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EFFECT OF OPTIMIZATION PRICING STRATEGY ON THE PROFITABILITY OF INSURANCE FIRMS IN KENYA.

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Abstract

Purpose: The objective of the study was to establish the effect Optimization Pricing Strategy on The Profitability of Insurance Firms in Kenya.

Methodology: The descriptive research design was preferred to other research designs because it reports the status of study variables. The population of study was the 45 insurance companies operating in Kenya as at 31st December 2012. Data was drawn from a period of five (5) years that is 2008-2012. The sample of this study was 10% of the sales workforce which comprised of 900 employees from the 45 insurance companies. The sample was generated by purposively sampling two employees from each insurance company.The researcher collected primary data with the help of a questionnaire. The primary data obtained from the questionnaires was summarized and analyzed by use of descriptive and inferential statistical techniques.

Results: Regression and correlation results indicated that there was a statistically significant and positive relationship between price optimization strategies, strategies and profitability.

Policy recommendation: The study recommends that insurance companies put in place measures assess the most effective pricing strategy to reduce product costs and thus increase profitability whenever such a strategy is used.

Keywords: *optimization pricing strategy*

1.1 Back ground of the Study

Insurance industry, the world over forms an integral part of the financial services sector and plays a pivotal role in the economic growth of an economy. A well developed insurance market paves way for efficient resource allocation through transfer of risk and mobilization of savings. Insurance industry is well developed in economies such as the US, Europe, Japan, and South Korea. Emerging markets are found throughout Asia, specifically in India and China, and are also in Latin America. In 2012, the global insurance market is forecast to have a value of $4,608.5 billion, an increase of 24.9% since 2007. Life insurance dominates the global insurance market, accounting for 59.7% of the market′s value (Andersen, 2008).

Insurance pricing, involves the calculation of each policy owner's fair share of losses and expenses. The price paid for insurance, called the premium, is the rate per unit or coverage multiplied by the number of unit purchased. Unit of insurance are measured differently according to the type of coverage. The rates are established before the exposure period to which they apply so that a forecast of the future must be made. The probable number and value of claims are forecast from historical loss experience with consideration given to trends and new developments. Insurers cannot set rates arbitrarily; rates are subject to state control (Andersen, 2008).

1.2 Statement of the Problem

Every firm is most concerned with its profitability. One of the most frequently used tools of financial ratio analysis is profitability ratios which are used to determine the company's bottom line. Profitability measures are important to company managers and owners alike. If a small business has outside investors who have put their own money into the company, the primary owner certainly has to show profitability to those equity investors. There has been a growing number of studies recently that test for measures and determinants of firm profitability. Financial industry's profitability has attracted scholarly attention in recent studies due to its importance in performance measurement (Kallhoefer& Salem, 2008)

According to a study conducted by Ahmed et al (2011) on the determinants of performance, it indicated that size, risk and leverage are important determinants of performance of life insurance companies of Pakistan. According to Wright (1992) due to the unique accounting system used by life insurance companies, profitability of the industry has always been difficult to measure as compared with other financial institutions or corporations. Kasturi (2006) argued that the performance of insurance company in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on investment and return on equity. However, none of these studies focused on the effects of Optimization Pricing Strategy on the productivity of insurance companies in insurance firms in Kenya. If not properly implemented, pricing strategies adopted by the insurance industry are prone to fail and the more the reason for the study.

1.3 Research Objectives

i. To find out the effect of optimization pricing strategy on the profitability of insurance firms in Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical Orientation

2.1.1 The Weber-Fechner Law

This law relates changes in a stimulus to the evolved response as follows:

AS/S = k, where S is lie stimulus, AS is the "just noticeable difference" (i.e. so that S + AS is perceived to be different from S), and k is constant for each sensory stimulus. Fechner analyzed subjective sensations using differential increments and derived the Weber-Fechner law (Monroe, 1971).

Several authors have applied the Weber-Fechner law in the investigation of price thresholds Adam (1970), Gabor and Granger,(1966) and Monroe, (1973). The empirica1 evidence reported in these papers supports the hypothesis of upper and lower price thresholds and thus a range of prices which is considered acceptable. The Weber-Fechner law provides a means of experimentally determining such thresholds. Prices below the lower threshold are considered too low (quality is suspect) and prices above the upper threshold are considered too high. This was empirically demonstrated by Adam (Monroe, 1973).

The theory is relevant in this study as it is used to explain how perception of prices by consumers affects them in purchasing insurance products. The more the consumers perceive those prices positively the more sales they make hence aiding in making the pricing decisions of the firms specially understanding the threshold of prices of such strategies.

2.2 Empirical Literature Review

2.2.1 Price Optimization Strategy and the Profitability of Insurance Firms

Stigler, (2004) observed that prices are decisive for what insurance users buy and how much they pay. Prices are also decisive for efficient provision of services at low cost and for the development of effective competition. Consequently, inappropriate prices send wrong signals to the market and may lead to inadequate use of services, prevent or distort competition, encourage inefficient entry of high-cost operators or force the exit of efficient competitors (Stigler, 2004).

Figure 1: Operational Framework

3.0 METHODOLOGY

The descriptive research design was preferred to other research designs because it reports the status of study variables. The population of study was the 45 insurance companies operating in

Kenya as at 31st December 2012. Data was drawn from a period of five (5) years that is 2008-2012. The sample of this study was 10% of the sales workforce which comprised of 900 employees from the 45 insurance companies. The sample was generated by purposively sampling two employees from each insurance company.The researcher collected primary data with the help of a questionnaire. The primary data obtained from the questionnaires was summarized and analyzed by use of descriptive and inferential statistical techniques.

4.0 RESULTS FINDINGS

4.1Quantitative Data Analysis

4.1.1 Price Optimization Strategy and Profitability of Insurance Companies in Kenya

The study sought to establish the effect of price optimization strategy on the profitability of insurance companies. The results were presented in Table 1 Fifty nine point three percent of the respondents agreed that the interest and use of price optimization strategy by insurance companies had been growing in the last decade. Above sixty five percent(65.6%) agree that the strategy adopted by their firm in optimizing price had led to increase in sales.Sixty seven point two percent agreed that there had been growth in both customer base and profits as a result of the optimal pricing strategy adopted by their firm. About sixty eight percent (68.8%) agreed that they used price increases and decreases to achieve price optimization of the everyday business. About sixty eight percent (68.7%) agreed that prices of similar products offered by other firms were not a threat to their firm. The overall likert mean was 3.68 with a standard deviation of 1.1318 and this implies that price optimization strategy greatly influences the profitability of insurance companies.

The findings agree with those in a study by Joskow, (2003) who examined the competitive market structure of the non-life insurance market place and concluded that the combination of state regulation price optimization strategy and other market peculiarities resulted in significant effect on profitability.

Table 1 Price Optimization Strategy and Profitability of Insurance Companies

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The interest and use of price optimization strategy by insurance companies has been growing in the last decade	17.20%	10.90%	12.50%	31.20%	28.10%	3.42	1.45
The strategy adopted by our firm in optimizing price has led to increase in sales	9.40%	14.10%	10.90%	29.70%	35.90%	3.69	1.34

There has been an growth in both customer base and profits as a result of the optimal pricing strategy adopted by our firm	9.40%	9.40%	14.10%	46.90%	20.30%	3.59	1.19
We use price increases and decreases to achieve price optimization of the everyday business	6.20%	10.90%	14.10%	29.70%	39.10%	3.84	1.24
Prices of similar products offered by other firms are not a threat to us	10.90%	7.80%	12.50%	23.40%	45.30%	3.84	1.37
Average						**3.68**	**1.32**

4.2 Pearson's Correlation Analysis

Bivariate correlation indicates the relationship between two variables. It ranges from 1 to -1 where 1 indicates a strong positive correlation and a -1 indicates a strong negative correlation and a zero indicates lack of relationship between the two variables. The closer the correlation tends to zero the weaker it becomes.The correlation between profitability and price optimization strategies was strong and positive (0.644).

Table 2 Pearson's Correlation Analysis

		ROA	Economy	Skimming	Penetration	Premium	Optimization
ROA	Pearson Correlation	1.000					
	Sig. (2-tailed)						
Optimization	Pearson Correlation	0.644	0.580	0.729	0.744	0.755	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	

4.3 Regression Analysis

Table 3 below shows the fitness of the regression model in explaining the variables under study. The results indicate that the variable; price optimization strategy was satisfactorily inexplaining profitability. This conclusion is supported by the R square of 0.651. This further means that the independent variables can explain 65.1% of the independent variable (profitability).

Table 3Model Fitness

Indicator	Coefficient
R	0.807
R Square	0.651
Adjusted R Square	0.620

Std. Error of the Estimate	0.0778

4.4. Analysis of Variance

ANOVA statistics presented on Table 4indicate that the overall model was statistically significant. This was supported by a probability (p) value of 0.000. The reported p value was less than the conventional probability of 0.05 significance levels thus its significance in the study. These results indicate that the independent variables are good predictors of performance in terms of profitability.

The findings led to rejection of null hypothesis that price optimization strategies did not significantly contributeto financial performance of insurance companies.

Table 4.Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	0.653	5	0.131	21.596	0.000
	Residual	0.351	58	0.006		
	Total	1.004	63			

Regression of coefficients results in Table 5 shows that there is a positive relationship between profitability and and price optimization strategy and whose beta coefficient is0.021.The results indicate that; an increase in; an increase in the price optimization strategies by one unit leads to an increase in profitability by 0.021 units.

Table 5: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	-0.551	0.075	-7.390	0.000
Economy	0.069	0.017	4.018	0.000
Optimization	0.021	0.0016	13.125	0.007

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Price Optimization Strategy and Profitability of Insurance Companies

The fifth objective was to establish the effect of price optimization strategies on the profitability of insurance firms in Kenya. The descriptive statistics indicated that majority of the respondents agreed that the interest and use of price optimization strategy by insurance companies had been growing in the last decade, the strategy adopted by their firm in optimizing price had led to increase in sales, there had been growth in both customer base and profits as a result of the optimal pricing strategy adopted by their firm, they used price increases and decreases to achieve price optimization of the everyday business and prices of similar products offered by other firms were not a threat to them. Regression and correlation results indicated that there was a statistically significant and positive relationship between price optimization strategies and profitability. These results implied that price optimization strategy has a positive effect on the profitability of insurance companies.

5.2 Recommendations for study findings

The study recommends that insurance companies put in place measures assess the most effective pricing strategy to reduce product costs and thus increase profitability whenever such a strategy is used. They should also adopt ways to implement their pricing strategies better compared to competitor firms. They should also ensure that the strategies they adopt help them discourage competition and focus more on both acceptance and profits. They should also use strategies that positively influence consumer's perception through fair pricing in setting their product prices so that customers will be satisfied when paying for such services.

5.3Recommendations for Further Research

This study was not exhaustive by any means and therefore it is suggested that another study be conducted in the insurance industry in probably using the same variables so as to establish whether the findings of this study will hold true for individual products since the risk rating is different from one product to another with special focus on Medical and Motor private classes which have been reported as loss making by many firms. An additional research can be done to find out exactly the reason for bad performance of these classes.

REFERENCES

Adam, D. (1970).Consumer Reactions to Price, in B. Taylor and G. Wills, eds., *Pricing Strategy*, (Brandon Systems Press, Princeton, New Jersey), 75-88.

Ahmed, N., Zulfqar, A. &Ahmad, U. (2011). Determinants of Performance: A Case of life Insurance Sector of Pakistan International Research Journal of Finance and Economics ISSN 1450-2887 Issue 61 (2011).

Akerlof, G. (1970).The Market for Lemons. Quarterly Journal of Economics 84 : 488-500.

Andersen,T. J. (2008h).The Performance Relationship of effective Risk Management: *Exploring the firm-specific investment Rationale*. Long Range Planning 4(12) 155-176

Bain, J.S. (2001).Relation of Profit Rate to Industry concentration: American manufacturing, 1936 – 1940, *Quarterly Journal of Economics*, 65: 293-324.

Bain, J.S.(1996).Barriers to New Competition, Their Character and Consequences in Manufacturing Industries (Cambridge, MA: Harvard University Press).

Bajtelsmit, V. L.&Bouzouita, R. (1998).Profit and Concentration in Commercial Automobile Insurance Lines .*Journal of Insurance Issues* 21(2) 175-182

Besanko, D. &Wayne, L. W. (2000).Optimal Price Skimming by a Monopolist Facing Rational Consumers.*Management Science* 36 (5):555-567.

Bhattacharya U. &Dittmar,A (2001).Costless Versus Costly Signaling: Theory and Evidence from Share *Repurchase working paper,* Kelley School of Business,University of Indiana, 2001.

Black, F.& Scholes, M. (1973). The Pricing of Options and Corporate Liabilities.*Journal of Political Economy 81,637-654.*

Breedon, D.T. (1979). An lntertemporal Asset Pricing Model with Stochastic Investment and Consumption Opportunities.*Journal of Financial Economics* 6, 273-296.

Matt, C.1., Richtel, M.& Andrew, R. S. (2004).At&T Wireless for Sale as a Shakeout Starts. *New York Times*, Jan 21,

Chandran, E. (2004).*Research Methods; A quantitative approach with Illustration.* From Christian Ministries: Nairobi Daystar University

Cooper, D.R. & Schindler, P.S. (2008).*Business Research Methods, 10th Edition*, New York, McGraw-Hill, 183.

Cox, J. D. and Rubinstein, M. (1985) .*Options Markets*. (Englewood Cliffs, N.J.: Prentice-Hall).

Cummins, J. D (1988a).Risk-Based Premiums for Insurance Guaranty Funds. *Journal of Finance* 43, 823-839.

Cummins, J. D. (1988b) Capital Structure and Fair Profits in Property-Liability Insurance, *working paper, University of Pennsylvania*

Ekundayo, O.A. (2012).The Impact of Risk Pricing on Profit Maximization of Insurance Companies, *International Journal of Academic Research in Economics and Management Sciences* Vol. 1, No. 4 ISSN: 2226-3624 21

Emory, F. (1970).Some Psychological Aspects of Price, in B. Taylor and G. Wilbro, eds., *Pricing Strategy,* (Brandon Systems Press, Princeton, New Jersey), 98-1 11.

Flanagan, R. and Norman, G. (2006).Pricing Policy, in Hillebrandt, P.M. and Cannon J. (eds), The Management of Construction Firms - *Aspect of Theory*, *Macmillan*, pp. 129-153

Fornell, C., Michael D. J., Eugene W. A., Jaesung, C. and Barbara E. B. (1999).The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing* 60 (4):7-18.

Gabor, A. and Granger,C. (1966).Price as an Indicator of Quality: *Report on an Inquiry, Economica 33, 43-70.*

Harris, M. and Raviv, A. (1985).A Sequential Signaling Model of Convertible Debt Call Policy." *the Journal of Finance* 40(5): 1263-1281.

Heinkel, R. A(1982).Theory of Capital Structure Relevance under Imperfect Information the *Journal of Finance* 37 (5) 1141-1150.

Helson, H. (1964).Adaptation-Level Theory, (Haver and Row, New York, NY).

Hifza, M. (2011).Determinants of Insurance Companies Profitability: An Analysis of Insurance Sector of Pakistan, *Academic Research International*, Volume 1, Issue 3

Irwin, D. A.& Peter, J. K. (2004). Learning-by- Doing Spillovers in the Semiconductor Industry.*Journal of Political Economy* 102:1200-1227.

Jarrow, R. (1988).Finance Theory (Englewood Cliffs, N J: Prentice-Hall).

Joskow, P. (2003). Cartels, Competition and Regulation in the Property-Liability Insurance Industry, *Bell Journal of Economic and Management Science*, 4(2), 375-427

Kahneinann, T. and Tversky,C. (1979).Prospect Theory: an *Analysis of Decision Under Risk, Econometrica* 47, 263-291.

Kallhoefer, R. and Salem, C. (2008).Profitability Analysis in the Egyptian Banking Sector.

Kasturi, R. (2006).Performance Management in Insurance Corporation .*Journal of Business Administration online* 5 (1)

Kennon, J. (2013). *Return on Assets (ROA) Investing Lesson 4 - Analyzing an Income Statement.* Retrieved from http: // beginnersinvest.about.com / od/ income statement analysis /a / return-on-assets-roa-income-statement.htm

Kerlinger, F. (1964).*Foundations of behavioural research*. New York: Holt.

Leland, H.E. and Pyle D.H. (1977) .Information Asymmetries, Financial Structure, andFinancial Intermediation.*The Journal of Finance* 32(2) : 371-387.

Markowitz, H. M. (1952).Portfolio Selection.*The Journal of Finance*.Vol 13(1)

Merton, R. C. (1973a).Theory of Rational Option Pricing.*Bell Journal of Economics and Management Science 4, 141-183.*

Merton, R. C. (1973b).An lntertemporal Capital Asset Pricing Model.Econometrica 41, 867-880.

Monroe, K. B. (1971).Measuring Price Thresholds by Psychophysics and Latitudes ofAcceptance, *Journa1 of Marketing Research* 8, November, 460-464

Mugenda, O. &Mugenda, A. (1992).*Research methods: Quantitative and qualitative approaches.* Nairobi: Act press, 42-48.

Mugenda, O. M. and Mugenda, A. G. (2003).*Research Methods: Quantitative and Qualitative Approaches*, Acts Press, Nairobi-Kenya

Nehaus, G. R. and Harringhton, S. G. (2003).Risk Management and Insurance. Singapore, McGraw Hill/ Irwin Pub.

Nguyen, K. M. (2006).Financial Management and Profitability of Small and Medium Enterprises. Southern Cross University Thesis Submitted to the Graduate College of Management in partial fulfillment of requirements for the degree of Doctor of business. *Administration. Paper Provided by the German University in Cairo Working Paper Series*.

Niedrich, R W., Subhash, S. and Douglas, H. W. (2001) .Reference Price and Price Perceptions: a Comparison of Alternative Models, *Journal of Consumer Research* 28,

Parkin, M. (2003).Microeconomics, Addison Wesley, Boston.

Pass, C., Lowers, B. and Davies, L. (2000).Economics, Harper Collins Publishers, London.

Poitevin, M. (1989).Financial Signaling and the Deep-Pocket Argument.*The Rand Journal of Economic*s 20(1) 26-40.

Putler, Daniel S., (1992).Incorporating Reference Price Effects into a Theory of Consumer Choice, *Marketing Science* 11, 3 , 287-309

Rebao, C. and Ann, W. (2004) .Determinants of Financial Health of Asian Insurance Companies, *the Journal of Risk and Insurance Volume* 71 Number 3.

Richtel, M. and Andrew R. S. (2004).At&T Wireless for Sale as a Shakeout Starts.*New York Times, Jan 21, 2004, C1*.

Robinson, B. and Chet, L. (2005).Dynamic Price Models for New-Product Planning.*Management Science* 21 (10):1113-1122.

Ross, S.A. (1977) .Determination of Financial Structure: the Incentive-Signaling Approach. *The Bell Journal of Economics* 8 (1977): 23-40.

Sekaran, U. &Bougie, R. (2010).Research Methods for Business :*A Skill Building Approach*. 5th Edition.Aggarwal printing press, Delhi, ISBN: 978-81-265-3131-8

Sherif, M. and Horland, C (1961) .Social Judgment, (Yale University Press. New Haven,NY \)

Skitmore, R. A. (2007).Risk, Return, and Arbitrage, in I. Friend and J. Bicksler, eds., *Risk and Return in Finance*,v.I. (Cambridge, MA: Ballinger Publishing Co.)

Spence, M. (1973).Job Market Signaling.The Quarterly Journal of Economics 87(3) \355-374.

Stigler, G. L. (2004).A Theory of Oligopoly, *Journal of Political Economy*, 17(1): 69-8

Szymanski, D. M. and David H. H. (2001).Customer Satisfaction: A Meta-Analysis of the Empirical Evidence.*Journal of the Academy of Marketing Science* 29 (1):16-35.

Talmor, E. (1981).Asymmetric Information, Signaling, and Optimal Corporate FinancialDecisions" *Journal of Financial and Quantitative Analysis* 16(4) 413-435

Varki, S. and Mark, C. (2001).The Role of Price Perceptions in an Integrated Model of Behavioral Intentions.*Journal of Service Research* 3 (3):232-240.

Voss, G. B., Parasuraman, A. &Dhruv G. (1998).The Roles of Price, Performance, and Expectations in Determining Satisfaction in Service Exchanges. *Journal of Marketing 62 (4):46-61*.

Winer, Russell S. (1988).Behavioral Perspectives on Pricing: Buyers' Subjective Perceptions of Price Revisited, in Devinney, T. M., ed., *Issues in Pricing: Theory and Research*, (Lexington Books, Lexington, MA), Chapter