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Risk Management Strategies and Performance of Insurance Companies in Kenya

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ABSTRACT

Purpose: The purpose was to study the effect of risk management practices on the insurance companies performance in Kenya.

Methodology: The study embraced descriptive survey design. This study's target population comprised of all the 56 insurance firms in Kenya that are duly registered, licensed and regulated by the IRA. Since the number of insurance firms are few, this study proposed to use census survey and it purposively used underwriting managers as a source of crucial information for the study. This study relied on both primary and secondary data. Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Quantitative data was analyzed using descriptive statistics including frequency, percentages and means, summary graphs, pie charts and frequency distribution tables was employed. This study also conducted inferential statistics through correlation analysis. The study results was presented through use of tables and figures.

Findings: The study found out that revealing that all four strategies significantly enhance financial stability, profitability, and operational efficiency, with Risk Reduction Strategy having the strongest effect.

Unique Contribution to Theory, Practice and Policy: To strengthen performance, firms should adopt structured risk assessment frameworks, invest in predictive analytics, enhance loss prevention programs, and expand risk transference mechanisms such as reinsurance partnerships. Additionally, fostering a strong risk management culture through employee training and regular strategy reviews is essential for long-term sustainability. The study recommends further research on the role of technological advancements, regulatory compliance, and economic factors in risk management, as well as the impact of policyholder behavior on insurance firms' financial resilience and market competitiveness.

Keywords: *Risk management, Insurance, Performance, Financial resilience, Regulatory Compliance.*

Background of the Study.

The Kenyan insurance industry, regulated by the Insurance Regulatory Authority (IRA), comprised 56 insurance companies by 2021. Gross premium income grew from KES 229.50 billion in 2019 to KES 234.78 billion in 2020, with general insurance contributing 56.5%. Despite the industry's growth, challenges such as insolvencies, poor underwriting practices, and weak risk management were evident (IRA, 2021). Risk management emerged as critical for insurance performance, with scholars like Meredith (2016) and Okotha (2017) emphasizing its role in enhancing financial stability. Risk management encompasses identifying, analyzing, and mitigating risks affecting business operations. Studies by Rejda (2018) and Ondiek (2017) highlighted key strategies: risk retention, avoidance, reduction, and transfer. These approaches aimed at minimizing losses and improving company resilience.

Globally, PwC (2018) observed that ineffective risk management contributed to insurance failures. Regional studies also pointed to weak risk evaluation among African insurers, notably in Kenya and Ethiopia, despite their growing markets (Swiss Re, 2015). Locally, Kenya's insurance sector accounted for 70% of the East African market, yet faced challenges such as fraud, capital inadequacy, and unethical competition (IRA, 2021). Several companies collapsed, including Kenya National Assurance, United Insurance, and Resolution Insurance.

Strategic risk management practices became increasingly crucial as the industry adjusted to International Financial Reporting Standards (IFRS17) requirements, prompting mergers and acquisitions. Risk management was seen as vital to aligning internal strengths with external opportunities (Tatar & Moradi, 2017). Previous studies in different contexts examined general risk management, but limited research focused on how strategic risk acceptance, avoidance, reduction, and transfer influence insurance performance in Kenya. The present study was therefore designed to fill this gap by assessing the effect of strategic risk management practices on the performance of insurance companies in Kenya.

The study was guided by the following specific objectives;

i. To assess the influence of risk acceptance on strategy performance of insurance companies in Kenya.
ii. To determine the influence of risk avoidance strategy on performance of insurance companies in Kenya.
iii. To assess the influence of risk reduction strategy on performance of insurance companies in Kenya.
iv. To establish the influence of risk transference strategy on performance of insurance companies in Kenya
v.

Literature Review

Theoretical Review

The study utilized four theories to anchor its analysis of strategic risk management practices in the insurance sector. Situated Rationality Theory (Lawson, 2006) supports the risk acceptance variable by suggesting that individuals often take risks for rational, context-specific reasons, not irrationality. People weigh social, psychological, and perceived benefits before engaging in risky behavior, as supported by examples in occupational safety and peer influence studies (Finucane et al., 2000; Chouldry & Fang, 2008). On the other hand, Utility Theory, advanced by Jeremy Bentham (1748), underpins the risk transfer variable by explaining that risk-averse individuals purchase insurance for peace of mind and satisfaction. Even without regulatory compulsion, individuals rank choices based on perceived utility, preferring insurance to mitigate uncertain future losses.

Stakeholder Theory (Freeman, 1984) relates to the risk reduction variable. It posits that balancing stakeholder interests, such as maintaining customer trust and reducing financial distress, is crucial for firm value. Corporate risk management practices lower distress costs and enhance organizational resilience, making them a strategic imperative. Agency Theory (Jensen & Meckling, 1976) also supports the risk reduction variable, emphasizing the principal-agent relationship. It asserts that agents (managers) must act in the best interests of principals (owners), requiring clear objectives and strategic alignment. Proper risk management ensures agents make decisions that protect organizational assets, maintain competitive advantage, and enhance performance.

Together, these theories explained why insurance companies must adopt structured risk management strategies: individuals rationally accept risk when justified, seek utility through protection mechanisms, balance stakeholder needs for sustainability, and ensure agents act in line with corporate goals. These frameworks reinforced the study's focus on strategic risk acceptance, reduction, and transfer as pathways to better firm performance.

Conceptual Framework

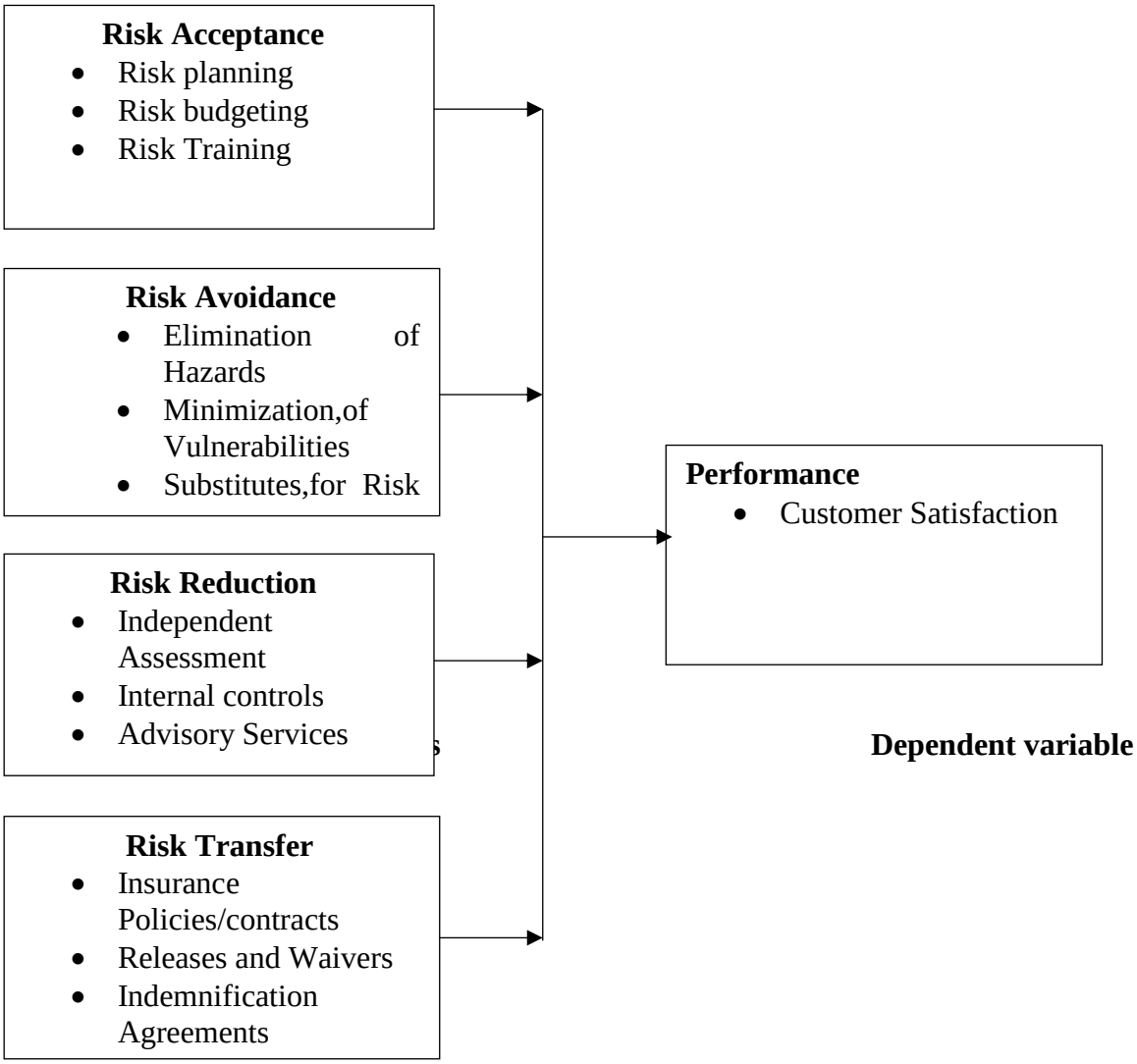

Figure 1: Conceptual Framework

Empirical Review.

Risk Acceptance and Perfomance

Credit risk is one of the hazards that insurance businesses need to control, according to the Insurance Regulatory Authority (IRA) of Kenya. IRA pointed out that insurance companies depend on receiving payments from other parties, such as investment counterparties and reinsurers. It's possible that the counterparties won't be able to make their ongoing payments on time or at all (Authority, 2013). The non-performing receivables expose the companies to credit risks. Therefore, if appropriate steps are not taken to guarantee receivables are recovered on time, the insurance companies may face financial difficulties. The rule agrees with the perspectives using a credit card risk hypothesis by Merton (1974) which stated that the default occasion gets from a company's resource development displayed by a dispersion cycle with consistent boundaries. The hypothesis underscores that a firm can have the option to identify the chance of default assuming the worth of its resources is not exactly the guaranteed obligation reimbursement at a predefined time. Surviving writing shows that reviews have taken on this hypothesis and certified that credit risk adversely influences the monetary presentation of a firm (Ekinci, 2016; Gadzo et al., 2019; Isanzu, 2017; Munangi and Bongani, 2020; Saleh et al., 2020). Risk budgeting is an established approach in asset management that aims to allocate a given risk budget efficiently over a set of asset classes, or a set of active investments (see, e.g., Litterman, 1996, Blitz and Hottinga, 2001, Lee and Lam, 2001, Chow and Kritzman, 2001, Sharpe, 2002, Molenkamp, 2004, Berkelaar, Kobor and Tsumagari, 2006, and Berkelaar, Kouwenberg and Kobor, 2006). Berkelaar, Kobor and Tsumagari (2006) explain that a risk budgeting process involves risk measurement (What is our total risk today?), risk attribution (Which assets generate the total risk?), and risk allocation (How to better allocate risk in the future?).Risk monitoring is an essential step in the overall risk management procedure. Since risk management is a perpetual and dynamic exercise, monitoring will always remain crucial in understanding the risks and how the implementation of changes affects them. The monitoring process offers valuable information to teams performing risk management operations and higher-ups who want to keep track of the progress.(zeeshan ali) ud.

A study by Kokobe (2016) was conducted on impact of the risk retention strategies on the financial performance in Ethiopia’s insurance industry. The study assessed monetary performance on return on equity and loss ratio over a period of twelve years and found out that risk avoidance technique had a negative relationship with financial performance evaluated using Return on Equity (ROE) loss ratios. The study focused on financial performance and was conducted in different country hence need to determine how risk avoidance strategies affect general performance of insurance industry in Kenya.

Ndambiri and Kimutai (2018) investigated risk retention response and performance of health systems in public hospitals in Nyeri County whose objective was the assessment of risk responses planning on performance of health systems digitization projects. Performance was measured using

cost, quality, schedule, customer metrics, learning and growth. The research designed adopted was descriptive with a target population of 65 heads of departments drawn from five public hospitals. The study concluded that risk retention response had the highest level of application which had a greatest impact on system. The study focused on public hospital while the current study focused on insurance companies.

Insurance is one of the most regulated industries in the world. Also, there are multiple players which offer every type of insurance. As a result, the competitive pressures are very high. This ensures that the insurance companies are not able to charge exorbitant premiums.Almost every insurance company across the world is a price taker and not a price maker. This means that they are forced to sell insurance at a price prevailing in the market. Hence, these companies can only become profitable if they control costs. For this reason, it is important to understand the main drivers of costs in the insurance industry.This includes Complexity which in insurance industry refers to the fact that the same company can have several brands and can offer several different products. For instance, insurance companies use different brands to sell life insurance and general insurance products.,Back Office Operations (Back office operations are a major cost element in the insurance industry. All policies that are purchased need to be verified and entered into a central system. Similarly, every claim also needs to be verified and logged on in a central system.There are lengthy processes which need to be followed each time. This means that the insurance business is prone to a lot of paperwork and administrative processes. These processes are important from a risk mitigation point of view. And Technology. Insurance companies have discovered that by using digitization, companies can reduce their costs by a large amount while simultaneously improving customer service.(IRA 2013).

Risk Avoidance Strategy and Performance.

A study conducted by Olweny (2018) investigated risk avoidance strategies used by insurance companies in Kenya and how they affect corporate governance. The study's population consisted of 42 insurance companies with the study adopting descriptive research design. The results suggested that insurance companies had adopted risk avoidance strategies namely; mechanism that facilitate the estimation of potential losses prior to entering into any contract, training of employees as well as frequent monitoring and communication of risks to employees which resulted to not only stable but financially sound companies. The study emphasis was on 23 corporate governance aspect thus a gap on how risk avoidance strategies affect performance using financial measures.

Kor and Leblebici (2005) & Hamilton and Shergill (1993) finds that managing resources will results to higher outcome under diversification. Minimisation of risks and attainment of high firm size will lead towards achievement of goals.

A study by Eisenmann (2002) found that the Managerial risk connects with organizational risk and further showed that the risk taking and risk avoidance behaviour was dependend on the ownership structure. They analysed whether to diversify their assets or not under increasing perishable

business environment. Bettis and Mahajan (1985) found that diversification minimises risk and enhances performance. Diversification is the best way for minimising risks to target level among the securities and in firm assets.

Aduma and Kimutai (2018) analyzed impact of risk avoidance strategies on performance of NHIF projects in Kenya. Out of 651 management staff drawn from all departments targeted 241 responded. The study utilized descriptive statistics and analyzed using multiple regression analysis. The authors concluded that risk avoidance strategies through the use of safety inspections, safety systems and detailed planning considerably affected the project's performance. The parameters used to test risk avoidance variables used were unique to the industry and it would be of interest to determine effect of risk avoidance using different parameters in a different industry.

Risk Reduction and Performance

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 firms assets.

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 particulary customer satistfaction 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

Insurance firms take part in pooling assets from policyholders and contributing them to produce pay. The organizations are accordingly confronted with market gambles with that connect with the level of risk inherent in the venture portfolio. Insurance firms ought to along these lines deal with their portfolio by putting resources into okay resources and keeping away from risky investments. Risk levels are additionally impacted by the nature of individual ventures (Authority, 2013). The rule certifies the perspectives on Current Portfolio Hypothesis that risk is inescapable, however it is workable for a firm to build a productive frontier of ideal portfolios, offering the most extreme conceivable anticipated return for a given level of risk (Markowitz, 1952). The rate of Insurance penetration in Kenya has remained historically low compared to other major economies, with the insurance penetration coming in at 2.3% as at FY'2022, according to the Kenya National Bureau of Statistics (KNBS) 2023 Economic Survey.One factor attributed to this is customer satisfaction.In the insurance industry, customer satisfaction can be defined as the extent to which

a company's products or services meet or surpass a customer's expectations. A satisfied customer will see value in their insurance policy and will likely remain loyal to the company. They will also serve as positive promoters by spreading good word-of-mouth among their peers, potentially attracting new customers. Increasing the levels of Service Assurance as perceived by a customer would increase the level of Customer Satisfaction.Client who perceives Service Assurance from their insurer is bound to have higher satisfaction than a customer who does not perceive it. Customer satisfaction plays a crucial role in the insurance industry, impacting policy renewals and overall business growth. This relationship forms a foundation of trust, reliability, and understanding that drives customer loyalty. Satisfied insurance customers are more likely to not only renew their policies, but also recommend the services to others, therefore potentially increasing the company's customer base and profits. Moreover, it reduces the cost of acquiring new customers, thereby saving resources that can be better invested for growth

Risk Transfer and Performance.

Aduloju and Ajemunigbohun (2017) examined reinsurance as a risk transfer strategy and performance of insurance firms in Nigeria that transfer all risk to reinsurance businesses. Return of equity, ceded ratio, return on asset and ratio of reinsurance recoverables to policyholders' surplus were used to measure performance. The study adopted descriptive research and purposive sampling technique. The population was 56 insurance companies with primary data obtained from 248 respondents as well as information obtained from published fiscal annual reports covering 2014 and 2015 years. The study revealed that insolvency risk faced by insurance companies is reduced by purchasing reinsurance which stabilizes loss experience.

Aduma and Kimutai (2018) conducted a study in Nairobi Kenya to investigate risk management practices conducted at the National Hospital Insurance Fund in Nairobi. A descriptive research design was adopted in the study and a total of 651 management employees at NHIF were the study' target population. A stratified proportionate random sampling technique was employed and the sample size was 241. Self-administered questionnaires were then administered to the study respondents who consisted of staff from finance, Health insurance and legal affairs, Public procurement and human resources departments. The data collected was then analyzed using both descriptive statistics and inferential statistics a test for multicollinearity. Findings of the study revealed that risk transfer influenced performance of NHIF in that use of outsourcing, high cost of risk premiums and insurance policy and contractual agreements to a third party greatly influenced performance of the Funds projects.

In a study undertaken by Sing'ombe (2016), the research sought to determine how risk transfer through reinsurance programmes affected the fiscal performance of Kenya's insurance companies. The study adopted analytical survey and correlation research design. The population included all insurance companies in existence in the period covering 2013- 2015 and the source of data was

secondary. The study concluded that reinsurance programmes had a positive but insignificant relationship to insurance firms' performance.

Research Gap

Much has not been done on the financial performance of insurance firms in Kenya. According to Boadi, et al. (2013), studies on profitability of Insurance industry have not carried out especially in emerging and developing markets. Cagil and Karabay (2010) assert that most of the studies on insurance industry have used Data Envelopment Analysis to assess their financial performance with a few studies using multivariate analysis. It is because of this reason that the present research used multivariate analysis to study the influence of risk management practices on financial performance of general assurance firms in Kenya with a concentration on adverse selection problem. As a result, this study is designed to fill the aforementioned gaps and provide concluding recommendations having the main objective of analyzing. However, these studies failed to show whether there is a significant relationship between risk acceptance,risk avoidance,risk reduction and risk transfer as mitigation strategies has significant impact on performance of motor insurance companies on the performance of motor insurance companies in Nairobi

Research Methodology

This study adopted a descriptive survey design to examine the influence of strategic risk management strategies on the performance of insurance companies in Kenya (Shields & Rangarajan, 2017). Both quantitative and qualitative methods were used to investigate the relationship between key variables, allowing comparative and comprehensive data collection (Teddlie & Tashakkori, 2019). The target population comprised all 56 licensed insurance firms in Kenya, focusing on underwriting managers due to their expertise in operational risk management (IRA, 2020). Given the manageable population size, a census survey approach was employed (Mugenda & Mugenda, 2012).

Primary data was collected using semi-structured, self-administered questionnaires, while secondary data was drawn from company reports and regulatory publications (Kothari, 2018; Cooper & Schindler, 2017). The questionnaire sections captured demographic information, independent variables, and the dependent variable (performance). Pilot testing was done on 10% of the sample to test validity and reliability through factor analysis and Cronbach's Alpha (Creswell, Vicki & Clark, 2011; Sekaran & Bougie, 2010). Quantitative data was analyzed using descriptive statistics including frequencies, percentages, and means, while inferential statistics such as Pearson's correlation and multiple regression analysis were applied to test relationships between variables (Mugenda & Mugenda, 2018). A generic multiple regression model linking strategic risk acceptance, avoidance, reduction, and transfer strategies to firm performance was developed.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$

Where:

Y – the dependent variable, Performance

X1 - Strategic Risk Acceptance

X2 - Strategic Risk Avoidance

X3 - Strategic Risk Reduction

X4 - Strategic Risk Transfer

ε - error term

To ensure robustness, diagnostic tests were conducted for normality, linearity, multicollinearity, heteroscedasticity, and autocorrelation (Hair et al., 2010; Saunders et al., 2013; William et al., 2013). Variance Inflation Factor (VIF) and tolerance values were used to detect multicollinearity, while Kolmogorov–Smirnov tests assessed normality (Leech et al., 2011). These steps ensured the study's findings were valid, reliable, and generalizable to Kenya's insurance sector.

Results

The descriptive analysis revealed that most insurance companies in Nairobi County actively practice risk acceptance, with a majority agreeing that their organizations assess and plan for potential risks (mean = 3.78) and integrate risk budgeting into operations (mean = 4.21). Confidence in financial stability was moderate (mean = 3.82), while transparency and effective communication around risk management had lower agreement levels. On risk avoidance, findings indicated moderate adoption, with companies requesting full disclosures (mean = 3.54) and conducting pre-insurance inspections (mean = 3.71). However, the setting of clear risk limits recorded relatively neutral responses (mean = 3.02), suggesting room for improvement in formal risk restriction policies. For risk reduction, the strongest practices observed included comprehensive pre-insurance inspections (mean = 4.40) and advisory services to clients (mean = 3.91). Respondents moderately agreed that action plans and financial adjustments post-risk occurrence were applied, supporting structured risk reduction strategies. In terms of risk transference, the majority agreed that insurance derivatives and partnerships with other insurers were used to manage high-risk exposures (mean = 4.04 and 4.08 respectively). However, reinsurance practices received moderate agreement (mean = 3.27), highlighting varied reliance on traditional risk-sharing methods. Regarding company performance, respondents strongly agreed that risk management strategies have boosted profitability (mean = 4.14) and enhanced employee satisfaction (mean = 4.24). Market penetration (mean = 3.87) and repeat purchases (mean = 3.60) also showed positive trends, confirming that strategic risk management is linked to better operational outcomes. Overall, the findings emphasized structured risk management's role in enhancing firm stability and profitability.

Inferential Statistics

Both correlation and regression analyses were performed to find out the degree of relationship between the variables and the contribution of independent variables towards the dependent variable for correlation and regression respectively.

Correlation Analysis

Correlation analysis identified the existence or otherwise of relationship between performances of listed insurance companies in Kenya and all the other variables. Pearson Product Moment Correlation coefficient was used, the correlation coefficient (r) was used to establish whether there was linear relationship between the variables of interest in the study. The coefficient of determination (r^2) was used to check for goodness - of - fit. The value of r ranges between -1 and +1, r = 0 implies no correlation, r = 1 means perfect correlation.

The correlation analysis assesses the relationship between the performance of listed insurance companies in Kenya (Y) and the independent variables (X1, X2, X3, and X4) using Pearson's Product Moment Correlation coefficient (r). The correlation matrix in Table 4.12 shows that all independent variables have a positive and significant correlation with performance at the 0.01 significance level, indicating strong associations. Among the variables, X3 (possibly risk reduction strategy) has the highest correlation with performance (r = 0.800), suggesting it has the strongest influence on firm performance. X2 (likely risk avoidance) also shows a high correlation (r = 0.763), followed by X4 (possibly risk transfer) at r = 0.700, while X1 (risk acceptance) has the lowest correlation at r = 0.653. The significant positive relationships imply that improvements in these risk management strategies contribute positively to the performance of insurance firms. Additionally, strong inter-correlations among the independent variables, such as X2 and X4 (r = 0.872), suggest potential interdependencies in risk management strategies. The coefficient of determination (r^2) would further clarify how much variation in performance is explained by these variables, confirming the effectiveness of risk management strategies in enhancing the performance of insurance firms.

Table 1: Correlation matrix for all variables

Correlations						
		Y	X_1	X_2	X_3	X_4
Y	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	99				
X_1	Pearson Correlation	.653**	1			
	Sig. (2-tailed)	0				
	N	99	99			
X_2	Pearson Correlation	.763**	.598**	1		
	Sig. (2-tailed)	0	0			
	N	99	99	99		
X_3	Pearson Correlation	.800**	.780**	.804**	1	
	Sig. (2-tailed)	0	0	0		
	N	99	99	99	99	
X_4	Pearson Correlation	.700**	.617**	.872**	.760**	1
	Sig. (2-tailed)	0	0	0	0	
	N	99	99	99	99	99

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

Multiple Regression Analysis

Model Summary

According to the results presented in Table 2, the value of R square is 0.877. This shows that 87.7% difference in financial performance can be credited to these changes in Risk Acceptance , Risk avoidance , Risk reduction strategy and Risk transference strategy . The remaining 12.3% suggests other factors exist that are helpful in explaining variation in Performance of insurance companies excluded in this study.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936[a]	.877	.868	.033767

a. Predictors: (Constant), Risk transference strategy , Risk avoidance , Risk Acceptance , Risk reduction strategy

According to Hoyt and Liebenberg (2021), effective risk management practices, including risk acceptance, avoidance, reduction, and transference, significantly contribute to financial stability and performance in insurance companies. Similarly, Meulbroek (2022) emphasizes that integrating risk management strategies enhances financial outcomes by minimizing uncertainties and ensuring operational efficiency. McShane, Nair, and Rustambekov (2021) further highlight that firms with comprehensive risk management frameworks tend to outperform those with fragmented approaches, reinforcing the high R-square value observed in this study. These findings confirm that a well-structured risk management approach is a key driver of financial performance in the insurance sector, though additional factors beyond risk management may also contribute to performance variations..

Analysis of Variance

Variance analysis shows the developed model's significance. In this research, the model significance was tested at significance level of five percent.

From the findings in Table 3, the significance of 0.000 is below the chosen significance level of 0.05, meaning it can be considered significant. These results prove that the F-calculated value (16.344) was above the F-critical value ($F_{4,333}$=2.550); this insinuates that the variables, Risk Acceptance , Risk avoidance , Risk reduction strategy and Risk transference strategy can be used to predict Performance of insurance companies .

Table 3: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.233	4	.308	92.716	.000[b]
	Residual	.173	333	.003		
	Total	1.406	99			

a. Dependent Variable: Performance of insurance companies

b. Predictors: (Constant), Risk transference strategy , Risk avoidance , Risk Acceptance , Risk reduction strategy

Hoyt and Liebenberg (2021) demonstrate that enterprise risk management (ERM), which includes risk acceptance, avoidance, reduction, and transference, has a positive impact on firm value and financial performance. Similarly, McShane, Nair, and Rustambekov (2021) highlight that a comprehensive risk management approach leads to better financial stability and competitive advantage in the insurance sector. Meulbroek (2022) further argues that strategic risk management enhances operational efficiency and reduces volatility, reinforcing the significance of the model in explaining performance.

4.7.2.3 Regression Coefficients of the Study Variables

This regression equation model was used to fit the regression coefficient.

$Y= \beta 0+ \beta_1X_1+\beta_2X_2+ \beta_3X_3+ \beta_4X_4+ \varepsilon$. Where, Y= Performance of insurance companies , β_0= constant (coefficient of intercept), X_1= Risk Acceptance s; X_2= Risk avoidance ; X_3= risk reduction strategy ; X_4= risk transference strategy ; ε = error term.

From the findings presented in table 4.18 below, the following regression equation was fitted;

Multiple regression Analysis Results

$Y= 1.347 + 0.347 X_1 + 0.196 X_2+ 0.338 X_3+ 0.279 X_4$.....v

Observing the equations, it can be noted that when all the other variables (Risk Acceptance , Risk avoidance , Risk reduction strategy and Risk transference strategy) remain at constant zero, a constant value of 1.347 was held by the Performance of listed insurance companies .

The results depict risk management strategies significantly impacting Performance of listed insurance companies (β=0.347, p=0.001). These results insinuate that Risk Acceptance is significantly influences Performance of insurance companies in a positive way. Meaning, a unit rise in risk management strategies leads to a rise in Performance of insurance companies , by 0.347 units.Recent studies corroborate the significant impact of risk management strategies on the performance of insurance companies. For instance, a study by Obeng Yankson et al. (2022) found that effective risk management capabilities enhance the financial performance of insurance firms, with a positive moderating effect on the relationship between service innovation and financial outcomes. Similarly, research by Waweru and Kisaka (2021) demonstrated that comprehensive risk management practices, including risk acceptance, avoidance, reduction, and transference, significantly influence the financial performance of insurance firms in Kenya. The study found that Risk transference strategy has an influence on Performance of listed insurance companies (β=0.279, p=0.013). As a result, a unit rise in Risk transference strategy lead to a 0.279 unit rise in the Performance of insurance companies . The study's findings support Maki's (2012) finding that there is a positive significant relationship between Performance of insurance companies and Risk transference strategy.

Recent studies corroborate the significant influence of risk transference strategies on the performance of insurance companies. For instance, the Geneva Association (2022) emphasizes that insurers are increasingly adopting strategic shifts beyond traditional risk transfer to contain costs and preserve insurability, thereby enhancing overall performance. Similarly, the Bank for International Settlements (2023) highlights that life insurers are developing risk-sharing strategies, such as transferring risks to affiliated or non-affiliated insurers, to reduce profit margin pressures and improve financial stability.

Risk reduction strategy has an influence on Performance of listed insurance companies (β=0.338, p=0.018). The studies also revealed that decision-making procedures on investment had a desirable impact on Performance of insurance companies . These findings imply that investing decision-making procedures exhibit a favourable impact on Performance of insurance companies . As a result, a unit increase in Risk reduction strategy processes leads to a 0.338 unit rise in the Performance of insurance companies . The study's findings accord with Mweresa (2018) that investment in manufacturing has a huge effect on a company's Performance of insurance companies .Recent studies corroborate the significant influence of risk reduction strategies on the performance of insurance companies. For instance, a study by NEAM Group (2024) indicates that since 2020, U.S. property and casualty insurers have reduced certain investment portfolio risks, assuming more underwriting risk, which has positively impacted their financial stability and performance. Similarly, research by Waweru and Kisaka (2021) demonstrates that comprehensive risk management practices, including risk reduction strategies, significantly influence the financial performance of insurance firms in Kenya.

Risk avoidance has great effect on Performance of listed insurance companies (β=0.196, p=0.041). The outcomes went ahead to suggest that Risk avoidance have positive influence on performance of insurance companies. These results show that Risk avoidance positively and significantly influence financial wellbeing. Meaning, a unit rise in Risk avoidance will leads to a rise in Performance of insurance companies by 0.196 units.

Recent studies corroborate the significant impact of risk avoidance strategies on the financial performance of insurance companies. For instance, a study by Waweru and Kisaka (2021) examined the relationship between risk management and financial performance of insurance firms in Kenya over the period 2013–2020. The results showed that risk management significantly affects the financial performance of insurance firms.

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.347	0.258		5.221	.000
	Risk Acceptance	0.347	0.103	0.439	3.369	.001
	Risk avoidance	0.196	0.077	0.226	2.545	.041
	Risk reduction strategy	0.338	0.138	0.402	2.449	.018
	Risk transference strategy	0.279	0.108	0.327	2.583	.013

a. Dependent Variable: Performance of insurance companies

5.3 Conclusion

The study confirmed that risk management strategies are essential determinants of financial performance in the insurance sector. A balanced risk management framework combining risk acceptance, avoidance, reduction, and transference enhances a firm's ability to sustain profitability, optimize resource utilization, and build stakeholder confidence. Insurance firms must continuously refine their risk management approaches to adapt to evolving industry trends, regulatory changes, and emerging risks.

5.4 Recommendations

The study recommended that insurance companies enhance performance by developing structured risk assessment frameworks, training employees in risk evaluation, and adopting strict underwriting guidelines. Firms should invest in predictive analytics and advanced technologies to identify and mitigate risks proactively. Given the strong impact of risk reduction, companies should prioritize loss prevention, underwriting improvements, and customer advisory services. Strengthening risk transference strategies through expanded reinsurance partnerships and alternative mechanisms like catastrophe bonds was also advised. Building a strong risk management culture with continuous training and leadership commitment was emphasized, alongside regular reviews and updates to risk strategies. Future research should explore the role of technological advancements, regulatory compliance, and market competition in insurance performance. The study also proposed longitudinal studies to assess the long-term impact of risk strategies, while comparative studies across markets to highlight regional best practices.

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