

Through the findings of the study, policyholders will gain insights on products that exists across insurance and this will help the consumers and policyholders make decisions in regards to policies that they can take. Further through the findings, consumers can gain more insights into the performance of insurance firms thus helping them in making decisions on insurance firms wherein they can take policies.

The findings of this research will be particularly significant to the insurance firms' management since they define diversification plan and business strategies that can be used to improve the position of such companies in the market. It will assist these companies to identify, analyze and develop products that will steer them ahead of the competition and create value for all stakeholders.

The findings will also add to the current knowledge level in regard to diversification strategy within the service industry, and particularly the insurance sector as well as act as a facilitator for further research in the same area and other related areas in the financial sector; hence it will benefit future scholars and researchers. Through the findings of the research, governments will also obtain the necessary information to determine policies regarding disincentive and

incentive measures for diversification of product, life and non-life services and formulation of competitive policies that will enhance insurance firms' performance.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This section covers the literature that is reviewed in relation to product diversification and performance. The theoretical background is laid out together with the empirical review. The section further highlights the conceptual model of the study.

#### 2.2 Theoretical Framework

This section covers the theoretical underpinning upon which this study is based on focus on the blue ocean theory and resource-based theory.

##### 2.2.1 Resource-Based Theory

An outstanding theory in diversification study is the Resource-Based Theory (Penrose, 1959) that posits that competitive advantage arises from organizational resource and capabilities that underlie and determines a firm's capacity for innovation. A firm is considered as a coordinated bundle of resources and its capability to exploit the resources a source of sustainable competitive advantage (Teece et al., 1997). Firms obtain competitive advantage from unique bundles of tangible and intangible assets that are rare, valuable, imitable and sustainable. Firm resources are those assets connected semi-permanently to a firm and include human, social, technological, knowledge, physical and financial (Ernst and Young, 2012).

The Resource-Based Theory (RBT) of the firm is a dominant perspective of strategic management that seeks to find out why some firms consistently outperform others (Lilly and Juma, 2014). Barney (1986) points out that the RBT focuses on costly-to-copy attributes of the firm as the main drivers of competitive advantage and performance. The theory contends that the efficient and effective application of an organization's essential resources facilitates competitive advantage, and by extension, its performance.

Prior to the formulation of the resource-based theory, the notion was that the relative position of a firm in a specific industry determined each firm's profit potential (Barney, 1986). Later, researchers argued that the use of certain internal factors, that is, an organization's resources and capabilities play a significant role in the maximization of a firm's performance. Resources are defined as the basic inputs into the production process, such as capital equipment and employee

skill, whereas capabilities are defined as the capacity for a team of resources to perform some task or activity.

Each organization has varying amounts of resources and capabilities, and the exploitation of these determines the performance of a firm (Lin, Peng and Kao, 2008). An organization's choice on use and leverage of its existing resources and capabilities determines the development of products, processes and market innovations that will give them an advantage over existing competition and thus boost performance. Through product diversification, an organization can develop products that will give them competitive advantages thereby improving their performance.

Diversification research as viewed from the RBT perspective posits that unlike focused strategy diversification can result in superior firm performance because it enables organizations to maximize resources; and thus obtain additional income. According to Barney (1997), operational scope economies in the context of diversification enables companies to assemble a range of mutually reinforcing businesses because essential resources can be shared among business units. When viewing the advantages of diversification based on this approach, companies that have related diversification plans can obtain an edge over those with unrelated diversification strategies. To the level that the key to better performance from a diversification strategy relies on the ability to share resources, an organization that is diversified into unrelated businesses is unlikely to have resources that can be useful for all its business units. This theory will be central to analyzing the effect of product diversification on the financial performance of insurance firms.

### **2.2.2 Portfolio Theory**

The Modern Portfolio theory was developed by Markowitz (1952). The theory holds that both maximum expected returns and the variations in the minimum values should exist so as to attain an efficient portfolio. The portfolio which is efficient encompasses assets which are either risky but of high value or those that are less risky but having a lower value. Therefore profits may be attained by avoiding those assets that are likely to result in diminished returns or those that do not perform as well as expected. This thus leads to a scenario whereby there are options in the assets and resources to be used in accomplishing a particular task or else known as diversification (Brealey and Myers, 2003).

Insurance firms have over the years noticed that there is a need to diversify their product offerings to remain relevant, increase their earnings and maintain their sustainability in this cutthroat competitive financial services industry. With the liberalization of the market coupled

with deregulation and globalization, insurance companies have found it increasingly difficult and costly to maintain their profitability. The theory's proposition to this study is that the insurance firms may reduce the risk facing the investments by distributing the investment amounts among all those securities which give a maximum expected return. This theory indicates that where the diversification is well implemented as a performance improvement strategy, it may enable insurance firms to attain competitive advantage. It may also be utilized in coming up with other strategies, based on the benefits accrued.

## **2.3 Determinants of Insurance Firm's Performance**

### **2.3.1 Micro Insurance Product Diversification and Performance of Insurance Firms**

Micro insurance is a crucial tool for promoting positive financial performance for the policy providers. The principle of micro insurance also aims at boosting insurance penetration in the Kenyan market. It is a concept developed from the broader field of microfinance that is composed of a variety of „Micro“ financial forces targeting people with low income. While most formal insurance arrangements prevalent in the developing world may not each fulfill all the elements cited above, the key requirements are that the "micro insurance" product be developed in collaboration with the targeted poor and that it must be of value to them, without which demand would simply not be there (Paramasivan and Rajaram, 2016).

In the recent past, new micro insurance products have emerged in agriculture, cell phone, funeral, and housing insurance, among others. Nonetheless, irrespective of the industry's proactive measures to provide the low-income market with products, short-term insurance is still relatively low. Besides being simplified and characterized by relatively low premiums, low-income market products can be underwritten by individuals or groups (Ime and Ikechukwu, 2017).

Asemelash (2002) confirmed a positive impact of micro insurance on the policyholders and the providers. He showed that micro insurance has impacted positively on individual enterprises. The concept has led to higher investment from the smallholder businesses since major risks encountered in such ventures are covered under micro insurance. Microfinance institutions also rely on the solutions to secure loans offered to the smallholders in the event of default occasioned by an insured peril in the micro insurance deal. On the other hand, insurance providers can hope for a higher return based on increased uptake of the policy from the smallholders.

Madole (2013) established that age or experience of a firm, accessibility to its products, liquidity affect micro insurance uptake. There is need for a sustained effort to promote public awareness, constant innovation, and product development. The study concludes that micro insurance

solution is necessary for the smallholders and if well managed should spur positive financial return for the policy providers.

Peter (2014) asserted that micro insurance was directly related to the performance of insurance companies in terms of production and premium reporting. The separation of this class from the other businesses when reporting as required by the Kenya regulator was a milestone towards its recognition in the insurance books. This relationship is widely affected by the size of the firm, reinsurance dependence, availability of resources and supportive company policy structures.

In the study done by Lucas (2014), he observed that good public relationship and intercompany relationship got a long way towards realizing high profits for the micro 5 insurance underwriters. This was because the target population involved was very sensitive and required fast services during policy preparation and resolving of crisis. The good intercompany relationship was as important as many businesses trickled from the banking sector to the underwriter and this meant more profits for the underwriter in terms of premium intake from the banking sector.

A further analysis by Laura (2014) in her paper "Micro-insurance learning" observed that micro insurance production was largely affected by the human resource capacity. She asserted that the success of the product measured from the premiums and claims analysis was not conclusive enough in measuring the overall performance of the firm with lack of knowledgeable human capacity. It was evident that an investment in human resources boosted the overall premium of the product upgrading the overall net premiums of the company's cash flow statement.

Andrew (2012) viewed the claims and premiums relationship on the insurance company with regard to micro insurance and concluded that they had different roles. Customers would rather pay smaller monthly bills for the premiums while the insurer compensated the entire claim amount at once. This meant that few premiums received, were fully disbursed to claims regardless of full premium payment or not resulting in less profit for the firm in the long run. Under these conditions, the company had to get more resources from other activities to run the micro claim department successfully.

### **2.3.2 Relationship Between Digital Insurance and Performance of Insurance Firms**

Digital insurance is reliance on digital solution to provide and conduct insurance and related financial services. The range of digital insurance includes transactions to make personal or insurance investments, administer claims and policies and access customized information. Based on this research, insurance companies include various types of financial services involved in all types of insurance activities from corporate to retail, among others.

Some consumers, particularly young persons are often dissatisfied with insurance firms. For instance, 2015 world insurance report highlights the notion that most young persons are becoming increasingly dissatisfied with insurance companies. In turn, the report recommends insurance firms to identify innovative measures that can be used to move their products and services to their customers and determine robust measures that can be used to respond to their diverse and continually evolving demands. The report concludes that one of the way insurance firms can develop is through developing digital insurance products (Mugisha, 2016).

Nandwa (2016) points out that to become successful in the digital landscape, insurance firms ought to align their products and services with the habits and cultures of digital natives. Notably, the firms need to embrace mobile technologies, mobile payments, and mobile banking. Mutegi (2018) points out that in the near future most revenue in the insurance sector will emanate from digital insurance in the most progressive customer segments and geographies. These innovations will significantly impact insurance firms in the UK, the US, the Scandinavia, and Western Europe.

Insurance firms in emerging economies will have a significant revenue inflow emanating from online or mobile digital insurance. Although KPMG. (2016) in their report urges that mobile money payments in Kenya through Safaricom offers insurance companies the opportunity to adopt digital insurance services, with some of the insurance companies in Kenya adopting digital insurance. Hence, insurance companies in emerging countries like Kenya can very likely raise significant new inflow revenue through digital insurance.

The large unexploited insurance market in Africa needs innovative solutions. Insurance firms seeking to expand their market penetration beyond their conventional market segments must understand the significance of access, reach, flexibility, simplicity, and scalability. Embracing digital technology enables insurance firms to minimize the cost of providing services to customers, streamline internal processes and provide tailor-made products and services based on the demands of particular market segments. To develop digital insurance products, companies must embrace innovative technology along the value chain of the insurance; embed technology needs into a digital mindset that focuses on collaboration, flexibility, and agility (Nicoletti, 2016).

According to Catlin, Paliath and Segey (2015) digital insurance innovation signify great benefits to insurance companies; notably, high ROI and cost reduction. Moreover, Desyllas and Sako (2013) state that introducing digital insurance in the motor sector facilitates insurance

reimbursement and an efficient fair distribution of the rate. Furthermore, introducing digital insurance creates benefits in the sector by facilitating discipline improvement among policyholders on the road when driving; thus minimizing the number of insured events. Karapiperis et al (2015) justify how digital insurance approach is key to delivering products through smartphones, social media, and mobile money payment systems. Nicoletti (2016) admits that disruptive innovations are beneficial to insurance firms provided they do not create significant losses in product segments or geographic areas.

Insurance firms that embrace digital insurance will continue to maximize profits and obtain more revenue. These firms will develop new channels through automated processes, integrated approaches, and creation of new products, transform their customer experience and innovate key elements of the value chain. Financial markets, clients, intermediaries as well as regulators will penalize insurance firms that fail to embrace digital innovation.

According to Klapkiv and Klapkiv (2017) just like what happened in the retail banking sector, asserts that insurance firms that adopt digital insurance innovation are likely to experience improved bottom line in the long run. This was confirmed in a survey by Accenture (2014) conducted among the managers, with the survey indicating that most managers have confidence that by 2022 the world of insurance will be radically transformed through digital insurance. Based on the survey: 39% of managers think margins will be reduced through digitalization; 59%believing that digital insurance will help in the distribution of insurance.

### **2.3.3 Banc Assurance and Financial Performance in Insurance Industry**

Mbogo (2010) points out that selling insurance products through inadequate channels is one of the causes of low uptake of insurance among Kenyans. In particular, the country's insurance sector has been depending on brokers and agents sell their products. However, to improve dissemination, it is necessary to increase access through channels such as bank assurance, telephone and worksite marketing, internet and virtual marketing, imperceptible insurer, partnering with NGOs and other community-based organizations.

Most clients prefer cover products that are valuable, reasonable and modest. Through these factors, clients determine whether to take up cover and thus identify the impact of cover. Modernism in product variation and productivity growth plays a critical role in realizing the growth of insurance companies and the cover region as a whole. As such, players in the sector both anticipate and satisfy the demand of different customers and therefore distribute services deeper in the region.

Cover products targeting particular markets have been developed by insurance companies (Nandwa, 2016). For instance, Jubilee Insurance Company Limited has developed a non-life cover product targeting the insurance needs of secondary school students. Resultantly, the approach will enable companies in the sector to deal with the difficulty of lack of clear-cut subdivision and targeting in product strategy; and thus ensure all needs are met. Moreover, fiscal service providers such as banks have been attractive to special groups like Standard Chartered's Diva account for women, Equity bank's Fanikisha account, Move and Chama Accounts for venture groups (Nandwa, 2016).

Banc assurance companies are more cost-efficient in comparison to insurers, which provides new insights into banc assurance's cost efficacy. Some of the preceding variables that can be used to measure insurance cost efficiency include overhead cost, income price, and net danger margin. Through a higher cost efficacy insurance firms obtain new capital and provide rivalry with insurers as well as encouragement on the offer of savings instruments. Typically, opposition results in better products and lower prices for insurance strategies.

Banc assurance facilitates the realization of scale economies and reduction of overlapping expenses, and thus lowers unit costs in the manner of the upright integrated 20th-century corporation. Through a low-cost construction, the insurance companies can capitalize on a cost-effective bundle of business financial services, including lending, risk management, currency management, retirement savings, and capital markets and all types of personal and profitable lines of cover (Gündoğdu and Taşkin, 2017). In India, banc assurance can become an effective distribution avenue; particularly because the country has a wide network that has been built over the years. Insurance companies can capitalize on the client's long-term relationship and trust with banks. According to Ngumi (2014), the association is also lucrative because banks can extend their product variety on offer to clients and realize more profits, while insurance firms benefit by receiving timely premium payments as well as getting relentless visibility at the bank branches.

Eventually, the banc assurance model can create cross-selling business synergies for insurance companies and banks that could lead to a reduction of cost through scale economies. To offer a wider range of services is beneficial to bank-assurers as this could bring comparative advantages over regular commercial banks. Economies of scale as Jongeneel (2011) points out play a critical role in embracing the banc assurance strategy. For example, the more insurance products sold by a bank, the more experience it will gain along with scale advantages and ultimately, the

marginal selling costs 19 can decrease. A reduction in costs by a commercial bank is a positive strategy to enhance its financial performance.

## **2.4 Empirical Studies**

Hsieh, Lee and Yang (2015) determined how diversification affects the property-liability insurance sector's performance across sixty-two nations. The research relied on the utilized dynamic panel methodology. Based on the outcomes, higher diversification increases returns and minimizes the insurer's risk while seeking to lower the level of leverage. The paper is relevant to study but it is limited to only property-liability insurance leaving out other insurance firm's portfolio.

Similar Study was also conducted by Lee (2017) who conducted a study whose purpose was to examine product diversification, insurance performance and business structure with a wide-ranging analysis at the P/L(Property-Liability) insurance. Using a panel data, the findings of this research demonstrated that product diversification is significantly negatively related to the P/L insurer's performance. The study focused on property line insurance only thus may not be significant in understanding the impact of product diversification on general insurance performance.

Benito-Osorio, Colino and Zúñiga-Vicente (2015) in their study sought to analyze the effect of product diversification on the performance of Spanish manufacturing firms through panel data model. The study results suggested that the larger the firm, the higher the optimal level of diversification. Further, the findings revealed that that manufacturing firms in Spain opting for some diversification attain higher profitability rates than those with no diversification or extensive diversification. This study was carried out among the manufacturing industry and not the insurance industry.

Krivokapic, Njegomir and Stojic (2017) conducted a study on the effects of corporate diversification on firm performance among insurance firms in Serbia. The study was conducted through panel data for the 10 year period. The research results show that the relation between risk-adjusted returns measured both by return on assets and return on equity and line-of-business diversification and performance measured by entropy is significant and positive, which means that diversified insurers outperform undiversified insurers.

Asman (2013) conducted cross-sectional descriptive research on the impact of diversification strategy on the performance of fourteen state-owned Kenyan commercial corporations. Based



on the study's findings, diversification strategy is positively related with performance in the Kenyan commercial state-owned corporations. The study was carried out among state-owned firms leaving out insurance firms. Another study was conducted by Mwangi (2015) whose aim was to analyze the effect of corporate diversification on the financial performance of manufacturing in Kenya. A descriptive survey was used in the study which targeted all the 19 listed manufacturing firms at NSE. The study identified a positive relationship between corporate diversification and Kenya's listed manufacturing firms' financial performance. The emphasis of the study was on manufacturing firms in Kenya but not on the financial sector in Kenya.

Kitisya (2017) determines how Kenya's commercial banks are affected by business diversification. The research relied on the mixed approach by using the quantitative and descriptive research designs. The research obtained primary and secondary data from a sample of 42 commercial banks in the country. Based on the research findings, the performance of commercial banks in the country is significantly positively affected by business diversification. The effect, however, is mainly determined by the size of banks.

The financial performance of small banks, for example, was significantly improved through business diversification. On the other hand, the financial performance of medium-sized banks was significantly affected by location diversification. The financial performance of large banks was not significantly affected by investment, location, and product diversification. The study focus was on banks and not insurance. Besides, the study investigated all the four types of diversification and was not specific to the type of diversification and performance of banks.

## **2.5 Summary of Literature and Knowledge Gap**

The literature reviewed the product diversification and financial performance relationship. This was covered under the micro insurance products, digital insurance products, and Banc assurance products. Reviewed literature generally agreed that these products when developed affect the financial performance of insurance firms. However, the reviewed literature showed that diversification has mixed effects on the financial performance of insurance firms. Reviewed literature also noted that micro insurance, digital insurance products, and Banc assurance have taken different modes in insurance firms and therefore may have different effect on the performance. To conclude, literature discussed the theoretical foundation of various constructs that will be used in this research: Resource based theory and Portfolio theory.

Reviewed studies also indicated that most studies on corporate diversification on insurance performance have only focused on categories of product diversification. For instance, most studies have been carried out on Banc assurance and financial performance locally. However, even these studies have been carried out through ANOVA indicate lack of rigor studies through panel or time series. Further, the empirical literature shows that limited studies that have been done on corporate diversification and financial performance have looked at line diversification, investment diversification and product diversification in relation to financial performance. There exists lack of specific studies on product diversification in detail and financial performance and hence this study will address the gap.

## 2.6 Conceptual Framework

The figure below explains the relationship between product diversification and financial performance of insurance firms in Kenya.

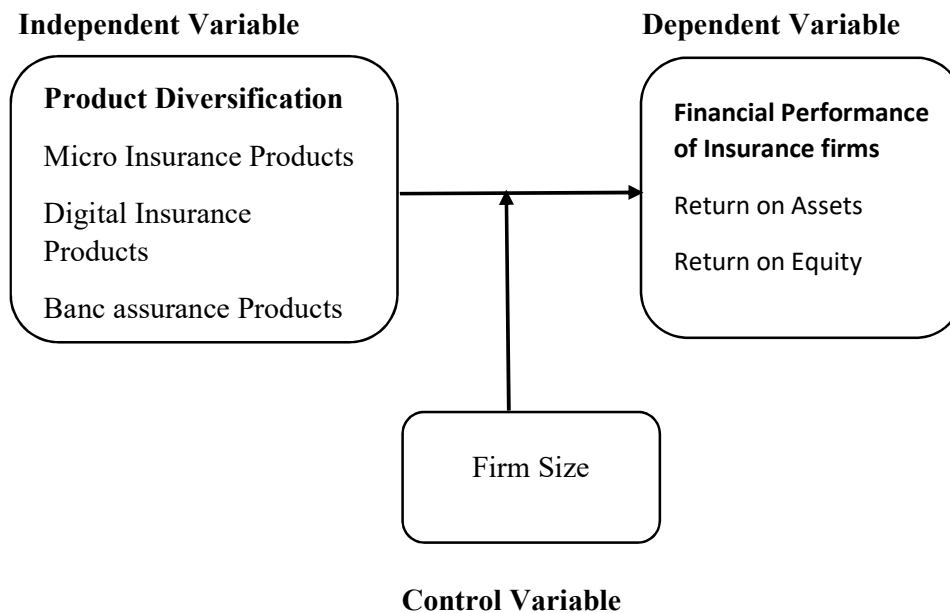


Figure 2.1: Conceptual Framework

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section articulates the research methodology used in the study as well as the general research outline. As such, the section discusses the research design, target population, sample and sampling procedures, description of research instruments, data collection procedures and data analysis techniques.

#### **3.2 Research Design**

Research design is the organization of an investigation. According to De Vaus (2001) research design ensures that the data obtained enables investigators to effectively address the study question in an unambiguous and logical manner. The cross-sectional descriptive survey design is used in this research. The design is appropriate for the research because it facilitates generalization of research findings. Descriptive studies as Sekaran (2005) points out to portray an exact profile of situations/events, persons, describing the existing attitudes and conditions through interpretive and observation techniques. The survey design facilitated comprehensive analysis by respondents on the influence of innovation on the performance of insurance companies in Kenya.

#### **3.3 Population**

A population refers to the combination of elements that have similar characteristics or behavior (Mugenda and Mugenda, 2003). The target population for this research was all 49 insurance companies operating in Kenya as of 31st December 2014 (AKI Report, 2016).

#### **3.4 Data Collection**

The study will use both primary and secondary data collection techniques. Primary data will be collected by questionnaire while secondary data will be sourced from the Insurance Regulatory Authority annual reports. Primary data will be collected through data collection forms based on the research objectives. Through these forms, information in relation to insurance premiums collected through micro insurance ( $X_1$ ), digital insurance ( $X_2$ ) and banc assurance ( $X_3$ ) will be collected. The target respondents will be the heads of business development, senior sales executives and functional heads for both underwriting and claims

departments. The use of questionnaires is deemed appropriate for this study given that it had the advantages of a structured format and its ease and convenience to respondents (Sekaran, 2005). The questionnaire will be administered through hard copy delivery by the researcher and where this is not possible, the questionnaire will be sent via electronic mail with the respondents being reminded to fill it with the highest level of accuracy possible. The questionnaire will be used to source information on the product diversification practices while the secondary data will be sourced from the insurance regulatory authority of Kenya, with the data readily available on their website for each insurance company.

### 3.5 Data Analysis

Data in this study will be analysed through quantitative means. The data analysis techniques used will include means, standard deviations, percentages, correlation, and multiple regression analysis. Diagnostics tests will be conducted before the actual analysis of the results. This data will be used to make comparisons, examine relationships and explore the research questions of the study. The software that will be used for quantitative data analysis is STATA (12).

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

$$Y = \alpha + \beta_{1t}X_{1t} + \beta_{2t}X_{2t} + \beta_{3t}X_{3t} + \beta_{4t}X_{4t} + \varepsilon$$

Where: Y: financial performance

X<sub>1</sub>: micro insurance products

X<sub>2</sub>: digital insurance products

X<sub>3</sub>: banc assurance

X<sub>4</sub>: Firm size

$\alpha$ : constant

$\beta_1$ - $\beta_3$ : coefficient of independent variables

$\varepsilon$ : error term

$\beta_1, \beta_2, \beta_3$  = Rate of change in Y as a result of a unit change in independent variables

Before carrying out the regression tests, the measures on the independent variable will be standardized through developing ratios. These ratios will be calculated by dividing each

measure by the total insurance premiums thus getting the proportion of each premium category when compared to the firms' total premium income. Firm size has been introduced as a control variable in the equation. This will be measured through the natural log of the firms' total assets.

The study will use Pooled OLS to test the relationship between the independent variables and dependent. A co-efficient of determination (R-squared) will be performed to determine how much of financial performance comes about as a result of the independent variables while regression co-efficient ( $\beta_1, \beta_2, \beta_3$ ) was used to indicate the effect of each individual variable (micro products, digital insurance, and banc assurance) on financial performance. The data concerning independent variables will be sourced through a data collection form from the insurance companies while data on financial performance will be sourced from financial statement reports at Insurance regulatory authority.

### 3.9 Operationalization of the Variables

<b>Objective</b>	<b>Variable Type</b>	<b>Indicators</b>	<b>Type of data analysis</b>
To examine the extent to which micro product influences financial performance of insurance companies in Kenya.	<b>Independent</b> Micro Products	Micro Insurance premiums against total insurance premiums	Descriptive Correlation Regression
To establish the extent to which Banc assurance products influences financial performance of insurance companies in Kenya.	<b>Independent</b> Banc assurance Products	Premiums Collected Through Banc assurance against total insurance premiums	Descriptive Correlation Regression
To establish the extent to which digital insurance products influences financial performance of insurance companies in Kenya.	<b>Independent</b> Digital insurance products	Premium from Digital Insurance Products against total insurance premiums	Descriptive Correlation Regression
To establish the extent to which the firm's size influences its performance	<b>Independent</b> Firm size	Natural logarithm of the firms' total assets	Descriptive Correlation Regression
	<b>Dependent</b> Financial Performance of Insurance firms	Return on Assets (ROA), Profits	Descriptive Correlation Regression

## CHAPTER FOUR

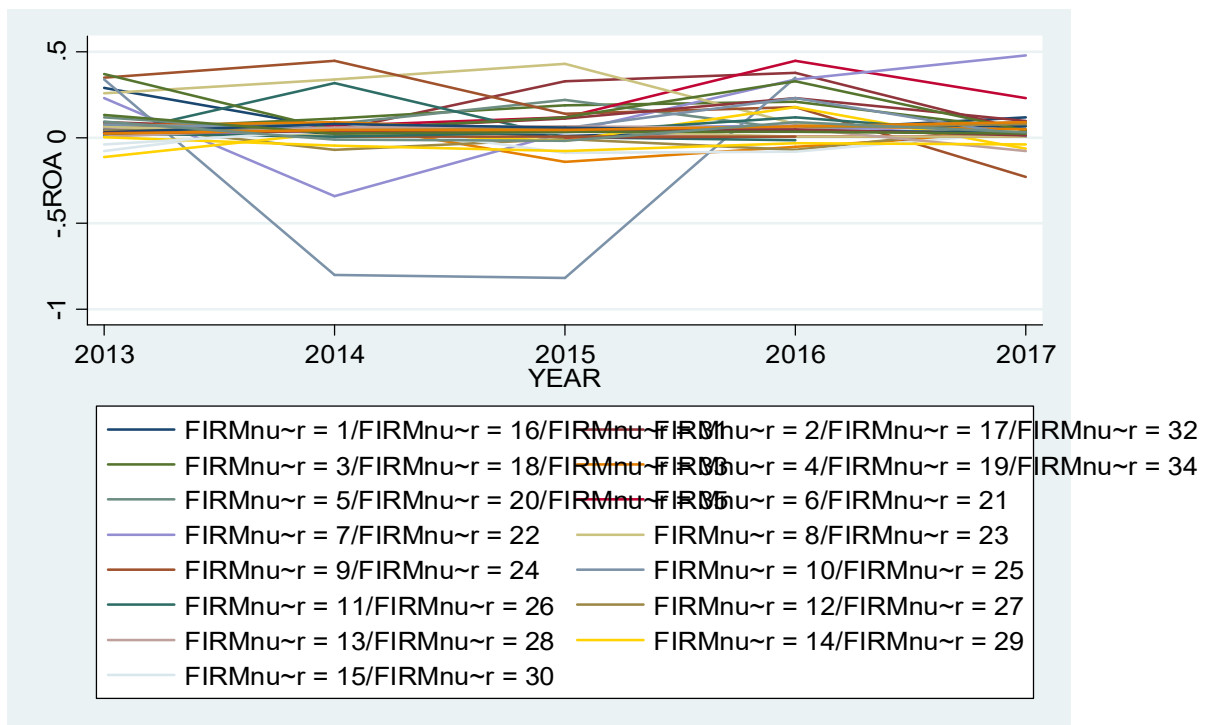
### DATE ANALYSIS, FINDINGS AND DISCUSSION

#### 4.1 Introduction

This chapter discusses the results of different analyses conducted on secondary data obtained from the insurance regulatory authority of Kenya and the various insurance companies over a five year period, 2013-2017. The statistical analysis was based on the STATA software. The data was entered in excel and latter imported to Stata (12) for transformation. Transformation was done through log transformation followed by data analysis. Out of a target of 49 insurance firms in Kenya, only 29 insurance firms were used in data analysis. This is because only these insurance had micro insurance products, digital insurance products and banc assurance products, and by extension data on premiums.

#### 4.2 Exploratory Data Analysis

**Figure 4.1: Financial Performance of Insurance Firms in Kenya for the year 2013-2017**



From figure 1 above, the study results show that all the insurance firms have generally exhibited a low return on assets over the past 5 years. However, the study also shows that two insurance firms have experienced a negative return to assets over the past five years.

### 4.3 Diagnostic Tests

#### 4.3.1 Test for Multi-collinearity

Regression analysis is based on a number of assumptions, one of which is that there is no collinearity among the independent variables. Value inflation factor (VIF) for the independent variables was thus computed to check for unusually high values. The results of the analysis showed that there was no multi-collinearity among all the variables. This was indicated by VIF values less than 4 that indicate absence of multi-collinearity. The results presented in table 4.1 below.

**Table 4.1: Multi-collinearity Tests**

<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
Micro-Insurance Premium	1.05	0.956586
Digital Insurance Premium	1.03	0.968480
Ban-assurance premium	1.02	0.980786
Return on Assets	1.01	0.993906

#### 4.3.2 Normality Test Results

A normality test was conducted on the panel data to determine the distribution of data in the series. The aim of the test was to determine the normality of the variables for analysis. From the results of the Shapiro wilts test the results indicated that only one variable was not normal,

with the variable being ownership structure. This variable was a categorical variable. The pertinent results are presented in table 4.2 below.

**Table 4.2: Normality Test Results**

Variable	VIF	P-value
Micro-Insurance Premium	5.873	0.000
Digital Insurance Premium	4.504	0.021
Ban-assurance premium	5.111	0.000
Return on Assets	6.495	0.000

#### 4.3.3 Heteroscedasticity

Wooldridge (2002) test for auto correlation was used to test for residuals. The results indicated that there was serial correlation in the data. This was shown by p-values less than 0.05. However, Wooldridge (2003) argues that heteroscedasticity does occur in panel data with less than 20 years, in the study data set. Thus he argue that heteroscedasticity has minimal impact on data analysis results of small data sets but large data set, and hence can be assumed in small data sets.

**Table 1.3: Heteroscedasticity Test**

Wooldridge test for autocorrelation in panel data		
H0: no first order autocorrelation		
F( 1,	10)	= 9.169
Prob > F	=	0.0127

#### 4.3.4 Unit Root Tests for Stationarity

Unit root test for stationary was carried out for the panel data. Harris and Tzavalis (1999) test was used for unit root test as it assumes lack of cross-section dependence and is most suitable



for small sample size, similar to the study. The results revealed that all the independent variables were stationary.

**Table 4.4: Test for Stationarity Results**

<b>Variables</b>	<b>Statistics</b>	<b>Z</b>	<b>P-values</b>
Micro Insurance Premium	0.247	5.448	0.000
Digital Insurance Premium	0.1922	6.4367	0.000
Banc assurance	0.1897	0.6575	0.000
Return on Assets	0.3452	4.923	0.032

#### 4.4 Descriptive Statistics

This section focuses on exploring the variables to understand the patterns of the data generally.

Descriptive statistics was carried out to explore the patterns of the variables.

**Table 4.5: Descriptive Statistics Results**

<b>Variable</b>	<b>Observations</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Min</b>	<b>Max</b>
Micro Insurance Premiums	175	0.08	0.041	0.008	0.18
Digital Insurance Premiums	175	0.02	0.038	0.007	0.09
Banc assurance Premiums	175	0.23	0.426	0.06	0.46
Firm Size	175	15.1531	2.1543	9.12367	21.387
Return on Assets	175	0.0828	.1938905	-0.082	0.48

This section focuses on exploring the variables to understand the patterns of the data generally.

Descriptive statistics was carried out to explore the patterns of the variables. The sample

covered a total of 24 insurance firms in Kenya from a period of 5 years from 2013 to 2017. The period of observation is from January 2013 to December 2017 resulting to a balanced panel. The mean score for micro insurance premiums was 0.08 showing that micro-insurance premiums represent 8% of the total gross premiums that insurance firms receive. Results on digital insurance premiums indicated that the mean was 0.02 showing that 2% of insurance premiums can be attributed to digital insurance premiums. The results also indicated that Banc assurance had a mean of 0.23 with a minimum of 0.06 and maximum of 0.46. This shows that 23% of insurance premium can be attributed to premium collected through banc assurance products. Further, the results indicated that the mean of insurance total assets is 15.1531, with a minimum of 9.123 and maximum of 21.387. This indicates that most insurance firms in Kenya have good asset base.

#### **4.5 Pooled OLS Regression Analysis**

Pooled OLS was performed on the relationship between the study variables, Micro insurance premiums, digital insurance premiums, banc assurance premiums, firm size and return on assets. Table 6 below reports the regression results with and without control variables.

The linear relationship was modelled into equation (1) below.

$$Y_{it} = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \alpha_i + \mu_{it} \text{ Where:}$$

$\alpha$  = Constant

$\beta_1 - \beta_4$  = Beta coefficients

$X_{1t}$  = micro insurance premiums at time t

$X_{2t}$  = digital insurance premiums at time t

$X_{3t}$  = Bancassurance Insurance Premiums at time t

$X_{4t}$  = Firm Size

$\alpha_i$  = error term between variables

t = 175 observations

i=24 Insurance Firms

$\mu_{it}$  = error term within variables

**Table 4.6: Regression Results with and without Control Variable**

<b>Model A Without Control Variable</b>				
<b>Return on Assets</b>	<b>Co-ef.</b>	<b>Std. Error</b>	<b>t</b>	<b>P-value</b>
Micro insurance Premium	0.089	0.6174	5.121	0.033
Digital Insurance Premium	0.0219	0.5899	3.124	0.063
Banc assurance Premium	0.1653	0.0728	6.49	0.00
constant	0.1448	71160.6	0.65	0.518
R-square: = 0.2126				
<b>Model B with Control Variable</b>				
<b>Return on Assets</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>t</b>	<b>P-value</b>
Micro Insurance Premium	0.1309	0.782	7.12	0.000
Digital Insurance Premium	0.0583	0.0457	2.454	0.078
Banc assurance Premium	0.1874	0.2528	5.895	0.000
Total Assets	0.2373	0.212	5.45	0.011
Constant	0.46201	0.7116	0.65	0.518
R-square: = 0.3214				

In Table 8 the model without control variable had a coefficient of determination ( $R^2$ ) = 0.2126 indicating that 21% of the variation in financial performance of insurance firms in Kenya was

explained by the model leaving 79% of the variations in financial performance as unexplained. This result implies that product diversification has a small effect on the financial performance of insurance firms in Kenya. However, the findings of the study with control variable shows a R squared of 0.3214, showing that 32% of change of financial performance can be explained by model that include firms size. This could be attributed to what Ahmad and Nor (2015) says firm size effect on the performance of firm resulting to stronger models.

Table 8 above presents the regression results of the study with and without control variable. The regression coefficient of micro insurance products was positive and significant in predicting the financial performance of insurance firms in Kenya in both model, with and without control, variables. This shows that an increase in 1 unit of micro product insurance premium results in increasing financial performance by 0.089 and 0.1309 units.

The results from the study indicated that digital insurance had positive and non-significant effect on the financial performance of insurance firms, both for model with control and without control variable. This was supported by p-value  $> 0.05$

From the findings it was established that banc assurance premium had positive and significant effect on financial performance both for model with and without control variable. This was supported by p-values less than 0.05. This findings implies that an increase in banc assurance premiums results in a unit increase in financial performance of insurance firms by 0.1653 or 0.1874 units.

The regression results on the effect of firm size on relationship between product diversification and financial performance indicated that firm size has a significant effect. From the findings it was established that model with firm size had an  $R^2$  of 32% while model with firm's size had  $R^2$  of 21% indicating that 9% of the change in  $R^2$  can be attributed to the firm size. This was also supported by the significant effect of firm size on financial performance with p-values less

than 0.05. This findings implies that a unit increase in firm size results to an increase in financial performance by 0.2373 units.

#### **4.6 Discussion and Interpretation**

The findings of the study indicated that micro insurance products affect the financial performance of insurance firms positively. This implies that insurance firms with micro insurance products are likely to experience improved financial performance. These findings corroborate the results of Odenyo (2018) who established that micro insurance premiums contributed to the overall company revenue of insurance firms in Kenya.

Based on the findings of the study it was established that digital insurance product has no effect on the financial performance of insurance firms in Kenya. These results suggest that investing into digital insurance products does not necessarily leads to improved financial performance. According to KPMG (2016) report, digital insurance product is only taking root in Kenya, with little impact on the insurance firm's bottom line. These results confirm the firms of Mburu (2017) who found out that digital insurance has not led to giving insurance firms comparative advantage.

Based on the study findings, banc assurance has a positive and significant effect on financial performance of insurance firms. This results suggest that investment in banc assurance products results to improved financial performance of insurance firms in Kenya. This confirms Njeri (2017) who studied Kenyan insurance industry and established that banc assurance has positive and significant effect on performance of insurance firms in Kenya.

Finally, the study findings revealed that firm size has a significant effect on the relationship between product diversification and financial performance of insurance firms in Kenya. According to (Nduki, 2016), large insurers are likely to perform better than small insurers because they can achieve operating cost efficiencies through increasing output and

economizing on the unit cost of innovations in products and process development. These findings demonstrate the increasing the asset base of insurance firm greatly affects the contribution of product diversification on insurance performance.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

The study sought to find the effect of product diversification on financial performance of insurance firms in Kenya. This objective was realized by assessing the effect of micro insurance, digital insurance and banc assurance on the financial performance of insurance firms.

#### 5.2 Summary of Findings and Discussion

The study sought to establish the effect of product diversification on financial performance of insurance firms in Kenya. This was tested through the following variables: micro insurance premiums, digital insurance premium, banc assurance premiums and firm size. The study revealed a positive and significant relationship between micro insurance products and financial performance of insurance firms. These findings imply that insurance firms with micro insurance products have improved financial performance.

Concerning digital insurance products, the study revealed that there was a non-significant but positive relationship between digital insurance products and financial performance of insurance firms in Kenya. These findings imply that digital insurance products have minimal effect on the performance of insurance firms in Kenya. On Banc assurance, the findings of the study revealed that banc assurance has positive and significant effect on the financial performance of insurance firms in Kenya. This implies that an increase in banc assurance products would automatically translate in an increase in the financial performance of insurance in Kenya.

The study also sought to establish the effect of firm size on the relationship between product diversification and financial performance of insurance firms in Kenya. Results revealed that

firm size has a significant and positive effect on the relationship between product diversification and financial performance of insurance firms in Kenya. Product diversification was confirmed to affect the financial performance of insurance firms as shown by an R squared value of 21%. However, the inclusion of firm size was found to increase the model effect to 32% thus the findings suggest that firm size results in a 9% increase in model effect on the relationship between product diversification and financial performance of insurance firms.

### **5.3 Conclusion**

From the foregoing presented and analyzed findings, product diversification is a significant predictor on financial performance of insurance firms in Kenya. Thus, it can be concluded that more investment in micro insurance products results in improved financial performance of insurance firms. Digital insurance products were not found to be key contributors to financial performance of insurance of insurance firms in Kenya. Thus, it can be concluded that increasing or decreasing investment in digital insurance products does not necessarily result to improved performance of insurance companies. The findings have also illustrated that banc assurance products affect the financial performance of insurance companies in Kenya. It can be concluded that banc assurance products are useful in the revenue growth and financial performance in the insurance industry in Kenya.

The study revealed a significant effect of firm size on relationship between product diversification and financial performance of insurance firms. Thus it can be concluded that an increase in asset base results into positive effect of product diversification on financial performance of insurance firms.

### **5.4 Recommendations**

The study recommends that insurance firms should pay more attention to developing micro insurance products as they are found to have positive effect on financial performance of



insurance firms in Kenya. The study findings reveal that digital insurance products has non-significant relationship with the financial performance of insurance firms in Kenya. This shows that insurance firms should not necessary target development of digital insurance products as way of improving financial performance. From the study findings, the study recommends the need for insurance firms to pay attention to product diversification factors not included in the model. The study recommends the need for government and insurance regulatory authority to develop policies and regulations that would enhance product diversification among insurance firms in Kenya.

### **5.5 Limitations of the Study**

Secondary data, mainly annual returns filed with the insurance industry regulator, formed the main source of data for this study. Therefore the reliability and quality of the data used was limited to the accuracy of information so obtained.

The researcher used regression analysis and made an assumption that the operating environment remains the same and all other things are held constant. This may not always be the case. Changes in the operating environment may affect the interaction of these variables with financial performance of the entities.

The findings of this study may not apply in the same way across the globe. This study focused solely on Kenya. The effect of the identified variables may differ from one geographical region to another.

### **5.6 Recommendations for Further Research**

The study recommends the need for more studies that would have a large sample size, covering a longer time period of over 10 years. Further the study recommends the need for studies that would test other covariates not included in the study.

## REFERENCES

- Abaenewe, Z. C., Ogbulu, O. M. & Ndugbu, M. O. (2013). Electronic banking and bank performance in Nigeria. *West African Journal of Industrial and Academic Research*, 6(1), 171-187.
- Akamavi, R. K. (2005). A research agenda for investigation of product innovation in the financial services sector. *Journal of Services Marketing*, 19(6), 359-378.
- Akhisar, İ., Tunay, K. B., & Tunay, N. (2015). The effects of innovations on bank performance: The case of electronic banking services. *Procedia-Social and Behavioral Sciences*, 195, 369-375.
- Alando, T. A. (2014). *An assessment of the effect of micro-insurance on the financial performance of insurance companies in Kenya* (Doctoral dissertation, Doctoral dissertation, School of Business, University of Nairobi).
- Asman, R. M. (2013). *Diversification Strategy and Performance Of Kenyan Commercial State-Owned Corporations* (MBA dissertation, University of Nairobi)
- Benito-Osorio, D., Colino, A., & Zúñiga-Vicente, J. Á. (2015). The link between product diversification and performance among Spanish manufacturing firms: Analyzing the role of firm size. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 32(1), 58-72.
- Buera F., Oberfield E., 2015, The Global Diffusion of Ideas, Working Paper 2016-13, <http://www.nber.org/papers/w21844> (access: 20.09.2017)
- Gündoğdu, A., & Taşkin, F. D. (2017). Analysis of the Relationship between Financial Innovation and the Performance of Turkish Banking System.
- Hsieh, M. F., Lee, C. C., and Yang, S. J. (2015). The Impact of Diversification on Performance in the Insurance Industry: The Roles of Globalisation, Financial Reforms, and Global Crisis. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 40(4), 585-631.
- Ime, F. B., & Ikechukwu, A. (2017). Micro insurance and Its Untapped Economic Development Potentials in Nigeria.
- Karabulut, A. T. (2015). Effects of innovation types on performance of manufacturing firms in Turkey. *Procedia-Social and Behavioral Sciences*, 195, 1355-1364.
- Kiragu, R. W. (2016). *Influence of Innovation on performance of Insurance companies in Kenya* (MBA dissertation, Strathmore University).

- Kitisya, D. T. (2017). An Analysis of the effect of business diversification on the financial performance of Commercial Banks in Kenya (MBA dissertation, Strathmore University).
- Klapkiv, L., & Klapkiv, J. (2017). Technological innovations in the insurance industry.
- KPMG. (2016). Kenya Insurance Survey Report
- Krivokapic, R., Njegomir, V., & Stojic, D. (2017). Effects of corporate diversification on firm performance: evidence from the Serbian insurance industry. *Economic research-Ekonomska istraživanja*, 30(1), 1224-1236.
- Laster, D., and RATURI, M. (2002). What Drives Financial Innovation in the Insurance Industry?. *The Journal of Risk Finance*, 3(3), 36-47.
- Lee, C. Y. (2017). Product diversification, business structure, and firm performance in Taiwanese property and liability insurance sector. *The Journal of Risk Finance*, 18(5), 486-499.
- Maina, M. N. (2016). Effect of innovation strategies on the performance of insurance firms in Kenya. *Unpublished MBA Project*.
- Mugisha, A. F. (2016). Strategies Adopted By Kenyan Insurance Companies in Meeting Student Market At The Universities In Kenya; A Case Of United States International University (Doctoral Dissertation, United States International University-Africa).
- Mutegi, F. K. (2018). *Role of Innovation Strategy on Insurance Penetration in Kenya* (Doctoral dissertation, COHRED-JKUAT).
- Mwangi, E (2015). The effect of corporate diversification on the financial performance of listed manufacturing firms in Kenya. *Unpublished Doctoral dissertation, University of Nairobi*.
- Nandwa, W. (2016). Effects of Innovation Strategies on Financial Performance: A Survey of Insurance Firms in Eldoret (Doctoral Dissertation, Kisii University).
- Nduki, M. E. (2016). *Growth Strategies And Performance Of Insurance Firms In Kenya* (Doctoral Dissertation, School Of Business, University Of Nairobi).
- Ngumi, P. M. (2014). *Effect of bank innovations on financial performance of commercial banks in Kenya* (Doctoral dissertation).
- Nicoletti B., (2016). Digital Insurance. Business Innovation in the Post-Crisis Era, Palgrave Macmillan, United Kingdom
- O'Brien, C. (2004). Product Innovation in Financial Services: A Survey.

- Omondi, J. E. (2017). The Effect of Micro-Insurance on the Financial Performance of Insurance Companies in Kenya (Doctoral Dissertation, School Of Business, University Of Nairobi).
- Ongwen, P. C. C. (2015). The impact of product innovation on financial performance of commercial banks in Kenya. *Unpublished MBA Project*.
- Paramasivan, D., & Rajaram, S. (2016). Micro Insurance Portfolio of Public and Private Sector Insurance Companies.
- Rajapathirana, R. J., & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation and Knowledge*, 3(1), 44-55.
- Scovier, J. (2015). *Effect of Banc assurance on Financial Performance of Insurance Companies in Kenya a Survey of Insurance Companies in Nairobi County* (Doctoral dissertation, United States International University-Africa).
- Shi, B., Baranoff, E. G., and Sager, T. W. (2016). Product Diversification In Health Insurance With Comprehensive Coverage Benefits Us Health Insurers. *Journal of International and Interdisciplinary Business Research*, 3(1), 14-28.
- Verhoef, G. (2016). Innovation and expansion: Product innovation and expansion in insurance in South Africa. The case of Sanlam, 1920-1998. *Historia*, 61(1), 66-91.
- Vermeulen, P. (2004). Managing product innovation in financial services firms. *European Management Journal*, 22(1), 43-50.
- Vermeulen, P., & Dankbaar, B. (2002). The organization of product innovation in the financial sector. *Service Industries Journal*, 22(3), 77-98
- Dash, S., Pradhan, R. P., Maradana, R. P., Gaurav, K., Zaki, D. B., and Jayakumar, M. (2018). Insurance market penetration and economic growth in Eurozone countries: Time series evidence on causality. *Future Business Journal*, 4(1), 50-67.
- Olayungbo, D. O., and Akinlo, A. E. (2016). Insurance penetration and economic growth in Africa: Dynamic effects analysis using Bayesian TVP-VAR approach. *Cogent Economics and Finance*, 4(1), 1150390.

## **Appendices**

### **Appendix I: Letter of Introduction**

University of Nairobi  
School of Business  
P.O Box 30197 - 00100 Nairobi

**Dear Respondent,**

**RE: RESEARCH WORK**

I am a postgraduate student pursuing a Master of Business Administration (Finance Option) at the University of Nairobi, undertaking a study on "Effect of Product Diversification on Financial Performance of Insurance Firms in Kenya". Your organization has been identified for this study and I, therefore, wish to request for your participation. Confidentiality of information is guaranteed in the study. Thank you for your support.

Yours faithfully,

Charles Ledama Lemiso

## Appendix II: Questionnaire

This questionnaire seeks information on the Product Diversification and Financial Performance of insurance companies in Kenya. No name is required.

### **Product Diversification and Financial Performance of Insurance Firms**

Please provide the premium income earned by your firm through the following products in the years indicated.

<b>Year</b>	<b>Micro Insurance Premiums</b>	<b>Premiums Collected Through Banc assurance</b>	<b>Premium from Digital Insurance Products</b>	<b>Return on Assets</b>
2013				
2014				
2015				
2016				
2017				

Thank you for your time and cooperation