

## **ASSESSMENT OF FINANCIAL FACTORS AFFECTING INSURANCE PENETRATION IN NAKURU TOWN, KENYA**

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### **Abstract**

*Over the past decade, insurance and banking firms have undergone transformation in the manner they offer their products and services in a bid to remain relevant in the insurance industry. Kenya, just like many developing countries is still at the infancy stages of absolute insurance cover. Records indicate that majority of Kenyans are presently not under any insurance cover. The study assessed the effect of financial factors on insurance penetration in Nakuru town, Kenya. The financial factors examined included administrative costs and agency costs. Blau administrative cost theory, agency theory, and S-curve theory guided the study. This study adopted a cross-sectional survey research design. The study focused on the 417 employees working with insurance firms in Nakuru town. A sample of 61 respondents was selected using stratified random sampling method. The study used a self-administered semi-structured questionnaire to collect data. The research questionnaire was pilot tested. Data analysis constituted both descriptive statistics and inferential statistics. Descriptive statistics included means, modes and standard deviations. Inferential statistics included Pearson's Product Moment Correlation and multiple regression analysis. Findings were presented in tables. The study found that all the financial factors investigated had significant relationship with insurance penetration. The study concluded that insurance firms incur administrative and agency costs that hamper insurance penetration. The study recommended that insurance firms need to arrest escalating costs associated with administrative functions and agency.*

*Keywords: Administrative costs, agency costs, financial factors, insurance firms, insurance penetration*

## INTRODUCTION

Insurance penetration is defined as the ratio of direct gross premiums to gross domestic product (Zhang & Zhu, 2006). In the same light, it is observed that insurance penetration is a commonly recognized indicator of insurance activity, and it is expressed in gross written premium as a percentage of gross domestic product (GDP). More so, the insurance penetration ratio refers to the gross value of insurance premiums as a percentage of GDP. This parameter is employed to measure the depth of a country's insurance market. Nesterova (2008) noted that demand for life insurance is driven by income level and life expectancy. According to Mashayekhi (2007), the level of development and insurance coverage are positively related. As such insurance penetration can be a predictor of economic development.

It is indicated that insurance firms traditionally focus only on the richest 5% of the adult population according to Klynveld Peat Main Goerdeler (KPMG, 2014). As such, majority of the poor fail to access and afford insurance services. The foregoing presents an opportunity for micro-insurers to sell low-cost products to the poor. It is further reported that insurance firms have come up with measures of reducing costs, for instance, when assessing or estimating the property that need to be compensated (KPMG, 2014).

Financial intermediaries such as insurance firms play a fundamental role in the economy by mobilizing funds from across all income levels and geographical areas, adequately, timely and at minimal cost (Omoke, 2004). Insurance companies raise funds by selling policies and taking in savings deposits and adequately investing these deposits in various forms of insurance investment. Generally, it is stated that financial intermediaries support development through the improvement of various functions. These functions include amelioration of market frictions such as the costs of accessing information, making transactions, and enforcing contracts and allowing economies more efficiently allocate resources across investments (Omoke, 2004).

It is reported that there is considerable variation amongst European countries relative to insurance penetration. The Netherlands and the UK have the highest penetration levels in Europe at 12.5% and 12.2% respectively. Finland and Switzerland also have high insurance penetration at 11.3% and 9.8% respectively. However, Latvia and Turkey and Romania are on the tail end of insurance penetration at 0.9% and 1.3% in that order. In Central and Eastern Europe, Slovenia posts the highest penetration at 5.5%. Between 2012 and 2013, Portugal posted the greatest increase in insurance penetration at +1.3%. On the other hand, Belgium at -1.4% recorded the greatest drop in insurance penetration of the same time period (Insurance Europe, 2014).

A report by KPMG (2014) on insurance in Africa outlined a number of reasons behind low insurance penetration on the continent. These include lack of means, mistrust of financial

service providers, unwillingness of multinational insurance firms to invest in Africa, lack of reliable information, poor legal and judicial systems, lack of human capital and expertise, shallow financial markets, and failure by communities to embrace formal insurance services. In 2012, Africa followed Advanced Asia, North America, Western Europe and Oceania in insurance penetration at 3.56%. However, at US\$66.4 premiums per capita, the continent was ranked last in the world (KPMG, 2014).

The insurance penetration in Kenya stood at 3.17% in 2014 according to Swiss Re (2014). This ranked Kenya at number four in Africa after South Africa, Namibia, and Mauritius. The country is said to be one of the few nations that contribute to African insurance growth. In spite of the fact that it lags significantly behind that of South Africa, the Kenyan insurance sector is one of the most sophisticated in Africa (KPMG, 2016). The insurance regulatory authority strategic plan of 2013 to 2018 indicated there has been a significant growth in the insurance industry. KPMG report further indicates that as at 2013, total premiums reached over KShs 150 billion having maintained an annual average growth rate of 15.5% from 2005 to 2013. In 2013, the insurance penetration rate reached 2.75%. This reflected a noticeable increase from 2.46% in 2011 (KPMG, 2016).

According to Insurance Regulatory Authority (IRA) report (2015), the insurance industry in Kenya is comprised of various players. Such key players include the insurance companies, reinsurance companies, the regulator, self governing insurance bodies, insurance brokers and other intermediaries. Notably, there were 47 licensed insurance companies by 2015 (IRA, 2015). It is further noted that the insurance industry has grown in terms of asset base and premiums. In 2014, the industry recorded premiums of Ksh 157.53billion up from Ksh 135.38billion in 2013, the assets base rose to Ksh 430.54billion in 2014 (IRA, 2015).

Insurance firms in Kenya have experienced mergers, acquisition and other restructuring process. For instance the acquisition of Real Insurance by Britam Holdings, Old Mutual acquiring UAP Holdings and Pan Africa Holdings acquiring Gateway Insurance, all in a bid to create synergy for revenue growth and profitability. Further, the recent entry of foreign firms in Kenya is poised to bring in industry stability through injection of core capital, technical expertise, innovation and distribution networks globally (IRA, 2015).

### **Statement of the Problem**

Kenya, just like many developing countries is still at the infancy stages of absolute insurance cover. Indeed, records indicate that majority of Kenyans are presently not under any insurance cover. This is evidenced by significantly low insurance penetration in Kenya. Though Kenya ranks fifth in Africa in terms of premiums paid (US\$ 1.29 million) and is top five in Africa in terms

of insurance penetration (3.17%), the country's insurance penetration is dwarfed by countries such as South Africa at above 14%. It has hitherto been a belief amongst many people that insurance is a concept associated with the minority rich people (KPMG, 2014).

The considerably low uptake of insurance covers vis-à-vis consistently increment in people's ownership of assets implies that insurance penetration is pretty low. The ramifications of this are indeed devastating. Many businesses are financed through debts and the lenders expect the borrowers to service the advanced loans regardless of any losses that might have been incurred. In the event that people owning household and/or business assets suffer losses through unforeseen accidents such as fire, arson, terrorist attack, etcetera, they are likely to be thrown into abject poverty overnight. A number of insurance firms have also recorded declining business while in extreme, some have collapsed.(Swiss Re, 2014) This is mostly due to reduced uptake of insurance covers. This underscores the importance of taking up insurance covers either as individuals or business owners, or both.

A couple of empirical studies have been carried out in respect of insurance penetration. Ochieng (2013) evaluated bancassurance as a strategy for penetration in Kenya. Odemba (2013) assessed the factors that influence the uptake of life insurance while focusing on the 13 life insurance companies. The study noted that insurance penetration in the country was only 1.3% despite the efforts by Association of Kenya Insurers and Insurance Regulatory Authority to increase penetration. However, the studies have not adequately addressed the various factors impacting on insurance penetration in Kenya. It is against this backdrop that this study was carried out.

### **General Objective**

The general objective of the study was to assess financial factors affecting insurance penetration in Nakuru town, Kenya.

### **Specific Objectives**

- i. To analyze the effect of administrative costs on insurance penetration in Nakuru town
- ii. To examine the effect of agency costs on insurance penetration in Nakuru town

### **Research Hypotheses**

**H<sub>01</sub>:** There is no significant effect of administrative cost on insurance penetration in Nakuru town.

**H<sub>02</sub>:** There is no significant effect of agency costs on insurance penetration in Nakuru town.

## THEORETICAL REVIEW

A review of theories touching on factors affecting insurance penetration is covered in this section. The Blau administrative cost theory, agency theory and S-curve theory are reviewed and discussed in context of insurance penetration.

### Blau Administrative Cost Theory

The Blau administrative cost theory was pioneered by Blau in 1971. The theory states that large size of firm reduces administrative overhead which implies administrative economy of scale. The theory further holds that the degree of differentiation of a firm and/or its products encapsulates greater structural complexity. It also states that differentiation is positively related to administrative costs. More so, the theory indicates that large size directly reduces the costs in spite of indirectly increasing administrative costs. However, the large size negative effect on administrative costs exceeds the indirect increase on the same costs. The reduction on administrative overheads is attributed to the aspect of differentiation which is made possible by the large size (Blau, 1971).

Both relatively large and small insurance firms enter strategic alliances (or partnership) with related firms such as leading commercial banks to sell their products to a wider market of customers. As such, these insurance firms are able to differentiate their marketing strategies by partnering with financial institutions in order to access as many prospective and current customers as possible. However, the small firms, according to Blau's theory stand to benefit more than their large counterparts whose administrative costs are bound to rise. This explained by the assertion that in the case of large firms, increased differentiation leads to increased complexity which makes management and administration complex (Blau, 1995). The theory explains that relatively small insurance firms are more likely to benefit differentiation through reduced administrative costs as opposed to relatively large insurance firms (Blau, 1995).

### Agency Theory

Agency theory was pioneered by Jensen and Meckling in 1976. The theory states that there is a cost implication when one party (principal) entrusts another (agent) to run part of, or the entire firm on their behalf. Principals refer to the owners or shareholders of a firm while agents may be employees or managers hired to run the affairs of that firm. Therefore, the agency theory involves three things; that is, two parties in principal and agent, and the firm or certain tasks or services that the agent is entrusted to perform. There are often conflicts arising from the relationship between the principal and the agent. This stems from the fact that agents want to

maximize reward for their efforts while the principal wants to minimize the costs of hiring agent or to maximize the output they receive (Jensen & Meckling, 1976).

According to the agency theory, principals cannot take for granted that agents will act to in the best interests of the principals. This is due to the reasoning that both agent and principal act rationally to maximize their utility. This necessitates a contract between the two parties with the object of overcoming conflict between them by specifying agents' inputs and distribution of outputs. Nevertheless, contracts do not entirely address the conflict. This leads to agency costs which are important in reducing agents' persuasion to look after their own interests instead of the principals. There are three main elements of agency costs which include costs of contracting, costs of monitoring, and residual loss. The latter refers to reduction in the value of the firm as a result of unresolved agency problems. According to Ang, Cole and Lin (1998) agency costs are significantly higher when an outsider rather than an insider manages a firm. The costs are inversely related to manager's ownership share. The costs increase with increase in number of non-manager shareholders; and the costs are lower when there is greater monitoring by banks (Ang et al., 1998).

### **S-Curve Theory**

The S-curve theory is credited to Fisher (1971), Sahal (1981), Adner (2004), and Sood and Tellis (2005). The theory states that technological innovation follows an S-shaped curve whereby the curves represent specific production factors. It is stated that physical laws allow such factors to increase physical outcome till a certain point where innovation takes over and a starts a new curve. New innovations are likely to take over a market (Christensen, 1992).

According to Heijer (2010), the explanation of technological innovation is mainly interested in the physical aspect of the products or the production factors. However, social and economic factors do play an important role as well. This is due to the fact that such factors determine the trajectory of a technology. In the same breadth, if a market fail to desire a certain technology, it is less likely to develop or embrace it.

In the context of insurance, presently there are more and more insurance products that have been developed over the years. These range from life to non-life insurance packages. The development of these products follows an S-curve. Their development and acceptability (penetration) is subject to a number of factors inherent to insurance firms and factors external to these firms. The S-curve can also be used to explain the diffusion (penetration) of (insurance) products in a market (Tidd&Bessant, 2009).

## EMPIRICAL REVIEW

There are several empirical studies that have hitherto been carried out in respect of financial factors affecting insurance penetration globally, regionally and also in Kenya. Of interest are benefits associated with aforesaid factors which touch on administrative costs and agency costs; all these in light of insurance penetration

A study by Chaudhury and Kantidas (2014) examined the trends in marketing of new insurance schemes and distribution in Indian life insurance sector. The study noted that life insurance companies globally usually take six to ten years to break even. However in India, the process has been delayed due to the 2008 financial crisis. More so, the capital intensive nature observed in high operating expenses like management costs, salaries, distribution expenses and technology expenses have contributed to delay in break even process. As a result it was noted that companies have resorted to outsourcing, computerization in order to reduce operating costs. In the study by Chaudhury and Kantidas (2014) it was established that clients' satisfaction was based on the premium policies and services provided by the insurance companies. High costs in administration charges and other hidden costs were noted to discourage uptake of such policies as unit linked insurance policies in life insurance companies in rural India.

In Kenya, Njuguna and Arunga (2012) examined risk management practices in micro-insurance. They noted that micro-insurance providers were using technology to reduce administration costs. On the other hand, Olila, Nyikal and Otieno (2015) investigated the demand for insurance among farmers in Kenya. It was noted that the price of insurance was a predictor of insurance uptake among farmers. It was established that the cost of the policy was negatively and statistically significant with the uptake for insurance. As such it was averred that higher premiums charged as a result of administrative and overhead costs discouraged farmers to purchase crop insurance especially among low income small scale farmers.

Ochieng (2013) evaluated bancassurance as a strategy for penetration in Kenya. Prior to bancassurance, it was noted that costs such as the sales costs would force insurance channels to charge uncompetitive premiums and therefore lose on customers. Further, high product prices and administrative costs of offering micro insurance also hindered development of micro-insurance. In the study however, it was noted that combining bancassurance's business with other business of the insurer can reduce economies of scale in administration costs which in turn enables the insurer to not only increase profitability but also offer competitive prices for products. Indeed, high transaction and administrative costs are noted to be some of the cardinal factors that affect micro-insurance business in Kenya.

A study was conducted by Odemba (2013) on life insurance products. The study revealed that the uptake of life insurance products in Kenya is influenced by certain factors. Among them were the poor customer service and complicated nature of the life insurance products. More so, poor integrity of the sales agents contributed to poor uptake of life insurance products. One of the recommendations of the study was that life insurance companies ought to improve integrity of the sales executives in order to enhance insurance uptake.

A research carried out in Europe indicates that the average insurance penetration increased to 7.68% in 2013 up from 7.61% in the previous year (Insurance Europe, 2014). The rise was as result of the increase in the uptake of life insurance resulting to growth of life insurance penetration. It is further noted that UK and the Netherlands have the highest penetration levels clocking 12.2% and 12.5% respectively. Latvia and Romania are noted to be some of the countries that have experienced low penetration rate in the recent past.

According to a report by KPMG (2014), income is the main determinant of insurance penetration. It is noted that South Africa's insurance penetration rate is 14.2% which is among the highest in the world. This is ascribed to factors such as stiff competition within the insurance market, large number of wealthy populace and trust among financial providers. However, it is noted that South Africa excluded, insurance penetration in Africa in both life and non-life insurance is low. The low penetration rate is noted to be as a result of mistrust of financial service providers, lack of incentive for multinationals to venture into African insurance market, informational asymmetry between financial providers and clientele and shallow financial markets among others.

A report by Price Waterhouse Coopers (PwC) (2014) observes that insurance penetration in Africa is exceptionally low. This is reaffirmed by a research conducted on insurance and re-insurance in Africa which indicated that Africa has experienced low insurance penetration as a result of either marginal markets or absence of life insurance industry (African Re-insurance Corporation, 2013). More so, it is noted that insurance penetration rates in East Africa Community countries is low as a result of underdeveloped insurance markets couple with inadequate legal infrastructure within the three countries and underdeveloped banking and capital markets which inhibit the growth of the insurance sector. However, it is noted that the African insurance market is growing rapidly with premium growth being projected for countries (PwC, 2014).

In Kenya, Odemba (2013) assessed the factors that influence the uptake of life insurance while focusing on the 13 life insurance companies. The descriptive and cross sectional survey research design was employed. The author lamented that insurance penetration in the country was only 1.3% despite the efforts by Association of Kenya Insurers



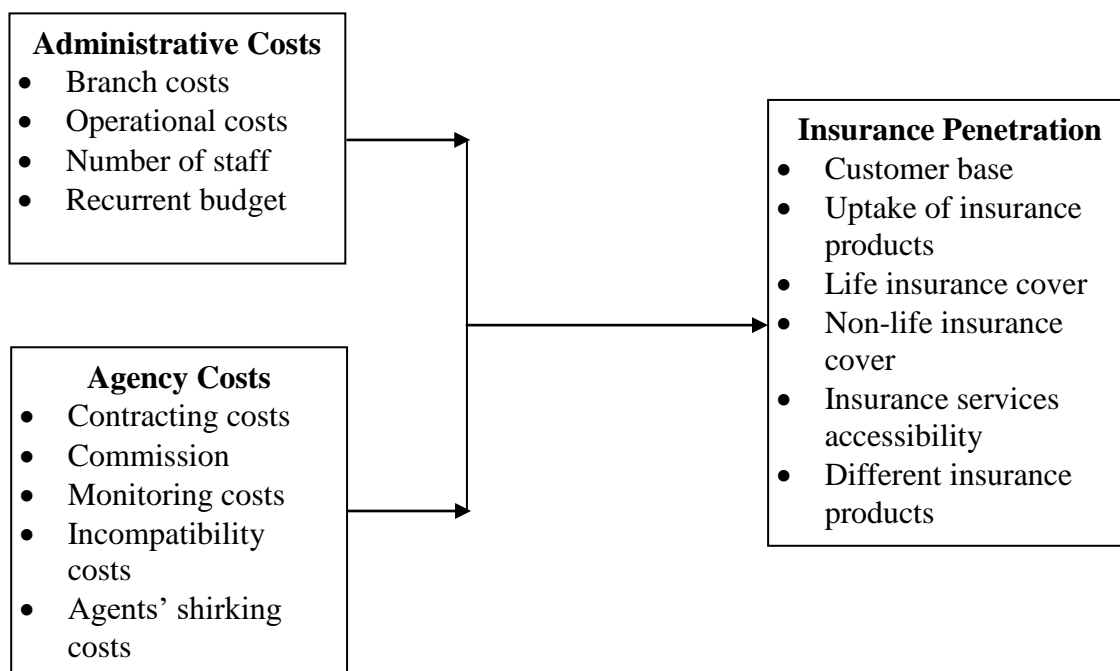
and Insurance Regulatory Authority to increase penetration. It is noted that penetration is dismally low compared to the developed countries. The study observed that the low penetration was as a result of high cost of premiums and the inefficiency of the insurance companies in settling claims. In addition, the complexity of life insurance products, lack of disposable income and lack of integrity among insurance sales agents contributed to low uptake of insurance products and hence low penetration. It was recommended that insurance companies ought to provide customized products that integrate both the risk coverage and savings element.

An earlier study by Kaguma (2011) on the customers' perception of service quality offered by life insurance companies indicated that customer service in the insurance companies had been poor. In addition, the slow pace of insurance companies in embracing social media, use of the internet and other channels to improve customer service has contributed to the dissatisfaction of clients who pull out resulting in poor penetration.

### Conceptual Framework

A conceptual framework is described as a diagrammatic representation of how variables of a study are believed to interact (Vaughan, 2008). Figure 1 shows the conceptual framework that guided this study. The study was guided by a set of two distinct variables which are independent and dependent variables. Independent variables included administrative costs and agency costs. Insurance penetration was the dependent variable. It was hypothesized that the aforesaid financial factors influenced insurance penetration.

Figure 1. Conceptual Framework



## METHODOLOGY

### Research Design

A research which is the roadmap of carrying out a research study (Kothari, 2004) should address the research problem and study objectives. This study adopted a cross-sectional survey research design. Cross-sectional surveys analyze a particular attribute or attributes in a defined population at a particular point in time. It is further posited that subjects, that is, respondents are contacted at a fixed point in time and relevant data obtained from them. The current study met these criteria, hence the choice of cross-sectional research design. This implies that the study was interested in views of insurance firms' employees regarding financial factors affecting insurance penetration at a given point in time when the study was carried out.

### Population

Target population is described as the population to which the findings of the study are generalized (Kothari, 2004). The members of this population should have similar characteristics. The target population for this study was employees working with insurance firms in Kenya. Accessible population refers to the population to which the study is delimited (Kothari, 2008). Accessible population was 417 employees working with insurance firms in Nakuru town.

### Sampling Technique and Sample Size

The large target population necessitated sampling. According to Kothari (2008) when the population (N) is equal to or exceeds 100, then sampling is important. A sample should be derived in such a way that it represents the study population. A scientific formula is necessary in calculating the size of a representative sample. In this regard, Nassiuma's (2000) formula was used to determine the size of the sample as shown.

$$n = \frac{NC^2}{C^2 + (N - 1) e^2}$$

Where, n represent the sample size, N the population, C the coefficient of variation ( $21\% \leq C \leq 30\%$ ), and e the precision level ( $2\% \leq e \leq 5\%$ ) respectively. The formula was used to determine the sample as illustrated below

$$n = \frac{417 \times 0.21^2}{0.21^2 + (417 - 1) 0.025^2}$$

$$n = 60.47$$

$$n = 61 \text{ respondents}$$

The sample (n) is thus 61 employees working with insurance firms in Nakuru town. Given that there were several insurance firms distributed across the town, stratified random sampling

method was adopted. This enabled all insurance firms to be considered in the study and also that representation to be proportionate to the number of employees working with each firm. Table 1 shows the sample distribution across the 11 insurance firms in Nakuru town.

Table 1: Sample Distribution

<b>Insurance Firms</b>	<b>N</b>	<b>Ratio</b>	<b>n</b>
1. Britam	46	0.11	7
2. Pioneer Insurance Co. Ltd	39	0.09	6
3. CIC Insurance Company	42	0.10	6
4. The Monarch Insurance company Ltd	37	0.09	5
5. Kenindia Assurance Company Ltd	34	0.08	5
6. Jubilee insurance company limited	29	0.07	4
7. First Assurance Company Ltd	38	0.09	6
8. AMACO	45	0.11	7
9. Directline Assurance Ltd	35	0.08	5
10. Pan Africa Life Assurance Ltd	31	0.07	4
11. UAP Insurance Co. Ltd	41	0.10	6
<b>Total</b>	<b>417</b>	<b>1.00</b>	<b>61</b>

### Research Instrument

Different authors advocate for use of questionnaires in survey studies (Kothari, 2004, Mugenda&Mugenda, 2009). In line with this assertion, the present study sought to obtain pertinent data from employees drawn from different insurance firms based in Nakuru town. The study, therefore, used a self-designed structured questionnaire to collect data from the respondents. Self-administered questionnaires have the benefits that there is a likelihood of high response rate when used (Kothari, 2004). The instrument constituted close-ended questions that addressed the study objectives. Besides, the general background questions, the rest were on a Likert scale.

### Pilot Testing

The research questionnaire was pilot tested. The pilot study involved about 10% the size of the sample (Kothari, 2004). This equaled to 9 respondents randomly drawn from insurance firms in Naivasha town. It was ensured that the participants in the pilot testing were not involved in the final study. The main aim of pilot testing the research instrument was to ensure that it was both valid and reliable for data collection.

### Validity Test of the Research Instrument

Validity is asserted to be the most important criteria for the quality of a test. A valid instrument measures what it is intended to measure (Kimberlin & Winterstein, 2008). There are various types of validity. The current study used the content validity of the research questionnaire where the university supervisor was consulted.

### Reliability Test of the Research Instrument

Reliability is a measure of internal consistency of a research instrument (Kimberlin & Winterstein, 2008). The study will adopt the Cronbach alpha coefficient to test the instrument's reliability. The instrument will be said to be reliable if all the study constructs return coefficients equal to or greater than 0.7. The instrument was found to be reliable as indicated in Table 2 where all the study constructs returned alpha coefficients greater than 0.7.

Table 2: Reliability Test Results

Constructs	Test Items	Alpha Coefficients
Administrative Costs	5	0.801
Agency Costs	5	0.739
Insurance Penetration	6	0.719

### Data Collection Procedure

After determining the validity and reliability of the research questionnaire, the researcher sought consent of the University and the management of insurance firms in Nakuru town. The questionnaires were administered on the sampled respondents by the researcher in person and also through research assistants.

### Data Processing and Analysis

The data collected were coded before being analyzed with the help of the Statistical Package for Social Sciences (SPSS) version 21 software. The analysis constituted both descriptive statistics and inferential statistics. Descriptive statistics included frequencies, percentages, means and standard deviations. Inferential statistics included Pearson's Product Moment Correlation (PPMC) and multiple regression analysis. The study findings were presented in form of statistical tables. The following multiple regression function was used.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where: Y represents Insurance Penetration

$\beta_0$  represents Constant

$X_1$	represents	Administrative costs
$X_2$	represents	Agency costs
$\varepsilon$	represents	Error Term
$\beta_1, \beta_2$	represent	Regression Coefficients for independent variables

## EMPIRICAL FINDINGS AND DISCUSSIONS

### Response Rate

A total of 61 questionnaires were administered on the sampled respondents. Out of this number, 57 were successfully filled and collected from the respondents. This translated to 93.44% response rate. According to Nulty (2008) the response rate was acceptable as it had surpassed the 70% response rate threshold.

### Descriptive Findings and Discussions

The study examined the views of the sampled employees of insurance firms in Nakuru town regarding issues touching on insurance penetration. The results are in line with a 5-point Likert scale where integers 5 to 1 represent strongly agree to strongly disagree respectively.

### Administrative Costs

The study put into perspective the opinions of respondents regarding administrative costs associated with insurance penetration. Table 3 shows the pertinent findings.

Table 3: Descriptive Statistics for Administrative Costs

	n	Min	Max	Mean	Std. Dev
Insurance firms incur huge costs when remunerating employees	57	1	5	3.93	1.348
Insurance firms incur huge costs when setting up new branches	57	1	5	3.86	.667
The recruitment budget for insurance firms has reduced in the recent past	57	1	5	3.84	1.066
Insurance firms have drastically reduced operational costs	57	1	5	2.21	1.176
Insurance firms employ minimal number of staff especially at branch level	57	1	2	1.98	.132

The study noted that employees were in agreement (mean  $\approx$  4.00; mean  $\approx$  1.000) that insurance firms incur huge costs when remunerating employees and when setting up new branches; and

that the recruitment budget for insurance firms has reduced in the recent past. It was, however, disagreed that insurance firms have drastically reduced operational costs (mean = 2.21; mean = 1.176), and that these firms employed minimal number of staff especially at branch level (mean = 1.98; std dev = 0.132).

The findings of this study were corroborated by earlier findings in a study by Chaudhury and Kantidas (2014) which noted that the capital intensive nature of insurance firms is reflected in high operating expenses like management costs, salaries, distribution expenses and technology expenses. The study further observed that high costs in administration charges and other hidden costs were noted to discourage uptake of such policies as unit linked insurance policies in life insurance companies in rural India.

### **Agency Costs**

The study further analyzed the views of the sampled employees regarding agency costs incurred by insurance firms in Nakuru town. The pertinent results of the analysis are as shown in Table 4.

Table 4: Descriptive Statistics for Agency Costs

	N	Min	Max	Mean	Std. Dev
Insurance firms incur costs when contracting agents	57	1	5	4.37	.879
Insurance agents are paid a commission by insurance firms	57	2	5	4.25	.662
Shirking or negligence of insurance agents is costly to insurance firms as they are likely to incur losses	57	1	5	3.72	.774
There are costs that insurance firms incur when monitoring the activities of insurance agents	57	1	4	3.70	.680
The incompatibility of insurance firms' interests and those of insurance agents is costly	57	1	5	3.40	1.193

The study revealed that employees of insurance firms in Nakuru town concurred that insurance firms incurred costs when contracting agents (mean = 4.37; std dev = 0.879); insurance agents were paid a commission by insurance firms (mean = 4.25; std dev = 0.662); shirking or negligence of insurance agents was costly to insurance firms as they were likely to incur losses (mean = 3.72; std dev = 0.774); and that there were costs that insurance firms incurred when monitoring the activities of insurance agents (mean = 3.70; std dev = 0.680). it was, however,

not clear if the incompatibility of insurance firms' interests and those of insurance agents was costly (mean = 3.40; std dev = 1.193). The findings supported earlier findings in a study conducted by Odemba (2013) on life insurance products. The study had revealed that poor integrity of the sales agents contributed to poor uptake of life insurance products.

### ***Insurance Penetration***

Lastly, the study sought the opinions of the sampled employees regarding issues touching on insurance penetration in Nakuru town. The results of the pertinent analysis are as shown in Table 5.

Table 5: Descriptive Statistics for Insurance Penetration

	n	Min	Max	Mean	Std. Dev
More and more customers can now access insurance services	57	2	5	4.65	.641
Uptake of non-life insurance products is on the rise	57	1	5	4.47	.908
Insurance firms offer customers various insurance products	57	1	5	3.84	.702
Uptake of insurance products has been on the rise over the past few years	57	2	5	3.70	.755
Our firm enjoys a large number of customers	57	1	5	2.98	.551
Uptake of life insurance cover is on the rise	57	1	5	2.09	1.714

Respondents absolutely admitted (mean = 4.65; std dev = 0.641) that more and more customers could access insurance services. It was also agreed (mean = 4.47; std dev = 0.908) that uptake of non-life insurance products was on the rise. In addition, respondents concurred (mean 4.00; std dev < 1.00) that insurance firms offered customers various insurance products and that the uptake of insurance products had been on the rise over the past five years. Respondents were not sure (mean = 2.98; std dev = 0.551) whether the firm enjoyed a large number of customers. It was disagreed (mean = 2.09; std dev = 1.714) that uptake of life insurance cover was on the rise.

The findings of the study depart from the KPMG's (2014) report that insurance penetration in Africa in both life and non-life insurance is low. An earlier study still corroborated KPMG's report by noting that insurance penetration in Kenya was only 1.3% despite the efforts by Association of Kenya Insurers and Insurance Regulatory Authority to increase penetration of insurance.

## Inferential Findings and Discussions

This section puts into perspective the relationship between the independent variables and the dependent variable and also the influence of the independent variables on the dependent variable. Therefore, the section outlines the results of both correlation and multiple regression analysis.

### *Relationship between Administrative Costs and Insurance Penetration*

The study examined the relationship between administrative costs and insurance penetration among insurance firms in Nakuru town. The results of correlation analysis are shown in Table 6.

Table 6: Correlation between Administrative Costs and Insurance Penetration

		Insurance Penetration
<b>Administrative Costs</b>	Pearson Correlation	-.422**
	Sig. (2-tailed)	.001
	n	57

\*\* . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 6 the relationship between administrative costs and insurance penetration was negative, moderately strong and significant ( $r = -0.422$ ;  $p < 0.01$ ). The results implied that as administrative costs increased the insurance penetration reduced and the reverse was true. As such, in order to ensure insurance penetration was enhanced, the insurance firms were supposed to ensure that administrative costs were reduced.

### *Relationship between Agency Costs and Insurance Penetration*

The study further analyzed the relationship between agency costs and insurance penetration. The results of the correlation analysis of the foregoing variables are as shown in Table 7.

Table 7: Correlation between Agency Costs and Insurance Penetration

		Insurance Penetration
<b>Agency Costs</b>	Pearson Correlation	-.376**
	Sig. (2-tailed)	.004
	n	57

\*\* . Correlation is significant at the 0.01 level (2-tailed).



The results of correlation analysis (Table 7) indicated that the relationship between agency costs and insurance penetration among insurance firms in Nakuru town was negative, moderately strong and significant ( $r = -0.376$ ;  $p < 0.01$ ). The foregoing implied that as agency costs increased insurance penetration reduced, and as those costs reduced insurance penetration increased. Therefore, in order to enhance insurance penetration, it was imperative for insurance firms to reduce associated agency costs.

### ***Influence of Financial Factors on Insurance Penetration***

The study examined the effect of financial factors under investigation (administrative costs, marketing costs, return on assets and agency costs) on insurance penetration. The foregoing was achieved through multiple regression analysis. The pertinent results are as shown in Table 8, Table 9 and Table 10.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605 <sup>a</sup>	.366	.317	.71660

a. Predictors: (Constant), Administrative Costs, Agency Costs

As shown in Table 8, the relationship between financial factors under investigation and insurance penetration was positive and strong ( $R = 0.605$ ). The foregoing relationship as shown in Table 9 was found to be statistically significant ( $F = 7.503$ ;  $p < 0.01$ ). More so, as shown in Table 8, 31.7% of insurance penetration could be attributed to the financial factors under investigation, that is, administrative costs and agency costs ( $r^2 = 0.317$ ). The findings underscored the importance of the examined financial factors in insurance penetration.

Table 9: ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	15.412	4	3.853	7.503	.000 <sup>a</sup>
Residual	26.703	52	.514		
Total	42.115	56			

a. Predictors: (Constant), Administrative Costs, Agency Costs

b. Dependent Variable: Insurance penetration

Table 10 outlines the results of regression analysis as shown by regression coefficients.

Table 10: Regression Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	t Sig.
1 (Constant)	1.080	.403		2.678 .010
Administrative Costs	-.046	.137	-.052	-.333 .741
Agency Costs	-.040	.133	-.045	-.302 .764

a. Dependent Variable: Insurance penetration

The interpretations of the findings shown in Table 10 follow the multiple regression model shown.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

$$Y = 1.080 - 0.046X_1 - 0.040X_2$$

The findings indicated that in order for insurance penetration to be enhanced by 1 unit, administrative costs and agency costs were supposed to be reduced by 0.046 unit and 0.040 unit respectively. This ought to have held 1.080 constant. The findings indicated that administrative costs ( $t = -0.333$ ;  $p > 0.05$ ) and agency costs ( $t = -0.302$ ;  $p > 0.05$ ) did not have significant effect on insurance penetration. In general, the two financial factors under investigation had a significant effect on insurance penetration ( $t = 2.678$ ;  $p > 0.05$ ). From the findings both the first and the second null hypotheses failed to be rejected.

## SUMMARY

The study noted that insurance firms incur huge costs when remunerating employees and when setting up new branches; and that the recruitment budget for insurance firms has reduced in the recent past. It was, however, disagreed that insurance firms have drastically reduced operational costs and that these firms employed minimal number of staff especially at branch level. The study found that administrative costs increased the insurance penetration reduced.

The study revealed that employees of insurance firms in Nakuru town concurred that insurance firms incurred costs when contracting agents, insurance agents were paid a commission by insurance firms, shirking or negligence of insurance agents was costly to insurance firms as they were likely to incur losses and that there were costs that insurance firms incurred when monitoring the activities of insurance agents. It was, however, not clear if the

incompatibility of insurance firms' interests and those of insurance agents was costly. The study revealed that as return on assets increased insurance penetration also increased and vice versa.

The study found out that more and more customers could access insurance services. It was also agreed that uptake of non-life insurance products was on the rise. In addition, it was concurred that insurance firms offered customers various insurance products and that the uptake of insurance products had been on the rise over the past five years. It was unclear whether the firm enjoyed a large number of customers. It was disagreed that uptake of life insurance cover was on the rise. The study observed that return on assets was the most important financial factor that determined insurance penetration amongst insurance firms in Nakuru town.

## **CONCLUSIONS**

The study concluded that insurance firms incur huge administrative costs when remunerating their employees and when setting up new branches. Running the branches of the aforesaid firms was concluded to be quite expensive. It was further inferred that the recruitment budget for insurance firms has reduced in the recent past. Administrative costs were concluded to have a significant relationship with insurance penetration. However, the effect was not statistically significant.

The study inferred that insurance firms incurred costs when contracting agents. The foregoing costs were deduced to emanate from costs of contracting insurance agents. It was also concluded that shirking or negligence of insurance agents was costly to insurance firms. The study concluded that there were costs that insurance firms incurred when monitoring the activities of insurance agents. According to the findings, it was concluded that agency costs were significantly related to insurance penetration. However, their effect on insurance penetration was not statistically significant.

## **RECOMMENDATIONS**

The study recommended that insurance firms should minimize the number of their employees in order to cut down the administrative costs. It is also suggested that insurance firms ought to embrace technology in order to reduce operational costs that are likely to reduce on their profitability.

The insurance firms are advised to carry out a thorough analysis of prospective agents in order to contract only those ones that are efficient enough. This would address the issues of shirking on the part of agents and as such address associated agency costs.

## LIMITATIONS

The study faced a couple of challenges. Some employees working with insurance firms in Nakuru town were not willing to participate in the study for fear of probable reprisals from their bosses. The researcher addressed this challenge by assuring them that the study was for academic purposes and that the data collected were to remain confidential. More so, some managers of the insurance firms were skeptical in allowing the research to be carried out in their respective firms. The researcher informed them that the findings of the study were likely to benefit the firms and that there was willingness to share the findings with them and any other interested parties.

## SUGGESTIONS FOR FURTHER STUDIES

The study recommends further research on the following subjects.

- i. The influence of bancassurance on insurance penetration in Kenya
- ii. Other financial factors besides the ones investigated in this study that may affect insurance penetration in Kenya
- iii. Effect of financial factors on financial performance of insurance firms in Kenya.
- iv. Effect of financial factors on the growth of insurance firms in Kenya.

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