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## **RISK MITIGATION STRATEGIES AND PERFORMANCE OF INSURANCE INDUSTRY IN KENYA: A CASE OF MOTOR INSURANCE COMPANIES**

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### **Abstract**

**Purpose:** The study's general objective was to establish the effects of risk mitigation strategies on performance of insurance industry in Kenya: a case of motor insurance companies. Specifically, the Project focused on the Risk control, risk avoidance, risk transfer and product mix strategies on performance of the insurance industry

**Methodology:** The research used descriptive survey research designs. The target population of this study was the management and the other employees of all the 18 Motor insurance companies, the sample size of the study was 54. The sampling procedure was both simple random sampling and purposive sampling. Primary data entailed using of questionnaires. Content validity was ensured by asking questions that are relevant and captured the research objectives, reliability was measured with the help of Cronbach's alpha ( $\alpha$ ). Descriptive statistics such as means, standard deviation and frequency distribution tables were used to analyze the data. Qualitative data was analyzed using content analysis to generate qualitative reports which were presented in a continuous prose. Inferential statistics such as regression and correlation analysis were used to establish the effects of risk mitigation strategies on performance of insurance industry in Kenya, a case of motor insurance companies. Data presentation was done by the use of bar charts and graphs, percentages and frequency tables for ease of understanding and interpretation.

**Results:** The study found out that risk control strategy and performance of regulated motor insurance companies in Kenya are positively and significantly related. The results further indicate that risk avoidance strategy and the performance of regulated motor insurance companies were

positively and significantly related. It was further established that product mix strategy and performance of regulated motor insurance companies were positively and significantly related while risk-based audit strategy and performance of regulated motor insurance companies were also positively and significantly related

**Unique Contribution to Theory and Practice:** The study concluded that risk controlling strategy, risk avoidance strategy, risk-based audit strategy and product mix Strategy have a positive and significant effect on performance of Motor Insurance Companies. Based on the findings and conclusions that risk controlling, risk avoidance Strategy, risk-based audit strategy and product mix strategy has a positive and significant effect on performance of Motor Insurance Companies. The study recommended that motor insurance companies should work toward investing more on risk reduction strategies in order to improve their performance.

**Keywords:** *Risk control strategy, Risk avoidance strategy, Product mix strategy, Risk based audit strategy, Performance and Insurance*

## 1.0 INTRODUCTION

Today's world presents serious challenges. Fundamental changes in natural, economic, social, and political spheres, shifting stakeholder expectations and wide-reaching technological innovations lead to a perpetually changing and demanding risk environment. This calls for continuous adaptation from businesses around the globe. (The Geneva Papers on Risk and Insurance, 2013). External forces must be death within the insurance industry and continuation of growth of the frontiers of risk mitigation. Law frameworks and procedures too must adapt. It is important that the Law responses to the new challenges be made to support the economy. Insurers have expanded into new geographic markets and developing a greater range of insurance product offerings and services to improve on their performance in that some insurers and non-insurance are engaging in activities such as banking and asset management services.

Affordability of insurance products is low in Africa due to poor standards of living in that only upper- and middle-income earners can access the insurance products. Nevertheless, the relatively unexplored insurance industry is expected to be resilient thanks to consistent GDP growth, rapid urbanization and increases in the working aged population across the continent. South Africa, one of the region's most advanced, is currently troubled, economies, unsurprisingly accounted for almost 75 percent, or \$51.6bn, of all insurance premiums on the continent in 2013 according to global reinsurance firm Swiss Re. According to South African Insurance Association report (2015), However South Africa's dominance is set to be challenged by a number of promising countries.

MsMaïdou also points to Kenya and Ethiopia as significant up-and-coming insurance markets, "especially due to the size of their population and growing middle class". Although the penetration rate for insurance in Kenya stood at only 2.75 percent in 2013, the market has grown by just over 15 percent each year from 2010 to 2013. Premiums reached \$1. 5bn. The recent \$350m investment partnership between Prudential Financial and Leapfrog Investments, which targets high-growth insurance markets in Africa, is a clear sign that global companies are keen to tap this potential. In 2015 Group Jubilee Holdings Limited (JHL) achieved a turnover of Kshs 30.16 Billion hence increase in growth by 25 percent to Ksh. 1.72 Billion in 2015 (Abuogi, 2014).

Kenya being developed has the best insurance markets although the competition is tough. Currently, according to the Association of Kenyan Insurers (AKI), Kenya represents 70% of the East African insurance market, which also includes Tanzania, Uganda, Rwanda and Burundi. Insurance penetration and accessibility have been improving steadily in Kenya. There is a potential for increase in demand for insurance as middle class is growing, more Kenyans have disposable income. Increase in urbanization, giant infrastructure projects, new energy schemes and growing industry. Huge infrastructure plans have made investment opportunities in insurance. Some of the main ventures include the construction of the second runway and new terminal at Jomo Kenyatta International Airport, the Lamu Transport Corridor project, and the Standard Gauge Railway (SGR) project (Abuogi, 2014).

Life insurance penetration is 1.2% of GDP and general insurance about twice that, bringing the total to 3.44% in 2013, according to AKI figures. This measure of insurance penetration dropped to 2.93% in 2014 after GDP was rebased with a 25% increase. Now 4% penetration by year-end looks possible; this compares favorably to the majority of Africa's markets, although it is slightly down from the 2010 target of 5% by 2015. Worldwide insurance penetration is about 6.5% of GDP, so Kenyan insurers say there is great room for growth. William Maara, managing director of Barclays Life Assurance Kenya, told OBG that, "Given low penetration rates, the Kenyan insurance sector has significant growth potential. This is particularly true following the expansion of the branch network into previously untapped markets; expansion was further supported by the introduction of new products to the market

### **1.1 Problem Statement**

Insurance companies are the backbone for most small business development of any country and as such several studies have been carried out in line with this. Several empirical studies have been carried out in this area of organizational performance; Tripp, M., and Bradley, H., (2004). Conducted study on How to Quantify Operational Risk in General Insurance Companies. Belasco, E. (2008). Conducted a study on 'The Role of Price Risk Management in Mitigating Risks in profits of Motor Insurance'. Faure, M. (2006). Did a study on the Economic Criteria for Compulsory Insurance. The Geneva Papers on Risk and insurance: Issues and practice. However,

none of these studies seem to address comprehensively the issue of Risk mitigating strategies and performance in motor insurance therefore that is the concern for this paper.

Locally, Essendi (2013) examined the effects of risk management on the performance of insurance companies. Results showed that formulation of new motor policy is based on the existing credit policy of the insurance companies. Wanja (2013) investigated the effects of credit policy used by commercial banks on their performance. These studies failed to indicate the extent to which risk mitigation strategies such as risk control, risk limitation, risk auditing strategy influence performance in motor vehicle insurance companies. Despite the significant role played by risk mitigation strategies on performance in insurance companies, this has not attracted attention of many authors. This study therefore sought to fill the existing knowledge gap by determining the effects of risk mitigation strategies on performance of motor insurance companies in Kenya.

## **1.2 Research Objectives**

- i. The specific objectives of this study were;
- ii. To determine the effects of risk controlling strategy on performance of Motor Insurance Companies.
- iii. To establish the extent to which risk avoidance influences performance of Motor Insurance Companies.
- iv. To establish influence of risk-based audit strategy on performance of Motor Insurance Companies.
- v. To determine influence of product mix strategy on performance of Motor Insurance Companies

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Framework**

The following theories pinned the study: resources-based theory and agency theory

#### **2.1.1 Resource Based Theory**

According to the Resource Based Theory all inputs that allow the firm to function and to implement its strategies are firm resources. There are input factors which are generic resources that can be acquired in the market and logistics input factors which include raw skills loading skills, driving skills, picking skills, computer operating skills factors forklift trucks, warehouse racking,

packaging materials, and inventory. When input factors are transformed, they become part of the firm's assets, hence contributing to the outputs of the firm (Grant, 2002).

When resources enable a firm to implement product mix strategy that improves performance and exploit market opportunities or neutralizes risks only then is when they are considered valuable (Barney, 2001). The theory stipulates clearly that through utilization of the organization resources, insurance will be in a position to consider its assets and its financial capability to evaluate and produce product based on the need in the market.

### **2.1.2 Agency Theory**

Agency theory extends the analysis of the firm to include separation of ownership and control, and managerial motivation. Theory also elaborates differences on interest between shareholders, management, and debt holders due to variance in earning distribution, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers and Smith, 1987). Stulz (1984) asserts that managers are presumed to be working on behalf of firm owners and concern themselves with both expected profit and the distribution of firm returns around their expected value. They have an obligation to avoid risk in so as to minimize the variability of firm returns and hence achieve it

Agency theory provides strong support for risk management as a response to mismatch between managerial incentives and shareholder interests. Shareholders and managers have different interests to the firm and risk management objectives vary for the different stakeholders. While shareholders may require high risk – high return investments, management prefer low risk and return investments. The agency theory emphasizes the need for risk controlling in the firm to align the interests of managers and shareholders and to contribute to the performance of the firm

### **2.2 Conceptual Framework**

Conceptual framework explaining the relationship between risks mitigation strategies as the independent variable and performance of insurance firms as the dependent variable.



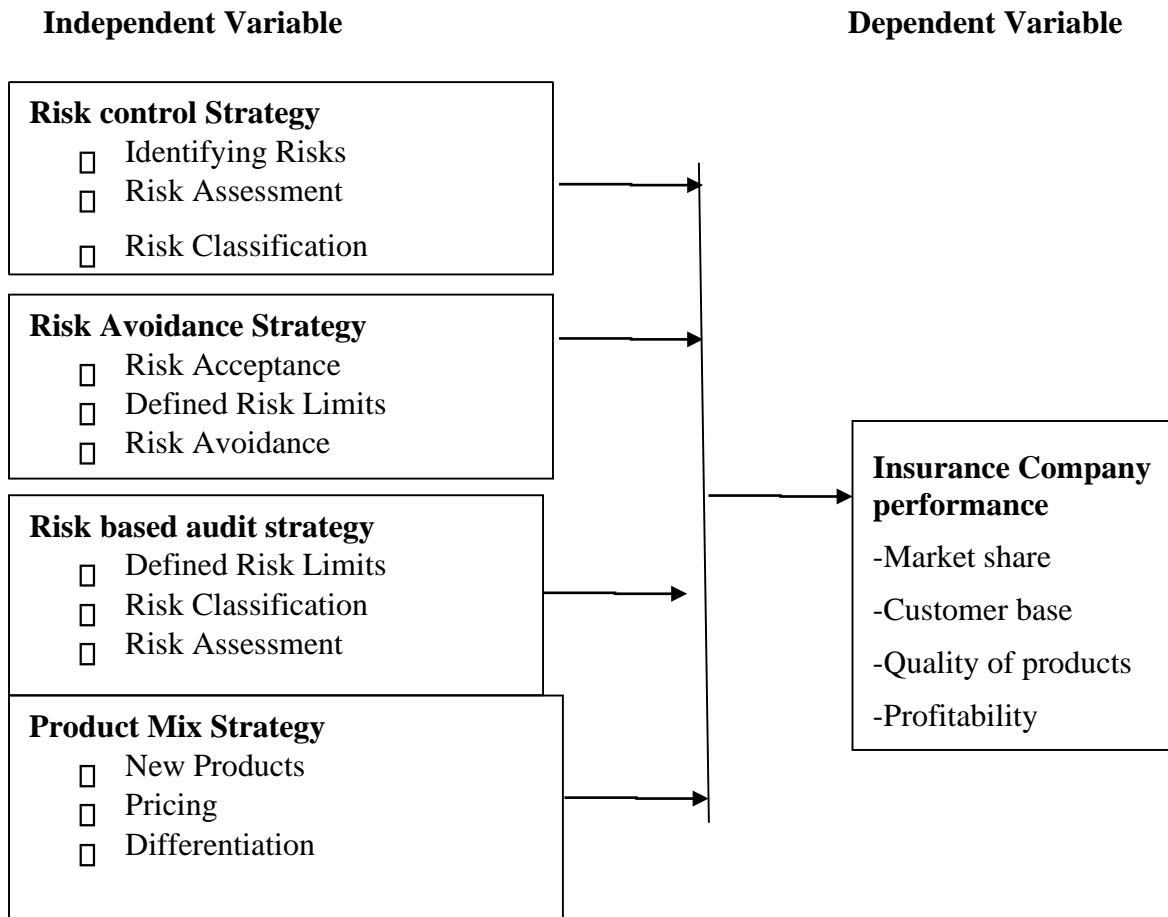


Figure 1: Conceptual Framework

### 2.3 Empirical Review

A research carried out by Manab *et al.*, (2010) focused on the drivers: mandate from board of directors globalization, shareholders pressure, technology, improved decision making, competitive pressure, good business practice catastrophic event and good business practices which contributes to the success of Enterprise Wide Risk Management (EWRM) implementation with corporate governance compliance and improvement in for profit companies in Malaysia. Only 85 participated in this study two types of companies were chosen that is financial companies and nonfinancial companies. The conclusion of the study corporate governance, mandate from board of directors, shareholder value, improved decision making and good business practices results to success of Enterprise Wide Risk Management (EWRM).



Laurentis and Mattei (2004) conducted a research on Lessors' recovery risk management capability and found that the development of modern reliable systems of risk management can enhance even more those management capabilities. This means that credit firms should invest resources in projects aimed at correctly implementing rating systems and risk models, and highlights once more the importance of these tools well beyond the scope of regulatory compliance. The research method used is that mixed research method. According to Momo and Ukpong (2013), Equitable Life Assurance Society of United Kingdom collapsed in the year 2000 due to mismanagement of funds by the directors subsidize current annuity rate policies instead of the guaranteed annuity rate policies. Skandia, Sweden's largest insurance company which leads in providing variable annuities and other savings products also ruined its reputation in 2003 when three of its top executives were investigated on misuse of firm's assets.

Memba (2015) evaluated the impact of risk management practices on financial performance of life assurance firms in Kenya. The study found that adaptation of premium valuation should be considered by the management on insurance firms to enable financial performance of life assurance firms in Kenya.

### **3.0 RESEARCH METHODOLOGY**

The research used descriptive research design. This research design involves collection of data that illustrates events and then organizes, tabulates, depicts, and describes the data. (Onen & yuko, 2011) The study population comprised of staff working in motor insurance companies namely: the management, the staff at the corporate level and the functional level who were credit officer, operation managers, finance officer, chief auditors and chief IT officers and human resource directors making a total of 108 staff ( Association of Kenya Insurers ,2016).

The study adopted a stratified random sampling and adopted a sample proportion of 50% as indicated by Kothari (2004) to determine a sample size of 54 respondents. Questionnaires were used in collecting data and consisted of a mixture of open ended and close ended questions. According to Babbie, (1998), questions ought to be open ended and closed ended in a questionnaire give room for intensity and richness of individual perceptions in respondent responses. Qualitative data was analyzed using content analysis to generate qualitative reports which were presented in a continuous prose. Quantitative data was analyzed using descriptive statistics such as means;

standard deviation and frequency distribution were used to analyze the data to establish the effects of risk mitigation strategies on performance of insurance industry in Kenya: a case of motor insurance companies

Inferential statistics such as regression and correlation analysis were used to establish the effects of risk mitigation strategies on performance of insurance industry in Kenya: a case of motor insurance companies. The response on risk mitigation strategies were measured by computing indices based on the responses derived from the Likert-Scaled questions. The study adopted linear equation model as presented.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Y= Performance

X<sub>1</sub> = Risk Controlling Strategy

X<sub>2</sub>= Risk Avoidance Strategy

X<sub>3</sub>= Risk based audit strategy X<sub>4</sub>=

Product Mix Strategy

$\alpha$  = Constant  $\beta$ =

Coefficient factor

## **4.0 RESULTS AND FINDINGS**

### **4.1 Descriptive Statistics**

This section presents the descriptive results based on the research objectives of this study. It presents the descriptive results on risk control strategy, risk limitation strategy, product mix strategy; risk-based auditing strategy and performance of insurance industry in Kenya.

#### **4.1.1 Risk Controlling Strategy**

Risk control is the method by which firms evaluate potential losses and take action to reduce or eliminate such threats. Risk control is a method that uses findings from risk assessments such as knowing potential risk factors in a company's operations originating from technical and nontechnical aspects of the business, financial policies, and other policies that may affect the wellbeing of the company, and implementing changes to reduce risk in these areas. Descriptive Results for Risk Controlling strategy are presented in table 1

**Table 1: Risk Controlling Policy**

	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Assessing risks	54	3.833	1.270
Overhead cost	54	3.370	1.405
General risk control	54	3.907	1.217
Operating efficiency	54	3.407	1.339
Policy controlling indicators Valid N	54	2.833	1.424

*Source: Survey Data (2016)*

Results in table 1 shows that, a mean of 3.833 and standard deviation of 1.270, the findings showed that a majority of the respondents felt that assessing risks was considered to a great extent in their company. Similarly, overhead costs were also considered to a great extent in risk controlling given a mean of responses of 3.370 and a standard deviation of 1.405 implying that the responses were varied.

The findings also showed that general risk control and operating efficiency were also considered to a great extent in the risk control process as shown by average of responses of 3.907 and 3.407 respectively and that these responses were varied from the mean as indicated by standard deviation of 1.217 and 1.339 respectively. However, the findings showed that policy controlling indicators were used to a less extent in risk controlling as indicated by a majority of the respondents with a mean of responses of 2.833 and a standard deviation of 1.424 indicating variation in the responses. The study further assessed the effects of risk control strategy on the performance of regulated motor insurance companies in Kenya. Results are presented in table 2.

**Table 2: Risk Controlling Strategy and Performance of Motor Insurance Companies**

**Descriptive Statistics Total**

	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Risk assessment	54	3.981	1.189
Identification of potential risk	54	3.759	1.258
The speed of responding to the potential risk	54	4.130	1.100
Physical changes of the firms	54	3.352	1.456
The company carries out external and internal audit of the business activities to determine how to respond to risks	54	3.611	1.323
The company vets' clients before approving policy facility to reduce occurrence of risk.	54	4.241	0.867
The company adopts legal department checks such as signing of a binding policy contract to ensure premium repayment without defaults.	54	3.963	1.098
The company imposes penalties on policy defaulters	54	4.056	1.089

*Source: Survey Data (2016)*

Results presented in table 2 showed that risk assessment influenced performance of motor insurance companies to large extent as shown by a mean of responses of 3.981 and a standard deviation of 1.189 meaning that the responses were varied. Majority of the respondents also indicated that identification of potential risk influenced the performance of the companies to a great extent as shown by a mean of responses of 3.759 and a standard deviation of 1.258. Similarly, the speed of responding to potential risk also influenced their performance to a great extent as indicated by a mean of responses 4.130 and standard deviation of 1.100. Physical changes of the firms were also stated as influencing performance to a great extent given a mean of responses of 3.352 and standard deviation of 1.456.

The results further showed that conducting external and internal audit of the business activities to determine how to respond to risks and vetting of before approving policy facility to reduce occurrence of risk influenced the performance of motor insurance companies to a great extent as

indicated by means of responses of 3.611 and 4.241 respectively and the responses were varied given standard deviations of 1.323 and 0.867 respectively. Adopting legal department checks such as signing of a binding policy contract to ensure premium repayment without defaults and imposing penalties on policy defaulters were also found to influence the performance of the companies to a great extent given mean of responses of 3.963 and 4.056 respectively and standard deviation of 1.098 and 1.089 respectively

#### 4.1.2 Risk Avoidance Strategy

The study sought to find out the extent to which motor insurance companies focused on various types of risks in the risk identification step. The results are as presented in Table 3

**Table 3: Types of Risks**

	Mean	Standard Deviation
Interest rate risks	3.852	0.899
Liquidity risks	3.778	1.176
Political risks	3.019	1.325
Market risks	3.741	1.152
Credit risk	3.667	0.911
Technological risks	3.093	1.444
Valid N		

*Source: Survey Data (2016)*

Results in table 3 revealed that these companies focused to a great extent on interest rate risks, liquidity risks, market risks and credit risks as shown by the mean of responses of 3.852, 3.778, 3.741 and 3.667 respectively and these responses were varied. The companies also focused on political risks and technological risks but on a moderate extent given the mean of responses of 3.019 and 3.093.

It is important to clarify the different risks in relation to the amount of damage they possibly cause (Fuser, Gleine, & Meier, 1999). This ensures division of risks by the management that are threatening the existence of the corporation from those which can cause slight damages. There is a relationship between the expected amount of loss and its corresponding likelihood that risks that

will cause a high damage to a corporation like earthquakes or fire occur seldom, while risks that occur daily such as interest rate risks or foreign exchange risks often cause relatively minor losses only, (Fatemi & Glaum, 2000).The study further sought to assess the influence of risk limitation strategy on the performance of regulated motor insurance companies in Kenya. The respondents were therefore asked to rate the importance of various aspects of risk limitation in influencing the performance of the companies. The results are as presented in Table 4.

**Table 4: Risk Avoidance Strategy and Performance of Motor Insurance Companies**

<b>Risk limitation</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Adequate intra company communication	54	3.574	1.283
Realistic risk control	54	3.778	1.254
Reducing scope to avoid high-risk activities	54	3.370	1.186
Use of expertise in assessing risk	54	4.019	1.205
Adopting a familiar approach instead of an innovative risk measure	54	3.815	1.245
Avoidance of risk	54	3.889	1.127
Valid N	54		

*Source: Survey Data (2016)*

The results presented in Table 4 showed that adequate intra company communication was important in influencing the performance of these companies as indicated by a majority of the respondents where the mean of responses was 3.574 and a standard deviation of 1.283 implying that the responses were varied. Realistic risk control was also stated by a majority of the respondents as important in influencing the performance of motor insurance companies as portrayed by a mean of responses of 3.778 and standard deviation of 1.254 showing that there was variation in the responses.

In addition, reducing scope to avoid high-risk activities was also noted as important factor influencing the performance of these companies as shown by a mean of responses of 3.370 and a standard deviation of 1.186. The findings further showed that a majority of the respondents

asserted that the use of expertise in assessing risk was very important in influencing the performance of these companies as shown by a mean of responses of 4.019 and a standard deviation of 1.205 which showed that the responses from the respondents were varying. Similarly, adopting a familiar approach instead of an innovative risk measures and avoidance of risks were important influencers of the companies' performance given a mean of responses of 3.815 and 3.889 respectively and these responses were also varied as portrayed by the standard deviations.

These findings are in line with that of Kieyah (2011) who found that lack of clearly defining limits, misleading report, inadequate communication concerning risk sensitivity, unrealistic risk control, and inefficient knowledge of the business environment and lack of timely decision making. As a result, various interested parties such as shareholders and other corporate entities are deprived of valuable information, which could lead to the formulation of more comprehensive and reliable risk systems, particularly as they relate to information systems. The findings are also in line with the traditional risk limitation strategies which suggest that risk evaluation process may allow individual biases to affect the assessment. Assessments by unknowledgeable participants get in the way often skewing the results.

Second, the process does not address the unique characteristics of the company's risks. While using a common analytical framework to assess risks with different characteristics and time horizon considerations may make the process easier to execute, it is not robust enough to add value continuously over time, may ignore the interplay among related risks and does not alleviate the fundamental problem of limited information. The integrity of the risk assessment process can be impaired by the overconfidence that can be bred by an overly simplified view of the future. Overconfidence is often driven by the degree of success managers have experienced in the past and the quality and coherence of the story line managers construct regarding the future, rather than by business realities

Fourth, the process does not give clarity on measures to take at extreme resulting to emphasis on high impact, low likelihood risk because of low probabilities involved false sense of security caused by lack of historical precedence. Events that occur unexpectedly in a firm due to lack of preparedness cause huge damages. Therefore, the process needs considerations as the speed to



impact, the persistence of the impact over time and the firm’s response readiness even though the specific cause of the loss may not be known.

**4.1.3 Risk based audit strategy**

The study sought to establish the respondents’ opinion on the extent to which the following risk-based audit strategies affected the performance of their companies. The findings are as portrayed in Table 5

**Table 5: Risk-based Auditing Strategy and Performance of Motor Insurance Companies**

	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Reception of risk-based audit reports in time	54	3.963	1.243
Assessment of risks with the management	54	4.037	1.165
Discussion of risk-based audit annual plans with the management	54	3.704	1.253
Discussion of audit draft reports with management	54	3.611	1.265
Company annual audit planning	54	3.685	1.301
Management response to audit queries on time	54	3.796	1.219
Implementation of audit recommendation by the management	54	4.185	1.100
Reception of adequate resources for risk based audit	54	3.852	1.393

The results presented in Table 5 showed that a majority of the respondents noted that reception of risk based audit reports in time; assessment of risks with the management; discussion of risk based audit annual plans with the management; discussion of audit draft reports with management company annual audit planning; management response to audit queries on time; implementation of audit recommendation by the management and reception of adequate resources for risk based audit affected the performance of the regulated insurance companies to a great extent as given by mean of responses of 3.963, 4.037, 3.704, 3.611, 3.685, 3.796, 4.185 and 3.852 respectively. The standard deviations which were greater than 1 implied that the answers given were varied.

Based on the findings above, the respondents felt reception of risk-based audit reports on time and timely assessment of the risk may significantly reduce and mitigate risk. The mean responses of the above data indicated that the companies had succeeded in mitigating risks based on the two

strategies. This confirms the findings of an earlier study by Ochome (2011) that implementing a risk-based strategy requires that life insurance companies and intermediaries have a good understanding of the risks and are able to exercise sound judgment.

#### 4 .1.4 Product Mix Strategy

The study assessed the effectiveness of use of various product mix strategies in mitigating risk in regulated motor insurance companies. The respondents were therefore asked to rate the extent to which the use of these product mix strategies was effective. The findings are as shown in Table 6.

**Table 6: Effectiveness of Product Mix Strategies in Mitigating Risks**

	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Number of total products	54	3.815	1.214
Number of new product lines that your company sells	54	2.852	1.595
Total number of variations for each product	54	3.685	1.286
Valid N			

*Source: Survey Data (2016)*

Results presented in table 6 shows that a majority of the respondents were of the opinion that the number of total products provided by a company was effective to a great extent in mitigating risks as shown by a mean of responses of 3.815 and standard deviation of 1.214 meaning that the responses were varied. Similarly, the findings showed that the total number of variations for each product was effective to a great extent in mitigating risks in these companies as supported by a mean of responses of 3.685 and standard deviation of 1.286. However, the number of new product lines that a company sold was found to be effective to a less extent in risk mitigation as illustrated by a mean of responses of 2.852 and standard deviation of 1.595.

These findings support that of Amonde (2013) who found that diversification of products in a company featured even within each product line, may create challenges regarding the required efforts and timing for experience monitoring at the product level. In addition, it's not to set assumptions and a risk limit for new products. From this perspective, it may be more valuable as a tool to identify risks and adverse trends than to set a limit (Shang & Chen, 2012).

Insurance companies manage to provide protection from insured risk at a reasonable price developing different product mix and due to the pooling of individual exposures. Sometimes, an insurance company contracts its product mix. Contraction consists of dropping or eliminating one or more product lines or product items. This strategy results into more profits from fewer products. Instead of developing completely a new product, marketer may improve one or more established products. Improvement or alteration can be more profitable and less risky compared to completely a new product.

The study further assessed the influence of product mix strategy on the performance of regulated motor insurance companies in Kenya. The findings are as show in Table 7.

**Table 7: Product Mix Strategy and Performance of Motor Insurance Companies**

	N	Mean	Standard Deviation
Product designing of the motor policy	54	3.852	1.106
Pricing of the motor vehicle policy premium	54	3.741	1.2
Communication of new product to clients	54	3.537	1.37
Saving features attached to motor policy	54	3.574	1.326
Channel for premium pay	54	3.519	1.059
Implementation and maintenance with respect to motor vehicle policy	54	3.648	1.334
Premium payment process	54	3.722	1.295

*Source: Survey Data (2016)*

From results in table 7, it was found that product designing of the motor policy; pricing of the motor vehicle policy premium and communication of new product to clients were found to influence the performance of motor insurance companies to a great extent as shown by a mean of responses of 3.852, 3.741 and 3.537 respectively. The standard deviation showed that the responses given were varied. The findings also showed that the saving features attached to motor policy, channel for premium pay; implementation and maintenance with respect to motor vehicle policy and premium payment process also contributed to a great extent to the performance of the

companies as depicted by the mean of responses of 3.574, 3.519, 3.648 and 3.722 respectively where the standard deviations showed that the answers given were spread from the mean.

#### 4.3 Regression Analysis

The results presented in table 8 present the fitness of model used of the regression model in explaining the study phenomena.

**Table 8: Model Fitness**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756a	0.572	0.537	0.459866

a Predictors: (Constant), Risk based audit strategy, Risk avoidance Strategy, Risk Control Strategy, Product Mix Strategy

*Source: Survey Data (2016)*

Results in table 8 revealed that Risk control strategy, risk avoidance strategy, product mix strategy and risk-based audit strategy were found to be satisfactory variables in explaining the performance of regulated motor insurance companies in Kenya. This is supported by coefficient of determination also known as the R square of 57.2%. This means that risk control strategy, risk avoidance strategy, product mix strategy and risk-based audit strategy explained 57.1% of the variations in the dependent variable which is the performance of regulated motor insurance companies in Kenya. These results also imply that the model applied to link the relationship of the variables was satisfactory. In statistics, significance testing using the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number is found to be less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; otherwise the model would be regarded as non-significant. Table 9 provides the results on the analysis of the variance (ANOVA).

**Table 9: Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.839	4	3.46	16.36	.000
	Residual	10.362	49	0.211		
	Total	24.201	53			

a Dependent Variable: Performance

b Predictors: (Constant), Risk based audit strategy, Risk avoidance Strategy, Risk Control Strategy, Product Mix Strategy

**Source: Survey Data (2016)**

The results in table 9 indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance of regulated motor insurance companies in Kenya. This was supported by an F statistic of 16.36 and the reported p value (0.000) which was less than the conventional probability of 0.05significance level. Table 10 shows results of Regression of coefficients.

**Table 10: Regression Coefficients**

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	-2.098	0.723		-2.901	0.006
	Risk Control Strategy	0.431	0.144	0.299	2.983	0.004
	Risk Limitation Strategy	0.370	0.139	0.269	2.658	0.011
	Product Mix Strategy	0.429	0.15	0.297	2.855	0.006
	Risk based Audit Strategy	0.323	0.127	0.255	2.536	0.014

a Dependent Variable: Performance

**Source: Survey Data (2016)**

Hence, the optimal model for this study was as shown;

*Performance of regulated motor insurance companies = -2.098+ 0.323Risk based Audit Strategy + 0.370Risk Limitation Strategy + 0.429Product Mix Strategy + 0.431Risk Control Strategy*

Results in Table 10 shows that risk control strategy and performance of regulated motor insurance companies in Kenya are positively and significantly related ( $r=0.431$ ,  $p=0.004$ ). An increase in the unit change in risk control strategy would lead to an increase in the performance of regulated motor insurance companies by 0.431 units. The results further indicate that risk avoidance strategy and the performance of regulated motor insurance companies were positively and significantly related ( $r=0.370$ ,  $p=0.011$ ). These results imply that an increase in the unit change in risk limitation strategy would lead to an increase in the performance of regulated motor insurance companies by 0.370 units.

It was further established that product mix strategy and performance of regulated motor insurance companies were positively and significantly related ( $r=0.429$ ,  $p=0.006$ ) while risk-based audit strategy and performance of regulated motor insurance companies were also positively and significantly related ( $r=0.323$ ,  $p=0.014$ ). This shows that an increase in the unit change in product mix strategy and risk-based audit strategy would lead to an increase in the performance of regulated motor insurance companies by 0.429 and 0.323 units respectively. The findings are consistent with that of Yusuwan, Adnan & Omar, (2008) who studied on the risk management practices on construction project companies specifically in Klang Valley, Malaysia and found out that risk management affects production, outcome, efficiency and project finances and that risk management is suitable to apply for project with certain characteristics such as new technology.

The finding is also consistent with that of Salesio,(2013) who carried out a study with an aim of identifying the types of risks mitigated by the Kenyan insurers, mitigation strategies and techniques adopted, and the challenges facing the insurers in risk mitigation process and found out that the Kenyan insurance industry was mainly found to be vulnerable to economic risks and legal risks. However, the industry was also affected by political risks, technological risks, socio-cultural risks, geographical risks, management risks and personnel risks to a moderate extent. These were mainly mitigated using, risk avoidance, risk retention, risk transfer and risk reduction techniques. Towards ensuring sustainability in the industry, there is an urgent need for the insurance firms to

frequently train their staff on risk mitigation, empower risk managers, identify and train internal risk experts, and provide adequate budgetary allocations for risk mitigation

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

The study concluded that when proper Risk Controlling Strategies are adopted, it leads to an improvement in performance of Motor Insurance Companies. Risk control uses information gained during risk assessments and develops and applies changes to control the risks. Risk control can involve the implementation of new polices and standards, physical changes and procedural changes that can reduce or eliminate certain risks within the business. The study concluded that an improvement in Risk avoidance Strategy translates to an improvement in performance of Motor Insurance Companies. Risk avoidance strategy is modification of the project plan to eliminate the risk or condition or to protect the project objectives from its impact. Although the management team can never eliminate all risk events, some specific risks may be avoided. Some risk events that arise early in the company can be dealt with by clarifying requirements, obtaining information, improving communication, or acquiring expertise.

In addition, the study concluded that adoption of proper Risk based audit leads to an improvement in performance of Motor Insurance Companies. Increased concerns regarding corporate accountability in insurance companies have been associated with the need for appropriate Risk Based Audit which involves risk management and internal control systems. This has been reflected through recent voluntary corporate governance guidelines.

Lastly, the study concluded that the adoption of proper product mix Strategy leads to an improvement in performance of Motor Insurance Companies. Insurance Company selling costly, prestigious, and premium insurance quality products can opt to add lower- priced items in its costly and prestigious product lines. This is a unique product mix strategy which eventually translates to better performance.

### **5.2 Recommendations**

The study recommends that the motor insurance companies should work toward investing more on risk controlling, risk avoidance, risk-based audit and product mix strategies in order to improve their performance. This because the study found out that risk controlling, risk avoidance strategy,



risk-based audit strategy and product mix strategy has a positive and significant effect on performance of Motor Insurance Companies

The study recommends for insurance companies to deal with some risk events that arise early in the company by identifying requirements, acquiring information, improving communication, or acquiring expertise. Minimization of scope to avoid high-risk activities, increasing resources or time, using a familiar approach instead of an innovative one, or avoiding an unfamiliar subcontractor may be examples of avoidance. Lastly the study recommends that the Project stakeholders should use multiple models for estimating motor vehicle insurance companies in Kenya and duration rather than relying on past experience and cost data from consultants. Lastly, motor vehicle insurance companies in Kenya stakeholders should improve on performance of projects by introducing a risk management models in each project execute

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