Factors Influencing Price Undercutting in The Insurance Sector in Nakuru County in Kenya

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Abstract: *A number of insurance firms in Kenya have been facing several challenges. The competition has been stiff in the sector which has occasioned price undercutting. This has resulted in reduced revenue, mergers of insurance firms, down-sizing, and even collapse of these firms. In this light, tackling uncompetitive practices such as premium undercutting is a critical issue to the sector which needs to be focused on. The study aims to determine the factors influencing price undercutting in the insurance sector in Nakuru County, Kenya. The study was delimited to establishing the effect of competition, cost of operations, profit margin goals, and product value on price undercutting in the insurance sector. The theory of competition, theories of cost, arbitrage pricing theory, and Bertrand price undercutting theory guided the study. A descriptive survey research design was adopted. The study targeted all employees working with insurance firms in Kenya where the accessible population will constitute 187 accounts and finance employees working with the 11 insurance firms in Nakuru County. Stratified random sampling was employed to draw 64 sampled respondents from the accessible population. The study used a structured questionnaire to collect data from the sampled respondents. The questionnaires were first pilot tested in order to ensure it was both valid and reliable for use in collecting data for the main study. The researcher first obtained the necessary permits and consents from relevant authorities. The collected data was analyzed with the aid of the Statistical Package for Social Sciences (SPSS) Version 21 analytical tool. The analysis was in form of both descriptive and inferential statistics. Descriptive statistics comprised means, modes, variance and standard deviations. On the other hand, inferential statistics was in form of Pearson's correlation and multiple regression analysis. The results of the analysis was presented in form of statistical tables, charts and graphs. The study will be significant particularly to policy makers, practioners and scholars in the insurance sector in Kenya and beyond. From the findings the researcher concluded that huge costs go to marketing insurance products. Insurance firms also incur massive costs in terms of commissions to insurance agents. High labour costs in insurance sector leads to price undercutting. The study also concluded that insurance firms have different product lines, product value is factored in when pricing and finally different products are priced differently. The study recommended that there is need for insurance firms to use competitive strategy like timely introduction of a product and service, depending on the season and the target customers. Since majority of insurance offer similar products, Insurance should diversify their products. This will help them to have an advantage of their competitors.*

Keywords: *Competition, Insurance, Price undercutting.*

I.   Introduction

Pricing products and services is one of the most important decisions for firms since the price set determines the final profit. Therefore, firms must keep abreast of factors that influence pricing decisions and opportunities that exist to enable firms maximize revenue. Many imperfectly competitive markets are characterized by tacit collusion since the interaction of competing firms over time enables them to coordinate prices above statically competitive levels. Yet, it remains unclear how firms in imperfectly competitive markets determine the prices at which they will coordinate

The insurance industry has been growing significantly in the recent past as evident from a survey on the outlook of the insurance industry for the year 2013 by (Mose & Kuloba, 2013). The study however revealed price undercutting as one of the main challenges to growth in the sector. Various factors that have been identified which are argued to shape pricing decisions in various markets. They include cost, value, and elasticity (Stibel, 2007). In the same light, Canina and Enz (2006) added that the notion that prices are mainly subject to costs of labour and materials implies that firms delay price increases until costs rise. Similarly, when the demand is slow, business enterprises may delay price reductions for the same reason. It is noted that the cost-based pricing is not a new concept and it is argued that prices react to costs with a lag.

Statement of the Problem

The insurance sector plays a very important role in the lives of millions of Kenyans and thousands businesses. The sector enables people and business entities to carry out their daily tasks without worrying of

unforeseen future. However, there has been stiff competition in the sector which has occasioned price undercutting. This has resulted in reduced revenue, mergers of insurance firms, down-sizing and even collapse of some firms. It is argued that price undercutting leads to predatory pricing that can threaten the stability of the insurance industry if the prices fall below the optimum level .Price undercutting becomes a challenge when insurance firms are pushed out of business. This is possible when such firms fail to raise sufficient capital for their operations and growth due to reduced revenue collected from premiums paid. The implications of the foregoing are far-reaching in that there are millions of households which directly and indirectly depend on insurance firms and the services offered by these companies. Reduced revenue implies reduced taxes remitted by these firms to the exchequer. This has negative economic implications on the country's development agenda. Moreover, it has remained unclear what leads to price undercutting besides the general perception that it is as a result of cut-throat competition.

Objectives of the Study
The study was guided by the following objectives;
➢ To examine the effect of competition on price undercutting in the insurance sector in Nakuru County, Kenya
➢ To assess the effect of cost of operations on price undercutting in the insurance sector in Nakuru County, Kenya
➢ To investigate how profit margin goals influence price undercutting in the insurance sector in Nakuru County, Kenya
➢ To examine the effect of product value on price undercutting in the insurance sector in Nakuru County, Kenya

Research Hypotheses
H_{01}: The relationship between competition and price undercutting in the insurance sector in Nakuru County is not statistically significant
H_{02}: The relationship between cost of operations and price undercutting in the insurance sector in Nakuru County is not statistically significant
H_{03}: The relationship between profit margin goals and price undercutting in the insurance sector in Nakuru County is not statistically significant
H_{04}: The relationship between product value and price undercutting in the insurance sector in Nakuru County is not statistically significant

II. Literature Review
The theory of competition states that the nature of competition in market economies is very complex and is not manifested only in price competitions (Stiglitz 1984).. Firms in an industry face competition because of relative ease of entry and exit and the potential of new entrants into the market. It is ascertained that firms check out their competitors' price and then set the price of their own product and services either slightly higher, lower or at the same level. Competition also results to price discrimination for coupons which consequently leads to reduction of product prices. It is posited that many insurance companies have embarked on undercutting of specified rates for insurance risks assumed following the recapitalization of insurance companies.

The theory of cost states that behaviour of cost is related to one or more production criteria such as output size, scale of operations, prices of factors of production and other relevant economic variables (Oliver 2007).It is established that reducing costs of providing insurance indeed influenced risk management, financial intermediation and resulted in efficiency of the industry. It is argued that companies that survive are those that have the lowest cost structure. It was established that operational expenses are one of the critical factors that affect pricing of risk and premiums payable. It is noted that such factors as fixed costs, variable or operational costs, marginal cost and degree of operating leverage are crucial in determining price floor and price ceiling of firm products. Reviewed studies have indicated that lowering operating costs was crucial in increasing efficiency of conducting business.

Arbitrage pricing theory holds that the expected return of a financial asset can be modeled as a linear function of various macroeconomic factors where sensitivity to changes in each of the factors is represented by a factor-specific beta coefficient (Ross 1976). The theory further states that returns of an asset may also be affected by influences that are not necessarily systematic to the economy as a whole. In view of the foregoing theory, it was noted that profit maximization was considered to be the main pricing objective that triggers price decision making in firms. In order to make informed pricing decisions, companies were noted to collect basic information relating to their gross profit margin, their contribution margin, competitors' current prices and variable cost. It is noted that companies calculate the minimum and maximum price that they can charge on products based on their profit objectives such as a targeted profit margin.

Reviewed studies indicate that customer value oriented pricing strategy is the best pricing method for profit maximization. It is noted that customers who share a common set of expectations on products and services tend to respond favorably to a combination of value offers consisting of attributes of physical products, services and any other source of potential satisfaction and are willing to match product price based on their value. Firms extend their product lines to differentiate their offerings in order to provide different quality levels at different prices for customers willing to pay for quality. It is indicated that firms with differentiated products according to quality and costs ought to employ value pricing strategies to attract and retain customers.

Price undercutting is founded on Bertrand price undercutting theory. The theory states that a price setter has to figure out the most likely price or all other competitors or market players in order to determine the most appropriate price in spite of the same reasoning is likely to be held by rival firms (Joseph Louis Francois Bertrand 1822 and 1900).Studies have downplayed the idea of price undercutting in respect to competitor's prices as it would result to lower profitability. It is noted that firms undercut each others' prices in order to steal demand. It is established that rates undercutting was prevalent despite the growth of the insurance industry. It was also emphasized that insurance firms ought to desist from premium undercutting, rather, come up with diversified innovative products as well as realistic premiums despite the stiff competition, price war and liquidity constraints. It has been established that price undercutting by insurance marketing agents was one of the critical factors that resulted to huge losses for life insurers. It is noted that competition in the insurance industry in Kenya has been intense and has forced major players in the insurance industry to undercut their premiums rates where they offer insurance products at non-economic rates. This price undercutting is noted to be one of the main threats to profitability for insurance firms in Kenya.

Price undercutting is quite a common phenomenon in the insurance sector in Kenya and beyond. It is as a result of several factors as earlier explained in the reviewed studies. In Kenya, Odhiambo (2012) examined the factors influencing pricing strategies adopted by large alcohol manufacturers. The study noted that industry competition was one of the fundamental factors that influenced product pricing in the firms. However, the study had a number of limitations. For instance, the study did not address the insurance sector. More so, it failed to look into the aspect of price undercutting as occasioned by competition.

A study by Epetimehin and Ekundayo (2012) conducted a study on the factors that affect pricing of risk in the insurance industry in Nigeria. The study established that operational expenses are one of the critical factors that affect pricing of risk and premiums payable. However, the study did not precisely address the aspect of cost of insurance products as a factor determining price undercutting in the insurance sector. Furthermore, the study was carried out in Nigeria as opposed to Kenya.

Various empirical studies have examined the concept of pricing based on profit margin goals. For instance, Avlonitis and Indounas (2006) conducted an empirical investigation of service pricing in Greece. The study noted that profit maximization was considered to be the main pricing objective that triggers price decision making in firms. In Kenya, Mkok's (2013) study noted that companies seek to maximize profits through their pricing strategies as their key goal. However, it is clear that these studies hardly focused on price undercutting and none was concerned with the insurance sector.

A study by Odhiambo (2012) examined factors that influence pricing strategies adopted by large alcohol manufacturers in Kenya. It was noted that high product prices can be used to emphasize quality of a product or service and increase the status associated with it. It was noted that customers choose products that provide the greatest value especially in terms of overall benefits and not necessarily cost. Moreover, the study noted that firms with differentiated products according to quality and costs ought to employ value pricing strategies to attract and retain customers. Yet, the study did not address the issue of price undercutting as occasioned by product value thus factors influencing price undercutting in the Kenya's insurance industry have not adequately been addressed. The present study sought to address this research and knowledge gaps.

III. Methodology

Research Design: In respect to this study, a descriptive survey research design was adopted. This is due to the fact that the study involved respondents drawn from various insurance firms in Nakuru County

Population: The target population for the study was all employees working with insurance companies in Kenya. The accessible population included the 187 finance/accounts employees working with the 11 insurance firms' branches in Nakuru County, Kenya. These employees are believed to be sufficiently conversant with issues touching on price undercutting in their respective insurance firms.

Sample and Sampling Technique : The desired sample size was calculated from the accessible population using Nassiuma's (2000) formula as hereby illustrated.

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

n = Sample Size

N = Population Size
C = coefficient of variation (21% ≤ C ≤ 30%)
e = error margin (2% ≤ e ≤ 5%)
Substituting the equation:

$$n = \frac{187\,(0.25)^2}{0.25^2 + (187\text{-}1)0.025^2}$$

n   =   65.38
n   =   65 respondents

Thus the study sample constituted 65 employees working with insurance firms in Nakuru town. Stratified random sampling was employed to draw respondents from the accessible population.

Research Instrument
The study used a self-administered structured questionnaire to collect data from the sampled respondents. The questionnaire was structured in such a way that it was collect requisite data that addressed all study objectives. The questionnaires was first pilot tested in Molo Town, Kenya in order to ensure it was both valid and reliable for use in collecting data for the main study. The reliability threshold was alpha values equal to or greater than 0.7. Construct validity was tested using the Principal Axis Factoring (PAF) method. The construct validity threshold was Eigen values greater than 1.

Data Processing and Analysis
The analysis was in form of both descriptive and inferential statistics. Descriptive statistics comprised of means, modes, standard deviations, and variances. On the other hand, inferential statistics was in form of Pearson's correlation and multiple regression analysis. ANOVA F Statistics was used to test the significance of the relationship between Independent variable and Dependent variable at 95% level of significance. R^2 was used to assess the contribution of Independent on the Dependent variable.

IV. Findings And Discussions
Using correlation analysis, the study established the relationship between competition, cost of operation, profit margin goals, product value and price undercutting. The established relationship was further explained.

Influence of Competition on Price Undercutting
The relationship between competition and price undercutting among insurance firms in Nakuru County was determined. Table shows the results of correlation analysis.

Table 1: Correlation between Competition on Price Undercutting

		Price Undercutting
Competition	Pearson Correlation	.112[**]
	Sig. (2-tailed)	.021
	N	50

**. Correlation is significant at the 0.21 level (2-tailed).

According to the findings, there is a positive association between competition and price undercutting among insurance firms in Nakuru County as shown by a correlation coefficient of 0.112 and a p-value of 0.021. The p-value is less than 0.05 and hence the association was significant. Competition positively influenced price undercutting. The findings agreed with Epetimehin and Ekundayo (2012) who stated that competition as a factor that influences or a factor that could influence price undercutting in the insurance sector.

Influence of Cost of Operation on Price Undercutting
The study determined how cost of operation influenced price undercutting among insurance firms among insurance firms in Nakuru County. The relationship between the two study variables was ascertained. Table 2 displays the results.

Table 2: Influence of Cost of Operation on Price Undercutting

		Price undercutting
Cost of operation	Pearson Correlation	.462[**]
	Sig. (2-tailed)	.001
	N	50

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

The findings indicated that there is significant association between cost of operation and price undercutting among insurance firms in Nakuru County as shown by a correlation coefficient of 0.462 and a p-value of 0.001.

Influence of Profit Margin Goals and Price Undercutting
The study further evaluated how profit margin of insurance firm influenced price undercutting among insurance firms in Nakuru County. The outcome of the analysis is shown in Table 3.

Table 3: Influence of Profit Margin Goals and Price Undercutting

		Price Undercutting
Profit Margin	Pearson Correlation	.303[**]
	Sig. (2-tailed)	.007
	N	50

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

The study established that there is a positive significant association between profit margin and price undercutting among insurance firms in Nakuru County. This is shown by a correlation coefficient of 0.303 and a p-value of 0.007.

Influence of Product Value and Price Undercutting
In addition the study analyzed the relationship between product value and price undercutting among insurance firms in Nakuru Town. The relevant findings are illustrated in Table 4

Table 4: Influence of Product Value and Price Undercutting

		Price Undercutting
Product Value	Pearson Correlation	-.277[**]
	Sig. (2-tailed)	.017
	N	50

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

It was noted that there existed an inverse association between product value and price undercutting among insurance firms in Nakuru County as shown by a correlation coefficient of -0.277 and a p-value of 0.017, where the p-value was less than 0.05 and hence the association was significant. This is in agreement with Hinterhuber (2008) who stated that the essence of matching product value with the right price, that is value based pricing.

Regression Analysis for Overall Model
The study evaluated how the financial factors under study (competition, cost of operation, profit margin goals and product flow) influenced price undercutting among insurance firms in Nakuru County. Using multiple regression analysis and Analysis of Variance (ANOVA), the combined effect of competition, cost of operation, profit margin goals and product flow on price undercutting among insurance firms was established.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.7563	0.57199	0.52761	2.56741

The R-Squared is the proportion of variance in the dependent variable which can be explained by the independent variables. The R-squared in this study was 0.572, which shows that the four independent variables (competition, cost of operation, profit margin goals and product flow) can explain 57.2% of price undercutting among insurance firms while other factors explain 42.8%

Table 6: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.7930	4	5.9483	67.1956	0.000
	Residual	14.4290	163	0.0885		
	Total	38.2220	167			

The analysis of variance in this study was used to determine whether the model is a good fit for the data. From the findings, the p-value was 0.000 which is less than 0.05 and hence the model is good in predicting how the four independent variables (competition, cost of operation, profit margin goals and product flow) influence price undercutting among insurance firms. Further, the F-calculated (67.1956) was more than the

P(0.05) which shows that the model was fit in predicting the influence of the independent variables on the dependent variable.

Table 7: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.797	2.024		3.358	0.000
Competition	0.454	0.091	0.345	4.989	0.000
Cost Of Operation	-0.235	0.093	-0.212	-2.527	0.019
Profit Margin Goals	0.213	0.085	0.198	2.506	0.021
Product Value	0.385	0.120	0.235	3.208	0.000

Table 7 shows the overall significant test results for the hypothesized research model. The interpretations of the findings indicated follow the following regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Therefore,

$$Y = 6.767 + 0.454 X_1 + -0.235 X_2 + 0.213 X_3 + 0.385 X_4$$

From the findings, there is a positive significant relationship between competition and price undercutting among insurance firms in Nakuru County as shown by a regression coefficient of 0.454. The p-value (0.000) was less than the significance level (0.05), hence the relationship was significant. The results also indicate that there is an inverse significant relationship between cost of operation and price undercutting among insurance firms in Nakuru County as indicated by a regression coefficient of 0.235. The relationship was significant as the p-value (0.019) was less than the significance level (0.05).

The results also indicate that there is a positive relationship between profit margin goals and price undercutting in Nakuru County as shown by a regression coefficient of 0.235. The relationship was found to be significant as the p-value (0.021) was less than the significance level (0.05). Lastly, the results show that there is a positive significant relationship between product value and price undercutting in Nakuru County as shown by a regression coefficient of 0.385. This relationship was significant as the p-value (0.000) was less that of the significance level (0.05).

Out of the four factors investigated, competition and product value were the most important since to generate one unit of price undercutting, 0.454 units of competition and 0.385 units of product value must be increased. Therefore insurance firms ought to focus more on competition and product value.

V. Conclusions

From the findings the researcher concluded that there is price monitoring in the insurance industry. Insurance firms price their products at the same level as competitors. From the findings the researcher also concluded that competition at times forces some firm to lower product prices From the study it can also be concluded that competition at times forces insurance firms to lower the prices of their products. In relation to the second objective, it can be concluded that the cost of marketing insurance products is very high. Insurance firms also incur massive costs in terms of commissions to insurance agents. High labour costs in insurance sector leads to price undercutting. From the study it can also be concluded that insurance firms factor all these costs while pricing their products.

On the third objective, it can be concluded that insurance firms factor in customer satisfaction when setting profit objectives, Insurance firms also use mark-up pricing to achieve profit margin goals. Insurance firms focus on revenue maximization as one way of achieving its profit margin goals. Insurance firms have profit margins which influence pricing of goods. On the forth objectives it can be concluded that Insurance firms offer high quality insurance products and customers are always ready to pay for quality. They also have different product lines and the value of a product is considered while pricing but different products are valued differently.

VI. Recommendations

In the light of the foregoing findings, the study recommends that; Concerning the first objective, there is need for insurance firms to use competitive strategies like timely introduction of a product and service, depending on the season and the target customers. Since majority of insurance firms offer similar products, Insurance firms should diversify their products as this will help them to have an advantage over their competitors.

In relation to the second objective, Instead of increasing the number of agents insurance firms should train and develop their employees to improve their productivity, this will go a long way in reducing the cost of the huge number of agents. Insurance firms should adopt a marketing strategy that give more returns than the investment made.

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