EFFECT OF INDUSTRY DYNAMICS ON INSURANCE PENETRATION RATE IN NAIROBI, KENYA

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ABSTRACT

Kenya's insurance penetration rate had been volatile in the last decade, with the year-on-year insurance penetration rate dropping from 2.88% in 2015 to 2.37% in 2019. This sharp drop-in insurance penetration rate presented a key challenge in the industry's growth hence is vital for more conclusive research to be conducted examining explanatory factors to this trend. The current research sought to examine the effect of industry dynamics on the insurance penetration rate in Kenya. The first objective reviewed the effect of price undercutting strategies (premium, penetration, and skimming pricing) on the insurance penetration rate. The second objective sought to establish government intervention (regulations, subsidies, and price controls) on the insurance penetration rate. each insurance firms. The sample size has determined by the Yamane formula was 144 senior managers. The study used primary research data, with a structured questionnaire being the main tool for data collection. The research relied on Google forms and physical questionnaires in the data collection. The collected research data was edited and coded for quantitative statistical analysis involving descriptive techniques, correlation analysis, and multiple regression analysis. The research indicated that premium pricing had a negative and insignificant influence on the insurance penetration rate. In contrast, penetration pricing and skimming pricing had a positive and significant effect on the insurance penetration rate in Kenya. The analysis established that government interventions had a positive and significant influence on the insurance penetration rate. The results also showed that pricing controls had no significant effect while regulations and government subsidies positively and significantly affected the insurance penetration rate. The study also recommends that insurance firms collaborate with the regulatory body to develop support programs such as an effective tax policy, subsidies, incentives, and tax reliefs that can improve the industry competitiveness. Further, insurance firms should routinely review their pricing strategies to ensure consistent regulations and the business landscape. This will ensure that pricing strategies meet the competitive goals of the firms.

Keywords: **Insurance Penetration Rate, Premium Pricing, Penetration Pricing, Skimming Pricing, Regulations, Subsidies, Price Controls**

INTRODUCTION

Swiss Re (2020) reports show that in the last decade, the overall insurance penetration rate within developed markets has faced chronic problems and has averaged poorly compared to developed economies. Within the developed markets, the insurance penetration rate has averaged around 9.6%. There was also considerable growth in the penetration rate in Europe and Middle East Asia. In a separate report focusing on Asian economies, Swiss Re (2019) stated that in 2018

the total insurance penetration rate in emerging markets declined because of contraction in the life sector, mainly in China. Over the longer term, however, the penetration rate in both life and non-life has been stable upward, most notably in emerging Asia. The average per capita spending on insurance (density) in emerging markets was USD169 in 2018, and the insurance penetration rate (premiums/GDP) was 3.2%. Comparatively, Insurance Information Institute (2019) noted that the global life insurance penetration rate has significantly grown from 2.6% to 5.4% between 2012-2016. However, the global insurance penetration rate has lagged behind economic growth with a notable decline over the last decade from a penetration rate of 7.5% in 2005 to 6.28% in the year 2016.

In sub-Saharan Africa, South Africa is the most developed market for the insurance industry with a 16.99% insurance penetration rate, followed by Namibia at 6.69% and Lesotho at 4.76% (PWC, 2018). On the other hand, per the Insurance Information Institute publication, South Africa alone contributes only 0.98% of the global premium volume in 2017. Nigeria, the most populous nation on the continent, contributes 0.02% of the worldwide premium (Insurance Information Institute, 2019). The insurance penetration rate in East Africa is also minimal; per Uganda's insurance regulatory annual report, the insurance penetration rate stood at 0.84% in 2018, a slight increase from 2017 of 0.81% (Insurance Regulatory Authority of Uganda, 2018). In Tanzania, the insurance penetration rate stood at 0.53% and 0.54% in 2018 and 2017, respectively (Tanzania Insurance Revenue Authority, 2018). The insurance penetration rate in East Africa is also minimal; per Uganda's insurance regulatory annual report, the insurance penetration rate stood at 0.84% in 2018, a slight increase from 2017 of 0.81% (Insurance Regulatory Authority of Uganda, 2018). In Tanzania, the insurance penetration rate stood at 0.53% and 0.54% in 2018 and 2017, respectively (Tanzania Insurance Revenue Authority, 2018).

As per the Association of Kenya Insurers (AKI) Insurance Industry Annual Report (Association of Kenya, 2016), a gross written premium (GWP) of Kes216.11 billion was recorded in 2018, which is a growth of 3.05% as compared to 2017 performance of Kes209.70 billion. The non-life total premium represented 59.62% (Kes128.85 billion), and the life business took 40.38% (Kes87.26 billion). The non-life business grew by 2.22% compared to 2017 performance, while the life business recorded a 4.31% over 2017 actual. Per the Insurance Regulatory Authority (IRA), the growth of 2.2% is much lower than the previous four years' average industry growth of 8.7% (IRA, 2020). The insurance penetration rate had been declining from 2.93% in 2014 to 2.43% in 2018. On the other hand, the country's Kenya Gross Domestic Product (GDP) has been growing steadily at Market Price from Kes5,402.4 billion in 2014 to Kes8,905 billion in 2018 (IRA, 2018). This shows that the premium generated by the economy is not growing proportionately. The logical question one can ask here is why the premium generated from the market is not growing as expected, and the insurance penetration rate is in the declining trend?

The Courier (2020) indicated that with the emergence of the Internet of Things (IoT), the insurance industry's market dynamics had changed the landscape within the insurance market. The reports revealed that government regulation, market segmentation, value-added services, competitive strategies, and product development are critical to business expansion within the insurance industry. Tian, Jiang, Pan, and Zhang (2018), in a review of non-life insurance price dynamics in China, noted that economic and institutional factors are significant determinants of price fluctuations. The study noted that gross domestic product, interest rates, stock market returns, and prices of substitute products determined non-life insurance prices. Pradhan, Bahmani, and Kiran (2014) reviewed the dynamics of insurance sector development in G-20 countries and concluded that banking sector development and economic growth significantly influence the insurance sector's development. The above studies point to an array of industry factors that are vital to fostering insurance development. Satish (2019) reviewed the dynamics of general insurance in India and revealed that improving innovation policies, discounting insurance products, price undercutting, increasing awareness, improving distribution strategies, and improving settlement policies are integral to insurance sector growth. The current study sought to identify the effect of price undercutting strategies, and government interventions on insurance penetration.

Price undercutting occurs when an insurer sets very low premiums with the intention of winning customers. This can result in poor claim payment and capital erosion within the industry (Association of Kenya, 2016). Odhiambo (2012) notes that price undercutting is one of the common phenomena within the insurance industry. By implementing undercutting strategies, firms consider the likely prices of the competitors and other players to ensure the firm sets the most appropriate price. Mkok (2013) revealed that pricing strategies are fundamental to the maximization of insurance profits. Kimani and Mburu (2016) found that increased marketing costs, high labor costs, and product valuation lead to price undercutting within the insurance industry in Kenya. However, the above studies do not focus on how price undercutting impacts insurance penetration rate, which this research sought to examine.

Government intervention through deploying standardized industry requirements, formulating regulatory actions, and creating a supervisory environment is key to driving a competitive edge within the insurance industry (Barbara & Kara, 2016). Organization for Economic Co-operation and Development (2019) revealed that the adoption of low-interest rates in Lithuania and Portugal the enactment of a low-interest-rate environment positively enhanced the supply of insurance products which fostered product offering. The report also noted that relaxing taxation of life insurance products influences their demand levels. The report indicated that macroeconomic factors such as economic growth, expansion of businesses, and a conducive environment had created a favorable environment for expanding insurance coverage. Klein (2015) revealed that government policies are critical to risk management and insurance development. Karanja (2014) opined that a shortage of government resources, poor health

systems, misuse of resources, and integration of the informal sector are the main challenges to the provision of universal healthcare through the National Health Insurance Fund in Kenya. However, the studies did not explicitly identify the link between government intervention and insurance penetration rate in Kenya.

As of January 2020, there are 5 and 56 licensed reinsurance and insurance companies in the country, respectively (IRA, 2020). The insurance market players also have their association, namely the Association of Kenya Insurers (AKI), with a mission "To champion an enabling environment for their members, and promote growth and excellence in the insurance industry." Mutembei and Njuguna (2019) opined that the liberalization of the financial sector in Kenya had fostered the competitiveness of the local and foreign insurance industry. This has resulted in an intense realignment of insurance companies in Kenya to boost their coverage and penetration level. The current research sought to examine the insurance penetration rate in Kenya as predicted by insurance dynamics. The focus of the study was the 56 registered insurance firms in Kenya as of November 2020.

Statement of the Problem

According to IRA (2018), there is consistent reporting of the impressive growth in the Kenyan insurance industry regarding firm growth and profitability of the institutions. However, at the same time, the insurance penetration rate has been steadily dropping within the country. IRA (2017) data showed that the insurance penetration rate dropped to 2.73% in 2016 from a high of 2.88% in 2015. Similarly, AKI (2016) indicated that the insurance penetration rate peaked at 3.44% in 2012, but this has considerably dropped to 2.73% by the year 2016. Over the last five years, the insurance industry has seen a decline in penetration levels, as noted by AKI (2019), who reported that the life penetration rate grew to 1% in 2019 from 0.98% in the year 2018, while within the same period, non-life insurance penetration rate dropped to 1.37% from 1.45%. Overall the penetration rate was dismal, with penetration levels at 2.37% in 2019. This lack of improved insurance penetration rate in the country can be attributed to poor insurance coverage (Mutembei & Njuguna, 2019). This lack of growth in penetration rate presented an apparent problem for insurance industry players. They seek to position the industry as a key contributor to the economic growth in Kenya. Despite this poor insurance penetration rate having attracted interest among policymakers and scholars, there is a lack of conclusive evidence on what can spur the penetration rates within the Kenyan market. This creates a knowledge gap that motivates the current research. Locally, Gladys (2017) found out that inflation, interest rate, and exchange rate negatively affects the financial performance of insurance companies in Kenya, while Turayishimye (2015) revealed that external challenges, including the government policy, industry dynamics, market forces, competition, power of buyers and suppliers, and the threat of new entrants, influence the market penetration of insurance in Kenya. The above studies point to divergent empirical evidence on the factors influencing the insurance penetration rate across

various regions. The studies, however, do not conclusively identify the effect of industry dynamics on the insurance penetration rate. This created an empirical gap that necessitates this research work. The study solved the gap by examining the effect of industry dynamics on the insurance penetration rate in Kenya.

Objective of the Research

The study's objective was to determine the effect of industry dynamics on the insurance penetration rate in Kenya.

Specific Objectives

The following research objectives guided the study.

1.4.1 To determine the effect of price undercutting strategies on the insurance penetration rate in Kenya.

1.4.2 To determine the effect of government interventions on the insurance penetration rate in Kenya.

LITERATURE REVIEW

Price Undercutting Strategies and Insurance Penetration Rate

Mwangi (2013) defines undercutting practices as charging insurance premiums that are lower than what other industry players are charging to achieve a market edge. Craciun (2013) argued that companies in the consulting field design a pricing structure that covers all their services, and their pricing strategies usually change and adjust to the market. Hence, the pricing could be premium pricing, penetration pricing, economy pricing, price skimming, psychological pricing, service line pricing, operational service pricing, captive service pricing, service bundle pricing, promotional pricing, geographical pricing and value pricing. This assumption applies to any product of the service industry.

Wang, Sun and Chang (2020) focussed on marketization, competition, and insurance pricing. The study applied a quantitative approach in the examination guided by the game theory. The study examined the non-life insurance market in china and found evidence that revenue-maximizing behaviour has resulted in operational losses with less smaller insurers being more adversely affected. The findings of the cointegration tests indicated that with more liberalized regime enforced by the regulator leads to low prices being set by larger insurance companies who can take advantage of their large market. This results in smaller insurers being pushed out of the market by the pricing enacted by the larger firms. The study identifies the insurance pricing dynamics but does not establish price undercutting strategies on insurance penetration rate which this study explored. In a research study on Kenyan insurance firms, Kinaro (2018) examined the effect of insurance pricing in the insurance sector. The study employed a descriptive research design with 73 respondents being drawn from Jubilee insurance firms. The research utilized

structured research questionnaires in the data collection. The study analyzed research data using quantitative techniques. The findings showed that claims settlement, sales promotion, government regulation and level of competition influenced the insurance pricing in Kenyan insurance firms. The study indicated that insurance firms should regularly review their pricing models to ensure consistent market trends and minimize unethical practices. The study, however, does not evaluate how the price undercutting applied within the insurance industry influences the insurance penetration rate which was examined in this study. Nyaga and Muema (2017) analyzed the effect of pricing strategies on the profitability of insurance firms in Kenya. The research adopted a descriptive research design with 45 insurance companies registered by 2012 being considered in the study. The study utilized panel data for the period 2008-2012 and research questionnaires in the data collection. The research used correlation and regression analysis techniques. Findings revealed that economy pricing, skimming pricing, premium pricing and penetration pricing had a significant effect on the firms' profitability. The study also showed that price optimization strategy was significant in explaining the profitability of insurance firms. The research, however, did not examine how the various pricing mechanisms influence insurance penetration.

Government Intervention and Insurance Penetration Rate

The insurance industry cannot operate in a vacuum, and this requires the government to play a critical role in developing regulations and policies that should be based on the purpose to promote the industry and ensure that the insurance benefits are accessible to the general public (Burling, Burling, & Lazarus, 2012). Some economists believe in the concept of an efficient market and maintain that competition will generally produce the greatest benefits to society. These economists agree that some form of government control is necessary, yet they would like the principal role of government to be maintaining competition (Okun, 2015). Insurance Regulatory Authority (2017), whose mission is to effectively and professionally regulate, supervise and develop the industry, opined that stiff competition among players reduces the insurance companies' ability to pay claims and meet other obligations.

Frean, Gruber and Sommers (2017) examined the effect of premium subsidies, the mandate, and Medicaid expansion on the Affordable Care Act (ACA) coverage in the United States. The study relied on the American Community Survey of 2015 and employed a triple-difference estimate in the analysis. The study indicated that exploiting income, geography and time explains 60% of the ACA coverage between 2014-2015. The results revealed that premium /price subsidies accounted for 40% of the coverage with little gains in state-insurance schemes. The study further showed that individual mandate exceptions and penalties have little effect on ACA coverage rates. The study also noted that Medicaid expansion among individuals predicted 60% of the coverage rates among eligible people. The study focused on ACA coverage in the United States, while the current examination reviews insurance penetration in Kenya.

In a research paper, Barasa (2016) sought to identify a framework for adoption by the insurance industry for enhancing the insurance penetration rate. The study applied a cross-sectional research design with structured questionnaires being applied in the data collection. The regression results showed that customer awareness, marketing and distribution channels, pricing and government intervention and regulatory support were key to enhancing the insurance penetration rate in Kenya. The research indicated that the government should be fully involved in industry development by drafting new laws and policies that can stimulate the insurance penetration rate in the country. However, the study failed to explore the influence of innovative strategies on the insurance penetration rate in Kenya that the current study reviewed. Ng'ang'a (2016) conducted a review of the regulatory framework for micro-insurance through a survey of insurance companies in Kenya. The study applied a mixed research design with content and descriptive analysis being adopted in the research. The study indicated there are various regulatory provisions about micro-insurance in Kenya that insurance firms in Kenya utilize. The study indicated that most of the regulations in place had limited the provision of micro-insurance in Kenya, thus stifling the development of the segment. The research revealed a need for the development of new policies and adaptation of existing policies suited to the micro-insurance service providers. The study, however, does not focus on the insurance penetration rate within the Kenyan industry which the current sought to explore.

Methodology

This study adopted a cross-sectional research design. A research design that adopts the cross-sectional survey approach is advantageous because of its cost-effectiveness per respondent in comparison with other methods; given that it employs simpler methods for data collection enabling the researcher to have a bigger sample size thus increasing the accuracy of the conclusions arrived at (Myers, Well, & Lorch, 2010). The unit of analysis of this study was the 56 registered insurance companies in Kenya as of 2020. The study targeted the Chief Executive Officer/Managing Director, Chief Operation Officer/Underwriting Manager, Finance Manager and Business Development or Marketing Manager within the firms as the observation unit for the research. The personnel are being selected for the study as they are assumed to have requisite knowledge on the insurance industry dynamics and the insurance penetration rate in Kenya.

The sample respondents for this research were 144 staff members drawn from all the registered insurance firms randomly. Data collection was done using questionnaires. The study questionnaire was structured using a 5-point Likert scale. The questionnaire was collected due to the ease in the collection of quantitative data from a large population. Further, the instrument was easily transformed to Google forms to aid in electronic data collection. The collected research data was edited and corrected for any errors before coding into the Statistical Package for Social Sciences (SPSS) for analysis. Data analysis involves examining what had been collected during experiments or surveys then making inferences and conclusions (Cresswell,

2014). The collected research data was edited and corrected for any errors before coding into the Statistical Package for Social Sciences (SPSS) for analysis. The study relied on quantitative analysis techniques. The study applied descriptive analysis to tabulate the research responses using frequencies, means, percentage and standard deviation. The study also utilized inferential analysis to determine the interaction between the independent variables. The study adopted a Spearman rank correlation to establish the type of association between variables. The research further employed a multiple linear regression to estimate the influence of the independent variables on the insurance penetration rate in Kenya. The results of the study were presented using charts and tables.

RESULTS FINDINGS AND DISCUSSION

Demographic Information

The findings demonstrated that most of the respondents, 46% (n=49), have worked within the industry for less than 5 years, 31% (n=33) had worked for between 6-10 years, while only 11% (n=12) have worked for more than 16 years. The variations in the work experience were critical to this study as they ensured that responses are obtained from people with divergent information on the insurance industry dynamics and insurance penetration rate in Kenya. The study participants were asked to identify the position they hold within the industry. Results showed that most of the respondents, 43% (n=46), were business development/marketing managers, 36% (n=39) were either chief operating officers/underwriting managers. In comparison, only 6% of the chief executive officers participated in the research. This was an indication that the respondents who took part in the survey had critical knowledge of the workings of the insurance industry; thus, they were in a position to respond to the survey reliably.

Price Undercutting Strategies and Insurance Penetration Rate

The first objectives of the study reviewed the influence of price undercutting strategies on the insurance penetration rate. The variable was measured using premium, penetration, and skimming pricing. The results were presented chronologically, with the first section presenting descriptive analysis, then correlation analysis, and finally, the regression results.

Descriptive Analysis for Price Undercutting Strategies and Insurance Penetration Rate

The variable was measured using premium, penetration, and skimming pricing. The descriptive analysis adopted mean and standard deviation in the tabulation of the results. The following criteria were applied in the interpretation; 0-1.49; strongly disagree 1.50-2.49; disagree 2.50-3.49; neither agree nor disagree 3.50-4.49; agree and 4.20-5.00 strongly agree.

Table 1 Descriptive Analysis of Price Undercutting Strategies

Statements	N	Sum	Mean	Std. Deviation
Premium Pricing				
The premium price is the main defence strategy to keep the existing client in the Kenya insurance industry	107	397.00	3.7103	1.07290
The premium price is the main winning strategy to snatch prospects from competitors in the Kenya insurance industry	107	415.00	3.8785	.93879
The premium price is the real challenge of the insurance industry in Kenya	107	433.00	4.0467	1.09358
Clients are more sensitive to the price/premium competitiveness than other services in the insurance industry in Kenya	107	432.00	4.0374	.99929
Penetration Pricing				
Setting low penetration prices for products ensures that our firm achieves a larger market appeal	107	335.00	3.1308	1.06474
Utilization of penetration pricing ensures that our firm can improve the competitive edge and limit rival firm's competition	107	356.00	3.3271	.91914
Selection of penetration pricing within the firm ensures there is an acquisition of customer loyalty with our brand	107	354.00	3.3084	1.00387
Skimming Pricing				
The firm relies on skimming prices to ensure that there is a quick recovery of cost utilized in product development	107	345.00	3.2243	1.04888
The utilization of skimming pricing allows the firm to utilize excess revenue to enhance the market share and product reach	107	352.00	3.2897	1.09035
The usage of skimming pricing ensures the firm has locked in the customers who associate with our brand	107	344.00	3.2150	.99079
Continuous usage of price skimming fosters the products and services being recognized in the market as high quality	107	346.00	3.2336	1.11236

The analysis showed agreement among respondents that clients are more sensitive to the price/premium competitiveness than other services in the insurance industry in Kenya, as indicated by a mean of 4.04 and deviation of .99. The findings showed agreement that premium pricing is the main defence strategy to keep the existing client in the Kenya insurance industry (mean = 3.71, dev = 1.07). Participants neither agreed nor disagreed that setting low penetration

prices for products ensures that our firm achieves a larger market appeal (mean = 3.13, dev = 1.06), and selection of penetration pricing within the firm ensures there is an acquisition of customer loyalty with our brand (mean = 3.31, dev = 1.00). The results also noted that respondents did not agree or disagree if the firm relies on skimming prices to ensure that there is a quick recovery of cost utilized in product development (mean = 3.22, dev = 1.05). The respondents further indicated neither agreement nor disagreement on whether the utilization of skimming pricing allows the firm to utilize excess revenue to enhance the market share and product reach, as indicated by a mean of 3.29 and high deviation in responses 1.09.

Regression Analysis for Price Undercutting Strategies and Insurance Penetration Rate

The study adopted a linear regression analysis to determine the strength of the relationship between price undercutting strategies and the insurance penetration rate in Kenya. The results are presented in this section.

Table 2 Regression Results for Price Undercutting Strategies and Insurance Penetration Rate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.398[a]	.158	.134	2.55404

a. Predictors: (Constant), Skimming Pricing, Premium Pricing, Penetration Pricing

The results yielded a coefficient of determination (R2=.158) which implied that price undercutting strategies predicted 15.8% of the changes in the insurance penetration rate in Kenya. This showed that premium pricing, skimming pricing, and penetration pricing positively determines the insurance penetration rate.

Table 3 ANOVA Results for Price Undercutting Strategies and Insurance Penetration Rate

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	126.195	3	42.065	6.449	.000[b]
	Residual	671.880	103	6.523		
	Total	798.075	106			

a. Dependent Variable: Insurance Penetration Rate

b. Predictors: (Constant), Skimming Pricing, Premium Pricing, Penetration Pricing

The study further tested the statistical significance of the relationship at a 5% significance level, and the findings indicated an F-value of 6.449 and Sig =.000<.05. This showed there is a positive and significant relationship between price undercutting strategies and insurance penetration rate.

Table 4 Regression Coefficients for Price Undercutting Strategies and Insurance Penetration Rate

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.444	1.843		2.955	.004
	Premium Pricing	-.050	.085	-.054	-.586	.559
	Penetration Pricing	.283	.103	.261	2.739	.007
	Skimming Pricing	.166	.072	.223	2.305	.023

a. Dependent Variable: Insurance Penetration Rate

The findings established a coefficient for premium pricing (β = -.50), which was not statistically significant Sig = .559>.05. The results also showed a coefficient of penetration pricing (β = .283), which was statistically significant Sig =.007<.05, which implied that a change in the penetration pricing would lead to a positive .283 change in the insurance penetration rate in Kenya. Findings also indicated a coefficient of skimming pricing (β = .166), which was statistically significant Sig =.023<.05, which indicated that a change in skimming pricing would lead to a positive .166 change in the insurance penetration rate in Kenya.

Government Intervention and Insurance Penetration Rate

The third study objective reviewed the effect of government intervention on the insurance penetration rate. The variable was measured using regulations, subsidies, and price controls. The results were presented chronologically, with the first section presenting descriptive analysis, then correlation analysis, and finally, the regression results.

Descriptive Analysis for Government Interventions and Insurance Penetration Rate

The variable was measured using the level of regulations, subsidies, and price controls. The descriptive analysis adopted mean and standard deviation in the tabulation of the results. The following criteria were applied in the interpretation; 0-1.49; strongly disagree 1.50-2.49; disagree 2.50-3.49; neither agree nor disagree 3.50-4.49; agree and 4.20-5.00 strongly agree.

Table 5 Descriptive Analysis of Government Interventions

Statement	N	Sum	Mean	Std. Deviation
Regulations				
The government should subsidize premium in some classes of business, like Agriculture and Micro Insurance	107	458.00	4.2804	.83321

Policy incentive, the like of tax relief, is necessary to insurance companies in Kenya to low premium and reach the majority of the public	107	454.00	4.2430	.91981
Reviewing regulations in place will help insurance companies to readapt to emerging global standards and practices	107	464.00	4.3364	.69965
Ensuring there is strict compliance with regulatory requirements can help foster public confidence in the insurance industry	106	476.00	4.4906	.73349
Pricing Controls				
IRA should have a mandate to issue a directive for a minimum price floor in the Kenya insurance industry	107	452.00	4.2243	1.06672
The minimum premium rate should be put in place by IRA in the insurance industry in Kenya	107	460.00	4.2991	.98302
The minimum price floor will help insurance companies to compete in other service areas, like claim service and product innovation	107	474.00	4.4299	.84800
The minimum price floor will help to increase the premium volume in the Kenya insurance industry	107	456.00	4.2617	.85049
Government Subsidies				
The government is playing a central role in subsidizing various classes of insurance to boost the uptake of insurance in the country	107	292.00	2.7290	1.12912
The government offers tax reliefs to insurance players to improve the reach of insurance products within the public	107	296.00	2.7664	1.18624
The government has designed various policy incentives that have helped insurance firms to offer low premium products within the market	107	264.00	2.4673	1.17616

The study noted strong agreement among participants that ensuring there is strict compliance with regulatory requirements can help foster public confidence in the insurance industry (mean = 4.49, dev = .733). The analysis also noted strong agreement that policy incentive, the like of tax relief, is necessary to insurance companies in Kenya to low premium and reach the majority of the public (mean = 4.243, dev = .919). Concerning price controls, the findings showed strong agreement among respondents that minimum price floor will help insurance companies to compete in other service areas, like claim service and product innovation (mean = 4.429, dev = .848). The review also noted strong agreement that IRA should have a mandate to issue a

directive for a minimum price floor in the Kenya insurance industry as indicated by a mean of 4.224 and a high deviation in responses of 1.066. About government subsidies, the respondents disagreed that the government has designed various policy incentives that have helped insurance firms to offer low premium products within the market (mean = 2.467, dev = 1.176). The study also noted that participants neither agreed nor disagreed that the government is playing a central role in subsidizing various classes of insurance to boost the uptake of insurance in the country (mean = 2.729, dev = 1.129).

Regression Analysis for Government Intervention and Insurance Penetration Rate

The study employed linear regression analysis to determine the strength of the relationship between government intervention and the insurance penetration rate in Kenya. The results are presented in this section.

Table 6 Regression Results for Government Intervention and Insurance Penetration Rate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.644[a]	.415	.398	2.12983

a. Predictors: (Constant), Government Subsidies, Pricing Controls, Regulations

The regression analysis produced a coefficient of determination (R2=.415) which implied that government interventions predicted 41.5% of the changes in the insurance penetration rate in Kenya. This showed that government subsidies, pricing controls, and regulations positively determine the insurance penetration rate in Kenya.

Table 7 ANOVA Results for Government Intervention and Insurance Penetration Rate

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	330.851	3	110.284	24.312	.000[b]
	Residual	467.224	103	4.536		
	Total	798.075	106			

a. Dependent Variable: Insurance Penetration Rate

b. Predictors: (Constant), Government Subsidies, Pricing Controls, Regulations

The research further sought to determine the statistical significance of the relationship at a 5% significance level, and the findings indicated an F-value of 24.312 and Sig =.000<.05. This showed there is a positive and significant relationship between government intervention and insurance penetration rate in Kenya.

Table 8 Regression Coefficients for Government Intervention and Insurance Penetration Rate

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	-.675	2.077		-.325	.746
	Regulations	.222	.099	.185	2.247	.027
	Pricing Controls	.097	.072	.108	1.359	.177
	Government Subsidies	.594	.070	.678	8.521	.000

a. Dependent Variable: Insurance Penetration Rate

The study results demonstrated a coefficient for regulations (β = .222) which was statistically significant Sig = .027<.05. The results showed that a change in the regulations would lead to a .222 positive increase in the insurance penetration rate. The regression coefficient for pricing controls (β = .097) which was not statistically significant Sig = .177>.05. Findings also indicated a coefficient of government subsidies (β = .594) which was statistically significant Sig =.000<.05, which indicated that a change in government subsidies would lead to a positive .594 change in the insurance penetration rate in Kenya.

Conclusions

The first objective reviewed the influence of price undercutting strategies on the insurance penetration rate in Kenya. Overall, based on the regression results, the study established that price undercutting strategies do have a positive but insignificant influence on the insurance penetration rate in Kenya. The results revealed that utilization of premium pricing, penetration pricing, and skimming pricing does not yield a significant impact on insurance penetration rates. The second objective reviewed the effect of government interventions on the insurance penetration rate in Kenya. The study concluded that government interventions have a positive and significant influence on the insurance penetration rate in Kenya. The research revealed that utilization of government subsidies, offering policy incentives, reviewing regulations, and enforcing compliance to regulatory requirements will lead to the provision of competitive insurance products and confidence in the industry. This will be vital to improved insurance penetration rate levels. Further, the study concluded that pricing controls such as IRA setting minimum price floors and premium rates are integral to driving insurance penetration rate in Kenya. The research further concluded that subsidizing various insurance classes, offering tax reliefs, and creating policy incentives will stimulate positive changes in the insurance penetration rate.

Recommendations and Implications of Research

The study recommends that the regulatory body should create a conducive environment that will support the innovative capacity within the industry. This will help the industry firms to create guidelines that can stimulate their technological, market, and product innovative capabilities.

Further, the results showed that the government has been failing in subsidizing the insurance industry. As such, the study recommends that the government, through the IRA, should advance targeted incentives that will help insurance firms to develop products and services to meet the public interest. The study recommends that insurance industry managers should continuously review their customer awareness of the various pricing strategies that are at their disposal. This will help in improving the client's knowledge of the more competitive prices available, which can lead to better uptake of insurance products and services. The study also recommends that insurance managers should evaluate the appeal of their pricing strategies within the market as they do not positively reflect on the insurance penetration rate. This can be undertaken by reviewing their rival pricing levels and setting prices that are favourable to the market. This will help the firm in driving its market appeal, retain existing clients and create a competitive edge. The study recommends that insurance firms should collaborate with the government and regulatory bodies to come up with regulations that are supportive of better insurance coverage. Further, through alliances with the regulator, the insurance firms can be able to advocate for better subsidization of premiums to vital business classes such as the SME industry and agriculture which are not well-served. Thus, through better subsidies and incentives, the insurance firms will be able to offer better-priced insurance products, which can stimulate an improvement in the insurance penetration rates. Lastly, the insurance managers should routinely involve the regulator in development or pricing regulations which can help increase the premium volume and insurance penetration rate levels through competitive pricing controls in the industry.

Future Research

The study suggests that further studies should be conducted reviewing how firm-specific factors influence the insurance penetration rate. Further, studies should be conducted to evaluate public determinants of insurance uptake in Kenya. This will help in expanding the knowledge of the various factors that are critical to stimulating insurance penetration rates.

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