



## **Effects of Commission Payment on Growth of Insurance: The Case of Insurance Firms in Kenya**

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### **Abstract**

Commission payment is one of the simplest forms of incentive in the insurance industry. The insurance industry has experienced high competition for market share that has compelled insurance firms to hiring the more skilled and experienced sales persons to promote their products. Consequently, this has led to payment of high commission packages and bonuses to the salespersons that has become unsustainable for growth of insurance firms. The battle for salespersons in search for growth in the crowded market is egging insurance firms to warn of losses given that the bulk of the players are using commission payment as an arsenal for insurance market share growth. The general objective of this study was to determine the effects of commission payment on growth of insurance firms in Kenya; specific objectives are to determine the effect of straight commission payment on the growth of insurance firms in Kenya. To determine the effect of retainer plus commission payment on the growth of insurance firms in Kenya, to determine the effect of residual commission payment on the growth of insurance firms in Kenya, and to determine the moderating effect of firm size on the relationship between commission payment and growth of insurance firms in Kenya. Descriptive research design was employed in this study. The study conducted a census of 45 insurance firms regulated by the Insurance Regulatory Authority. The years covered were from 2012-2016. Secondary data was used for analysis. The study

employed a dynamic panel data regression model to test on the relationship between the variables. Regression results showed that straight commission rate had a negative coefficient of (-0.001644, 0.000), retainer plus commission payment had a positive coefficient of (0.576955, 0.0102), residual commission rate had a negative coefficient of (-0.220136, 0.1650) and firm size had a positive coefficient of (0.676398, 0.0102). The study concluded that straight commission rate, retainer plus commission, residual commission rate and firm size affect the growth of insurance firms. The study therefore recommends that the management of insurance firm should moderate the commission payments in consideration with the firm's ability and individual agent performance. Finally, the study recommends that the management should adopt expansion strategies in the market share as larger insurance firms enjoys economies of scale and thus able to maintain growth.

**Keywords:** *Commission Payment, Insurance Growth & Insurance Firms in Kenya.*

## 1.0 Introduction

### 1.1 Background of the Study

Commission payment is one of the generic forms of incentive in the insurance industry. For every 100 per cent of premiums an insurance firm might pay up to 40 per cent to a representative. This may be in addition to, or instead of, base pay (retainer). (Rees, 2006). Salespersons play a key role in insurance firms (Milkovich, 2013). They are the main Face of the insurance firms, with primary responsibility for generating sales – hence profits – and for initial customer service. The quality of the salesperson can be the difference between making a sale and not. Hunter *et al.* (2014) found that top performers in jobs of medium complexity, such as sales persons, are 12 times more productive than bottom-level performers, while the best in the most complex jobs, such as insurance sales are 127 per cent more productive than an average performer. Superior performance is in part linked to individual personality and skills.

According to IRA, there is a general confidence within the insurance industry of continued stability spurring insurance growth with moderate risk exposure that may not have any major destabilizing impact on industry performance. The main achievement reported in the recent years include: business growth, product development, claims management. The key drivers of the insurance industry include: marketing, staffing, good management, product development, customer service, claims management and automation through ICT software system installation and usage. Insurance firms' profitability is influenced by both internal and external factors. Whereas internal factors focus on an insurer's-specific characteristics, the external factors concern both industry features and macroeconomic variables. The profitability of insurance companies is also appraised at the micro and macro levels of the economy. The micro level refers to how firm-specific factors such as size, capital, efficiency, age, and ownership structure affect profitability. The micro and macro levels refer to the influence of support-institutions and macroeconomic factors, respectively (IRA, 2017).

Despite the fact that insurance has been practiced for over a thousand years' world over, it is still a fact that insurance uptake is still very low, not only in Kenya but the world over. The global Insurance industry faced difficult economic environment in 2011. Overall gross premium declined by 0.8% in real terms. Premium growth in the industrialized countries was negative 1.1%. Emerging markets had an average growth of 1.3%, (Swiss Re-sigma, 3/2012). Statistics show that

Global life insurance premiums shrank by 2.7% in 2011. Advanced markets contracted by 2.3%, with the sharpest decline observed in Western Europe (9.8%). The US market recorded moderate growth of 2.9%. Global non-life insurance premiums rose by 1.9% in 2011 (AKI report, 2011). Insurance penetration is a global problem with developed markets like UK at about 11% and USA at about 8.6% (Swiss Re, Economic Research and Consulting, 2012).

## **1.2 Statement of the Problem**

The insurance industry has experienced high competition for market share that has compelled insurance firms to hiring the more skilled and experienced sales persons to promote their products. Consequently, this has led to payment of high commission packages and bonuses to the salespersons that has become unsustainable for growth of insurance firms. The battle for salespersons in search for growth in the crowded market is egging insurance firms to warn of losses given that the bulk of the players are using commission payment as an arsenal for insurance market share growth (Finkle, 2011). Competition for market share by many insurance players has led to price wars with has led to some insurers charging unsustainable premiums. Moreover, consumers are getting smarter and expect the best from insurers to fulfill their demands and satisfy their needs. This has compromised service delivery, as the insurers are not able to fund infrastructure for efficient delivery of services and claims settlement (Headen, 2012).

Majumdar (2013) investigated the impact that firm size has on profitability and productivity of insurance firms in India. While controlling for other variables that can influence firm performance, he found evidence that larger firms are less productive but more profitable. Similarly, Liargovas and Skandalis (2013) did a study on the financial growth and size of insurance firms in Greece that found out that smaller firms grew at a lower rate than larger firms in revenues. The studies present a contextual gap as this study focused on insurance firms in Kenya.

In Kenya, Gunnasson (2014) conducted a study that focused on the effect of commission based wages strategies adopted by Kenyan insurance companies to alleviate low insurance penetration and found out several strategies used including incentives to sales agents by the companies in order to push for more sales. Similarly, Kihara (2014) carried out a study that focused on the methods adopted by the insurance regulatory authority in enhancing growth in the insurance industry in Kenya. Relatedly, Nyberg, Pieper and Trevor (2016) carried out a study on commission pay performance's effect on future sales employee performance. The studies present a conceptual gap as they focused on strategies and methods adopted in insurance growth while this study focused on effects of commission payment on insurance firm growth.

The foregoing studies done across different contexts, located in diverse geographical places, characterized by diverse global economic factors indicate different findings that relate to commission payment and growth. The aim of this study is not to report similar or different findings but to provide deeper understanding the effects of commission payment on the growth of insurance firms in Kenya. The study used of straight commission, retainer plus commission, residual commission payment, moderating effect of firm size on the relationship between commission payment and growth of insurance firms in Kenya.



### **1.3 Objectives of the Study**

- i) To determine the effect of straight commission payment on the growth of insurance firms in Kenya.
- ii) To determine the effect of retainer plus commission payment on the growth of insurance firms in Kenya.
- iii) To determine the effect of residual commission payment on the growth of insurance firms in Kenya.
- iv) To determine the moderating effect of firm size on the relationship between commission payment and growth of insurance firms in Kenya.

### **1.4 Research Hypothesis**

**H<sub>01</sub>:** There is no significant effect of straight commission payment on the growth of insurance firms in Kenya.

**H<sub>02</sub>:** There is no significant effect of retainer plus commission payment on the growth of insurance firms in Kenya.

**H<sub>03</sub>:** There is no significant effect of residual commission payment on the growth of insurance firms in Kenya.

**H<sub>04</sub>:** There is no significant moderating effect of firm size on the relationship between commission payment and growth of insurance firms in Kenya.

## **2.0 Literature Review**

### **2.1 Theoretical Framework**

#### **2.1.1 Agency Theory**

Agency theory was developed as a framework for analyzing conflicting interests between key stakeholders, in addition to the development of mechanisms for resolving conflicts (Tipuric, 2008). Besides prevalent contribution within discipline of corporate governance, the theory is extensive and may be applied in every situation in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory attempts to describe the relationship in terms of behavioral characteristics and provides mathematics instrument for evaluating situations between parties that lack mutual trust. The theory describes economic exchange relation between principal and agent. Principal-agent relationship is described using the metaphor of a contract. The Agency theory objective is to determine optimal contract between principal and agent. The agent (manager or employee) tries to maximize personal gains by satisfying principal's economic objectives and agent's commitment level is function of perceived reward for satisfying principal's objectives (Jensen and Meckling, 1976).

In insurance, Agency theory handles numerous situations in which the salesperson acts on the behalf of the insurer. Insurance firms are given the responsibility of settling claims and also generating shareholder wealth. However, its business practice forces it to incur risk by issuing loans – some of which are outside the comfort level of the firm. Insurance advisors and portfolio managers are agents on behalf of their clients and the client's investments. Finally, an insurer may be in charge of protecting and safeguarding assets that do not belong to them. Even though the insurer is tasked with the job of taking care of the assets, the salesperson has less interest in protecting the goods than the actual owners.

Donaldson (1990) criticized the agency theory dominance in terms of methodology individualism, narrow-defined motivation model, regressive simplification, disregarding other research,

ideological framework, organizational economics and corporate governance's defensiveness. The focus of agency theory's studies is individual consistent with rational, economic model of human behavior. However, absolute explication of every organizational activity should not be considered as equivalent to individual activity and that represents essential critic of structuralism.

From corporate governance perspective, successful resolution of agency problem (if possible) significantly reduces potential and validity of agency theory in analysis of governing relations (Gale, 2010).

### **2.1.2 Maslow's Hierarchy of Needs**

The Maslow's hierarchy of needs is one of the best known theories of motivation. According to Maslow (1943), our actions are motivated in order to achieve certain needs. The concept of hierarchy suggests that people are motivated to fulfill basic needs before moving on to other, more advanced needs. Maslow believed that people have an inborn desire to be self-actualized, that is, to be all they can be. In order to achieve these ultimate goals, however, a number of more basic needs must be met such as food, safety, love and self-esteem. The Maslow's hierarchy is displayed as a pyramid with the lowest levels of the pyramid made up of the most basic needs, while the most complex needs are at the top of the pyramid. Cherry (2018), the hierarchy shows that's as people progress up the pyramid, needs become increasingly psychological and social. Soon, the need for love, friendship, and intimacy become more importance. Further up the pyramid, the need for personal esteem and feels of accomplishment take priority.

A study by Dimitrelis (2003) identified a number of flaws within Maslow's theory that must be noted. For example, Maslow indicates that all people could reach self-actualization, yet outcomes from his own research indicated that only a limited number of well-known person's exhibit characteristics of the self-actualizing individual. Another example is that there are some people in whom self-esteem appears to be more significant than love. This most common setback in the hierarchy is usually due to the development of the belief that the person who is most likely to be loved is a powerful or strong person, than the other who motivates respect of fear and who is aggressive or self-confident. Further, according to Cuirrin (2007), there is little research evidence in support of the theory. Moreover, there is no backup evidence to suggest that human needs are classified into five categories, or that these categories are structured in any hierarchy.

This theory is related to this study because a motivated workforce will be inspired to be more creative, productive and loyal hence increased employee performance. Employees in general are goal seeking and look for challenges and expect positive re-enforcement at all times. Hence, it could only be of benefit if organizations could provide these rewards and factors. As noted earlier, albeit employees are financially motivated, motivation could be seen as a moving target. What motivates differs among different people and may even change for the same person over a given period of time, developments within the modern organization has probably made motivating employees even more difficult due to the nature of every individual, behavior increasing the complexity of what can really motivate employees.

### **2.1.3 Expectancy Theory**

The expectancy theory (Vroom, 1964) has been the most broadly tested and there seems to be a common consensus that it delivers a resounding psychological validation for why reward for performance plans can boost employee efforts, and accepting of the general conditions under which the plan works best. The theory envisages that employee motivation will be boosted, and

the possibility of desired performance improved under reward for performance plans under these circumstances: employees understand the performance plan goals and view them as feasible given their own abilities, skills, and restrictions posed by task structure and other aspects of the organization; there is a clear link between performance and salary increases that is regularly communicated and followed through; and employees value salary increases and view the salary increases connected with a plan as significant.

According to Mwitwa (2002) the expectancy theory entails the amount to which increased effort is alleged to lead to improved job performance that is the likelihood that effort or action will each to an outcome. Robbins (2005) mentioned that the expectancy theory claims that the strength of a tendency to act in a certain way depends on the strength of an anticipation that the act will be followed by a given consequence and on the attractiveness of that consequence to the individual.

The expectancy theory demonstrates that an employee will be inspired to exercise a great level of determination when he/she trusts that effort will lead to a good performance evaluation; that a good evaluation will lead to organizational rewards such as a gratuity, pay increase, or an advancement; and that the rewards will please the employee's individual goals (Shilongo, 2013).

In application, insurance firm managers and supervisors look into the insurance industry norms to formulate commissions and compensation policies. Those policies are then resistant to change even in the face of major changes in job content and technology. Institutional explanations are also consistent with the use of rules of thumb, which is frequent in compensation practice. Institutional explanations of compensation policies depend on understanding the insurance industry and the firm traditions.

The critics on the expectancy theory are an extension of Vroom (1964) who admitted that the theory should be updated with new research findings. One of the major criticisms of the theory is its simplicity. In the sense that it does not explain the different levels of efforts acted out by an individual. There is also the assumption that a reward will entice an employee to expand greater efforts in order to obtain the reward, but neglect the fact that the reward in question could have a negative effect for the individual. Other disadvantages of the theory are that it does not take the emotional state of the individual into consideration, the individual's personality; abilities, skills, knowledge as well as past experience are factors affecting the outcome of the model. Further, the theory is a perception based model. The manager needs to guess the motivational force (the value) of a reward for an employee. In addition, it is difficult to implement in the group environment (Leadership-Central, 2018).

## **2.2 Empirical Review**

Waiyaki (2017) studied on the effect of motivation on the performance of employees using the case of Pam Golding Properties, Nairobi. The study was guided by the research questions as what is the impact of motivational goal setting on performance of employees. What is the effect of financial incentives on employee performance? How do recognition and reward programs affect performance? A descriptive research design was adopted with Pam Golding Properties being the focus organization. The population of this study comprised of all the employees of Pam Golding Properties in Nairobi. The census technique was used in the study to select the respondents from the list of employees provided by the human resource department in order to capture the entire population, thus, the sample size of the study was 50. The data-collecting instrument that was used was a tailor-made structured questionnaire developed by the researcher. The study revealed that the use of monetary rewards like base pay, commission and bonus was significant. The study

concluded that money was a highly motivating factor for the employees and management should look into increasing the monetary and benefits package they give. The study recommended that management re-evaluates and re-engineers the current recognition and reward program and therefore change the perception of the employees about it.

Gunnarson and Akesson (2014) conducted a study on the effect of commission-based wages with the real estate industry. The study investigated how the wage system was used, and how well established the tradition was. Ten agents from six different firms were interviewed. Half of the respondents were managers and half were employees. Furthermore, a survey was sent to four schools graduating real-estate agents. The main finding was that the current system has many good parts which support its use and that there are logical explanations for why the system has been utilized. However, there were many indicators pointing towards a change being needed and demanded. The study noted that commission based wage system has been successful and efficient within the industry for a long time.

To explore the impact of remuneration on employees' performance Ojeleye (2017) investigated the impact of remuneration on employees' performance. Eighty-three employees of Abdul Gusau polytechnic and state college of education both in Zamfara state were handed structured questionnaire to solicit data on remuneration and performance. The dependent variable was employees' performance while the independent variable was remuneration (salary/wages, bonus/incentives). The study employed the Pearson correlation and multiple regression model to analyze the data using SPSS and E-views 9.0. The findings suggested that there is a strong and positive relationship between remuneration and employees' performance and that salary/wage and bonus/incentives serve as a form of motivation to the employees. The study recommends prompt payment of salaries, wages and all entitlements and encouragement of employees' participation in pay determination.

Doyle (2018) on different types of commission pay highlighted that the residual commission which is common in insurance companies where in the best scenario a sales person might continue to receive a residual commission even after moving on to another company. The findings recommended that those who successfully work in a commission-based position should ensure they have excellent communication skills and have a good foundation to build the sales skills necessary for success. Another recommendation was that an employee should be willing to put in whatever time it takes to learn about the product and the customers in order to provide the level of service required to excel in commission sales.

Tahir and Razali (2011) using the firm size as one of the predictor variable, examined the relationship between enterprise risk management and firm value. The findings from the study indicated that there is positive relationship between firm size and firm value. The size influences a firm growth because large firm can increase their current size very fast by accumulating earnings from past growth and this enhances their value. In terms of structure which is firm's characteristics, institutional shareholders can influence any decision by management of firms. The accumulation of funds assists in putting up effective risk management structures.

### **3.0 Research Methodology**

The study used census survey research design. The study conducted a census of 45 insurance firms regulated by the Insurance Regulatory Authority. The justification here is on the basis that there are only a few firms. The researcher used a document review guide to extract and compile the required secondary data for analysis from the insurance database. The secondary data encompassed

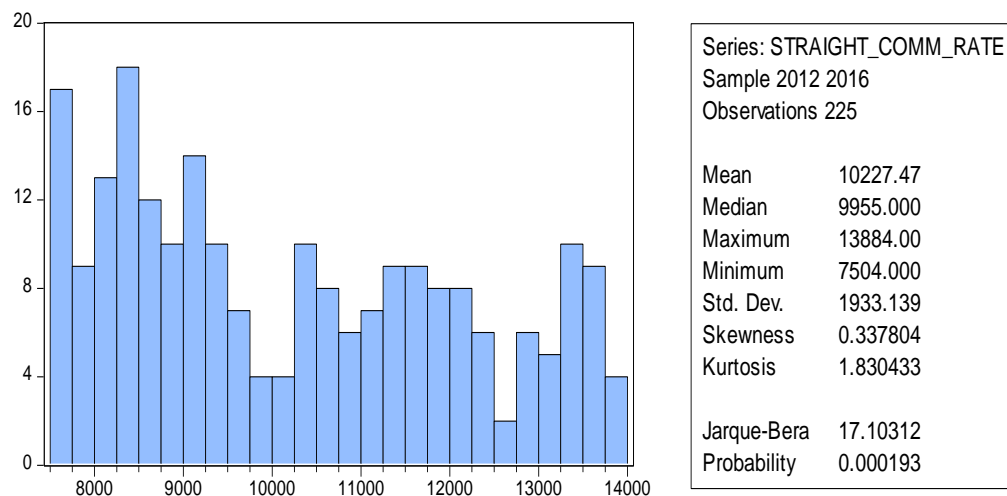


panel data that consists of time series and cross-sections. A combination of time series with cross-sections enhances the quality and quantity of data to levels that would otherwise be impossible to achieve with only one of the two dimensions (Gujarati, 2003). Panel diagnostics test done included Hausman Test, Normality Tests, Stationarity Test and Multicollinearity test. The descriptive statistics was presented in percentages and frequencies while the inferential statistics included diagnostics tests, Pearson correlation and multiple linear regression model. The multiple linear regression models was used to measure the relationship between the independent variables and the dependent variable that are explained in the model.

## 4.0 Results and Discussion

### 4.1 Descriptive Statistics

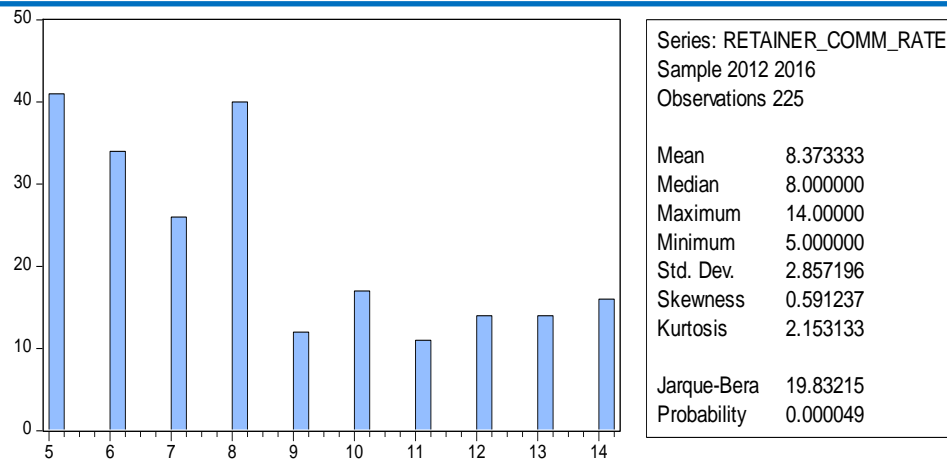
This section provides a summary of the data obtained for each of the variables in this study. The descriptive statistics employed were; mean, median, maximum and minimum values, standard deviation, skewness, kurtosis, and the results of the Jarque-Bera test for normality. These statistics are discussed in Figure 1 to 4.



**Figure 1: Straight Commission Rate Descriptive Statistics**

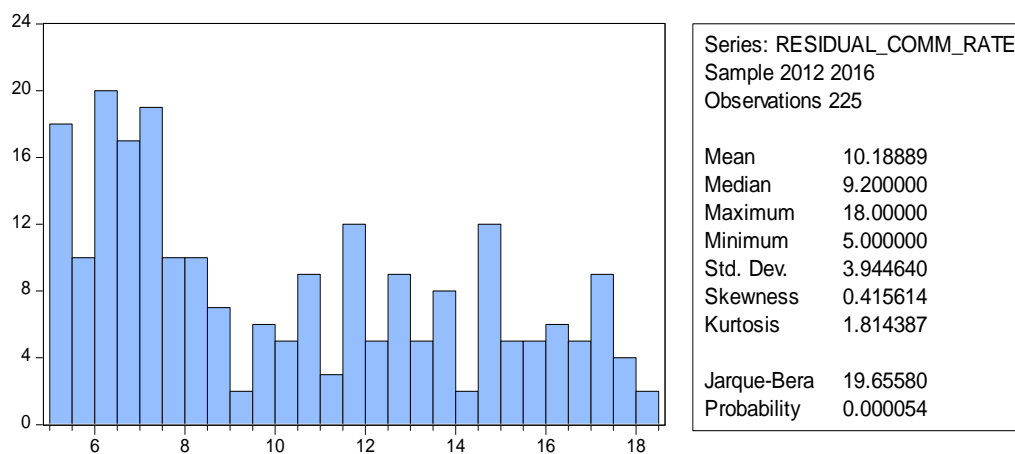
Figure 1 shows that the minimum and maximum values of the straight commission 7504 and 13884 respectively. The mean value for straight commission was 10227.47. The standard deviation of 1933.14 indicated that there were variation in straight commission rate overtime.

The Jarque-Bera test had a probability value of 0.000193, which imply that at 5% significance level, the null hypothesis of normality of the data is rejected and the data is considered significantly different from normal. However, the data has a degree of skewness of 0.3378 and Kurtosis of 1.830, which according to Kline (2011) is considered approximately normal. Kline (2011) suggests that skewness and kurtosis values that lie within a range of  $\leq 3$  and  $\leq 3$  respectively are considered approximately normal. This data can therefore be subjected to parametric statistical analysis.



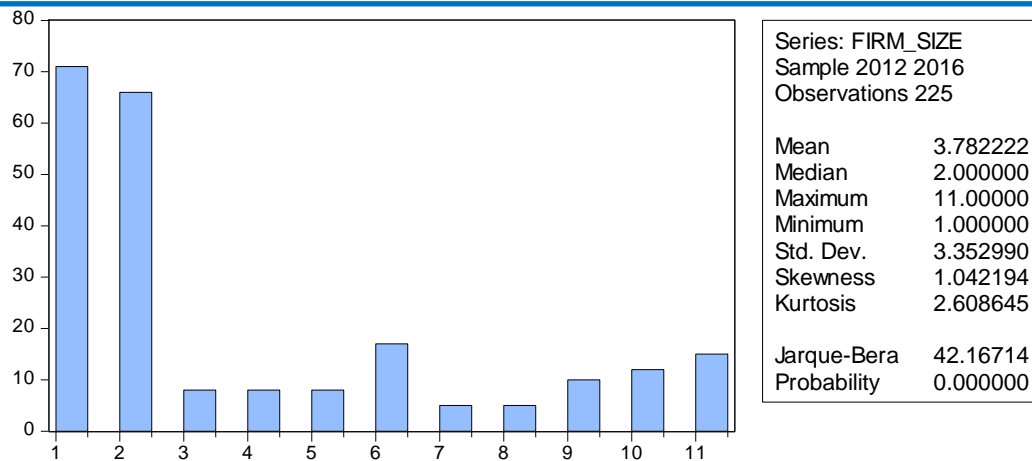
**Figure 2: Retainer Commission Rate Descriptive Statistics**

From Figure 2, the minimum and maximum value of retainer commission rate was 5% and 14% respectively. The mean value for retainer commission rate was 8.37%. The standard deviation of 2.85 indicated that there was variation in retainer commission rate over time. The Jarque-Bera test had a probability value of 0.00049 which imply that at 5% significance level the null hypothesis of normality of the data is rejected and the data is considered to be significantly different from normal. Additionally the data has a degree of skewness of 0.59123 and Kurtosis of 2.1531, which according to Kline (2011) is considered approximately normal.



**Figure 3: Residual Commission Rate Descriptive Statistics**

From Figure 3, the minimum and maximum value of residual commission rate was 5% and 18% respectively. The mean value for residual commission rate was 10.19%. The standard deviation of 3.95 indicated that there was variation in residual commission rate over time. The Jarque-Bera test had a probability value of 0.00054, which imply that at 5% significance level, the null hypothesis of normality of the data is rejected and the data is considered significantly different from normal. Additionally the data has a degree of skewness of 0.415614 and Kurtosis of 1.814387, which according to Kline (2011) is considered approximately normal.



**Figure 4: Firm Size Descriptive Statistics**

From Figure 4, the minimum and maximum value of firm size by market share was 1% and 11% respectively. The mean value for firm size by market share was 3.78%. The standard deviation of 3.35 indicated that there was variation in firm size by market share over time. The Jarque-Bera test had a probability value of 0.0000, which imply that at 5% significance level, the null hypothesis of normality of the data is rejected and the data is considered significantly different from normal. Additionally the data has a degree of skewness of 1.042194 and Kurtosis of 2.60865, which according to Kline (2011) is considered approximately normal.

## 4.2 Panel Diagnostic Tests

Panel diagnostic tests were done to check for any violations of the assumptions underlying the panel regression model and to select the appropriate estimation model based on the results of the diagnostic tests. The main objective of these tests was to avoid spurious regression results.

### 4.2.1 Hausman Test

This test was done to determine whether a random or fixed effects model is suitable for the data. It tests the null hypothesis of a random effects model against an alternative hypothesis of a fixed effects model.

**Table 1: Hausman Test**

Correlated Random Effects - Hausman Test

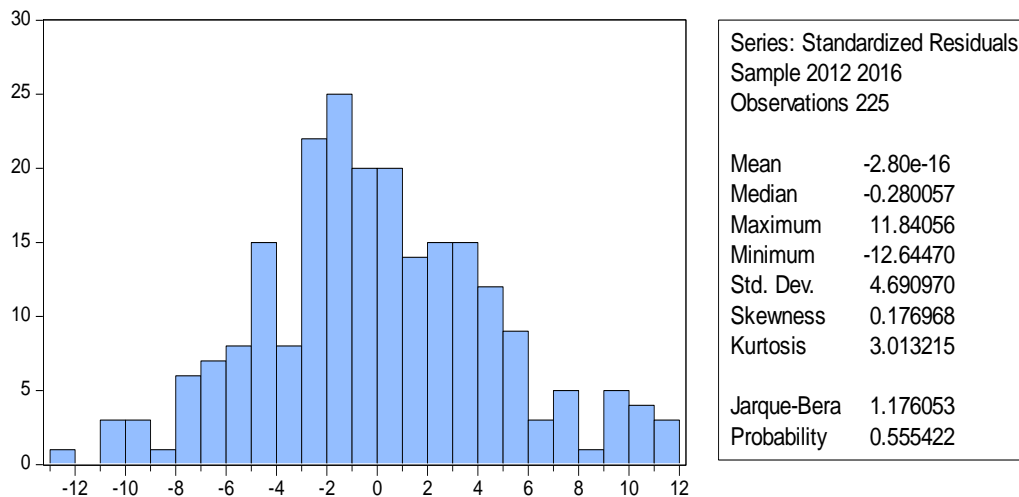
Test cross-section and period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	4	1.0000
Period random	0.000000	4	1.0000
Cross-section and period random	14.932834	4	0.0048

The Hausman test in Table 1 reveals a chi-square value of 14.9328 with a p-value of 0.0048 that is statistically significant at 5% significance level. The researcher therefore, rejects the null hypothesis of a random effects model and adopts a fixed effects model.

#### 4.2.2 Normality Test

This is a test of the normality of the residuals obtained from the fixed effects panel regression model.



**Figure 5: Residuals Normality Test**

Figure 5 shows that the Jarque-Bera test for normality had a p-value of 0.555422 that is insignificant at 5% significance level. In this case, the null hypothesis of normality is rejected and the residues are considered significantly normal. The skewness of 0.176968 and kurtosis of 3.013215 falls within the range of approximate normality, therefore, the data can be considered not to be violating the normality assumption and is appropriate for linear regression.

#### 4.2.3 Stationarity Test

This test was done to check for violation of the assumption of stationarity of the data. It was conducted using the Levin, Lin & Chu test where the null hypothesis is presence of a unit root that implies that the data is not stationary.

**Table 2: Insurance Growth Unit Root Test**

Null Hypothesis: Unit root (common unit root process)

Series: INSURAN\_GROWTH

Total (balanced) observations: 180

Cross-sections included: 45

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-6.15167	0.0000



From the results in Table 2, the Levin, Lin and Chu test had a p-value of 0.000 which is statistically significant at 5% significance level. This leads to a rejection of the null hypothesis and a conclusion that the data is stationary at level.

### Table 3: Straight Commission Rate Unit Root Test

Null Hypothesis: Unit root (common unit root process)

Series: STRAIGHT\_COMM\_RATE

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 180

Cross-sections included: 45

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-24.2644	0.0000

Table 3 shows a p-value of 0.0000 for the Levin, Lin & Chu test done on straight commission rate. This implies a rejection of the null hypothesis at 5% significance level in favour of the alternative hypothesis that the straight commission rate data is stationary at level.

### Table 4: Retainer Plus Commission Rate Unit Root Test

Null Hypothesis: Unit root (common unit root process)

Series: RETAINER\_COMM\_RATE

Total (balanced) observations: 180

Cross-sections included: 45

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-19.6674	0.0000

Table 4 shows a p-value of 0.0000 for the Levin, Lin & Chu test done on retainer plus commission rate. This implies a rejection of the null hypothesis at 5% significance level in favour of the alternative hypothesis that the retainer plus commission rate data is stationary at level.

### Table 5: Residual Commission Rate Unit Root Test

Null Hypothesis: Unit root (common unit root process)

Series: RESIDUAL\_COMM\_RATE

Total (balanced) observations: 180

Cross-sections included: 45

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-33.1925	0.0000

Table 5 shows a p-value of 0.0000 for the Levin, Lin & Chu test done on residual commission rate. This implies a rejection of the null hypothesis at 5% significance level in favour of the alternative hypothesis that the residual commission rate data is stationary at level.

**Table 6: Firm Size Unit Root Test**

Null Hypothesis: Unit root (common unit root process)

Series: FIRM\_SIZE

Total (balanced) observations: 160

Cross-sections included: 40 (5 dropped)

Method	Statistic	Prob.**
Levin, Lin & Chu t*	-120.357	0.0000

Table 6 shows a p-value of 0.0000 for the Levin, Lin & Chu test done on firm size. This implies a rejection of the null hypothesis at 5% significance level in favour of the alternative hypothesis that the firm size data is stationary at level.

#### 4.2.4 Multicollinearity Test

The test for multicollinearity was done to check for the degree of correlation between the independent variables. VIF values were generated for each independent variable and compared with the critical VIF value of 10 as suggested by O'Brien (2007). If the generated VIF value is greater than the critical value of 10, the variable is considered to be suffering from a problem of multicollinearity.

**Table 7: Multicollinearity Test**

Variable	VIF
Firm Size	2.62
Retainer Plus Commission Rate	2.60
Straight Commission Rate	2.43
Residual Commission Rate	2.43
Mean	2.52

From the results in table 7, it can be seen that the VIF values for all the variables was less than 10 thus implying that no variable had a problem of multicollinearity.

#### 4.3 Model Specification and Output

From the panel diagnostic test done, a fixed effects panel regression model was found to be the most suitable estimation model and it is specified as;

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \mu$$

Where:

Y = Growth of Insurance Firms

X<sub>1</sub> = Straight Commission

X<sub>2</sub> = Retainer plus Commission

X<sub>3</sub> = Residual Commission

X<sub>4</sub> = Firm Size

{ $\beta_i$ ; i=1,2,3,4} = The coefficients for the independent variables.

$\mu$  is the error term that is assumed to be normally distributed with mean zero and constant variance.

The model was estimated on the Eviews software and the results are shown in Table 8.

**Table 8: Panel Least Squares Regression Output**

Dependent Variable: INSURAN\_GROWTH

Method: Panel Least Squares

Cross-sections included: 45

Total panel (balanced) observations: 225

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	27.70539	4.595284	6.029093	0.0000
STRAIGHT_COMM_RATE	-0.001644	0.000341	-4.813805	0.0000
RETAINER_COMM_RATE	0.576955	0.222238	2.596119	0.0102
RESIDUAL_COMM_RATE	-0.220136	0.157855	-1.394540	0.1650
FIRM_SIZE	0.676398	0.189984	3.560299	0.0005
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.789751	Mean dependent var		16.03911
Adjusted R-squared	0.726187	S.D. dependent var		10.23046
S.E. of regression	5.353311	Akaike info criterion		6.395813
Sum squared resid	4929.166	Schwarz criterion		7.200494
Log likelihood	-666.5289	Hannan-Quinn criter.		6.720585
F-statistic	12.42454	Durbin-Watson stat		2.192311
Prob(F-statistic)	0.000000			

## 4.4 Research Findings and Discussion

This section discusses the results of the regression output shown in Table 8. It involves explaining the relationship between the variables based on the research findings and discussing the overall validity of the model.

### 4.4.1 Straight Commission Rate and Growth of Insurance

The first objective of this study was to determine the effect of straight commission payment on the growth of insurance firms in Kenya. From the results presented in Table 8, straight commission rate had a negative coefficient of -0.001644 and t-statistic of 4.814. The calculated p-value of 0.000 was lower than the critical p-value of 0.05, which imply that at 5% significance level the relationship is statistically significant. It was therefore concluded that straight commission rate has a significant negative effect on growth of insurance firms in Kenya. This means that a unit increase in straight commission rate would lead to a subsequent decrease on the growth of insurance firms by 0.001644 units. These results are consistent with Muchai (2012) who conducted a study on straight commission compensation practices among commercial banks in Kenya and established a

negative relationship. However, the results differ with Hart (2016) who established a positive relationship with growth of manufacturing and production industries.

#### **4.4.2 Retainer Plus Commission Rate and Growth of Insurance**

The second objective of this study was to determine the effect of retainer plus commission payment on the growth of insurance firms in Kenya. From the results presented in Table 8 retainer plus commission rate had a positive coefficient of 0.576955 and t-statistic of 2.596. The calculated p-value of 0.0102 was lower than the critical p-value of 0.05, which imply that at 5% significance level the relationship is statistically significant. It was therefore concluded that retainer plus commission rate has a significant positive effect on growth of insurance firms in Kenya. This means that a unit increase in retainer commission rate would lead to a subsequent increase on the growth of insurance firms by 0.576955 units. This is consistent with the findings of Ojeleye (2017) who investigated the impact of retainer remuneration on performance and findings suggested that there is a strong and positive relationship between remuneration and employees' performance and that salary/wage and bonus/incentives serve as a form of motivation to the employees.

#### **4.4.3 Residual Commission Rate and Growth of Insurance**

The third objective of this study was to determine the effect of residual commission payment on the growth of insurance firms in Kenya. From the results presented in Table 8, residual commission rate had a negative coefficient of -0.220136 and t-statistic of 1.394. The calculated p-value of 0.1650 was higher than the critical p-value of 0.05, which imply that at 5% significance level the relationship is statistically significant. It was therefore concluded that residual commission rate has an insignificant negative effect on growth of insurance firms in Kenya. This means that a unit increase in residual commission rate would lead to a subsequent decrease on the growth of insurance firms by 0.220136 units. This is consistent with the findings of Bernt, Bratsberg, Torbjorn and Raaum (2008) did a study on the impact of performance-related pay on wage differentials within firms and established a negative relationship with growth. Even though residual performance-related pay appeared to be on the rise, the overall impact on growth dispersion was likely to be small, particularly in companies in European countries.

#### **4.4.4 Firm Size and Growth of Insurance**

The fourth objective of this study was to determine the effect of firm size on the growth of insurance firms in Kenya. From the results presented in Table 8, firm size had a positive coefficient of 0.676398 and t-statistic of 3.56. The calculated p-value of 0.0102 was lower than the critical p-value of 0.05, which imply that at 5% significance level the relationship is statistically significant. It was therefore concluded that firm size has a significant positive effect on growth of insurance firms in Kenya. This means that a unit increase in firm size would lead to a subsequent increase on the growth of insurance firms by 0.676398 units. The results are consistent with Naran (2013) investigated the effects of company size on the financial growth of insurance firms in Kenya and established a strong positive and significant relationship. There was a positive relationship between asset a proxy for company size and firm financial growth.

#### **4.4.5 Overall Validity of the Model**

Table 8 shows that the model was a good fit for the data. The adjusted R-squared of 0.789751 shows that 78.98% of the variation in the dependent variable would be explained by changes in the explanatory variables. Thus, the model had a high explanatory power. The model had an F-statistic of 12.42 with a p-value of 0.0000 showing that the model as a whole was significant and



that at least one coefficient was different from zero. The Durbin-Watson statistic of 2.19 was within the acceptable range of 1.5 to 2.5 (Field, 2009) for the absence or near absence of the problem of serial correlation in the data.

## **5.0 Conclusion**

From the findings of the study straight commission payment, retainer plus commission payment, residual commission payment and firm size were found to be important aspects of on growth of insurance firms in Kenya. A significant negative relationship between straight commission payment and growth of insurance firms in Kenya imply that it even when there are no sales, the insurance is still responsible for many sales-related and operating expenses that are incurred, even if the agent never makes a sale therefore affecting growth negatively. The significant positive relationship between retainer plus commission rate and growth of insurance firms in Kenya imply that the insurance firms are likely to improve growth when they pay a retainer commission to the agents as a way to keep them in business. The retainer plus commission is considered a standard and sustainable method as it pays on revenues that have already been earned by the insurance company therefore averting losses.

Residual commission rate considered an important variable because of its negative effect on growth of insurance firms in Kenya. The residue commission rate had a negative effect as the insurance firm continues to pay the agents for a period after the payment by a policyholder. When the insurance firm continues to pay the residue amount for a long period, this will mean that the firm is paying more than then its gaining in the long run. The significant positive relationship between firm size and growth of insurance firms in Kenya imply that the insurance firms with a larger market share enjoy economies of scale and are able to utilize resources, technology and available networks to realize a larger client base than small firms. Additionally large insurance firms have a large client base hence they can focus more on improving and diversifying products and services according to client taste and preferences.

## **6.0 Recommendation**

From the significant negative relationship between straight commission payment and growth of insurance firms, this study recommends that the management of insurance firm should moderate the straight commission rate with consideration with the firm's ability and individual agent performance. Unsustainable straight commission's rates should be lowered to the extent of the insurance firms' ability. Further from the significant positive relationship between retainer plus commission rate and growth of insurance firms, the study shows that retainer commission is the most appropriate strategy to pay the sales agents. These payments are made based on the level of revenues brought in by the sales agents and therefore are sustainable. Therefore, the study recommends that retainer plus commission should be retained and raised to boost the sales agents. The residue commission rate had a negative effect as the insurance firm and the study recommends that the period under which the residual rate is paid to the sales agents should be reduced to short periods.

Finally, the significant positive relationship between firm size and growth of insurance firms indicated that the larger insurance firms enjoys economies of scale and thus able to maintain growth. Therefore, the study recommends that the management should adopt expansion strategies in the market share to have a large market base for their products. This will enhance more revenues and thus growth in the long run.

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