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INDIA'S PRESENT INSURANCE PENETRATION AND FUTURE POSSIBILITIES

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Short Profile

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ABSTRACT:

India accounts for over a pair of of the world's premiums and 6 June 1944 of the premiums originating in Asia. The country is that the tenth biggest insurance market within the world and has the potent ial to grow exponentially within the returning years.While regulative hurdles and dominant incumbents bring challenges to foreign firms looking to enter the Indian insurance market, low penetration and opportunities within the market make it quite remunerative. In 2011, the life premium volume for Republic of India was $60 billion, some what over third of the GDP. The GDP is anticipated to grow atan average rate of four.7% through 2018, and that we expect life assurance penetration to extend to around 4.6% by 2019. this is able to build Republic of India a $120 billion market.

KEYWORDS

Insurance Penetration and Future Possibilities , Literature Review.

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INTRODUCTION :

LITERATURE REVIEW

•The measurement time period can affect the penetration rate, author David J. Reibstein and his colleagues wrote in a May 2006 Financial Times Press excerpt from their book, "Marketing Metrics: 50+ Metrics Every Executive Should Master." For example, computer sales may spike during the weeks preceding the start of the September school year, which may lead to a higher penetration rate than normal for that period only.

•The market share of a brand is a factor of the brand penetration share, the heavy usage index and the share of requirements, according to Reibstein. The heavy usage index measures consumption intensity, while the share of requirements measures brand loyalty.

•The least risky strategy to increase market penetration is to sell more units of the current product, entrepreneur and former chief executive officer Keith McFarland told Darren Dahl of "Inc." in a February 2010 article. Companies may use different pricing and promotional strategies to achieve unit volume growth. Examples include six bars of soap in one package or a six-pack of beer.

A Brief History of the Market

Market Penetration is a measure of brand or category popularity. It is defined as the number of people who buy a specific brand or a category of goods at least once in a given period, divided by the size of the relevant market population.

Insurance Penetration and Insurance density are the two basic Parameter often used to determine the level of development of the insurance sector in a country.

According to The economic Times

"Penetration rate indicates the level of development of insurance sector in a country. Penetration rate is measured as the ratio of premium underwritten in a particular year to the GDP".

METHODOLOGY

As per the objectives and nature of the study only secondary data is required thus the information is collected from Annual Report of IRDA and Various Reports Published by Ministry of India and also from other reliable publications.

An econometric model is used to conclude and forecast the future possibilities of insurance penetration in India.

Description: Within insurance, there is life insurance penetration which considers premiums from life insurance policies only as a percentage of GDP and nonlife insurance penetration which considers premium from other than life insurance policies like auto insurance, health insurance, etc.

GDP

Annual percentage growth rate of GDP at market prices based on constant local currency, aggregates are based on constant 2005 US dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

Interest Rate

To achieve the goal of study we take two components which affect the insurance penetration in most i.e. GDP and Interest Rate. Last 13 years data of GDP and Interest Rate is given in Table1.

TABLE 1 last 13 year data of GDP and Interest Rate

Year	Insurance Penetration (Y)	GDPGrowth (X_1)	Interest Rate (X_3)
2000	1.39	3.8	9.8
2001	1.77	4.8	6.9
2002	2.15	3.8	5.92
2003	2.59	7.9	4.82
2004	2.26	9.3	4.79
2005	2.53	9.3	6.75
2006	2.53	9.8	7.00
2007	4.10	3.9	6.93
2008	4.00	8.5	4.44
2009	4.00	10.5	5.20
2010	4.60	6.3	7.52
2011	4.40	3.2	8.12
2012	3.40	5	7.55

Where: -

Y = Insurance penetration – Dependent variable
X1 = Gross domestic product – Independent variable
X2 = Interest Rate on small savings – Independent variable
Model = Econometrics multiple regression model $Y = ß_1 + ,_2X_1 + ,_3X_2 + ut$

where:

$$\hat{\beta}_2 = \frac{(\Sigma x_1 y)(\Sigma x_2^2) - (\Sigma x_2 y)(\Sigma x_1 x_2)}{(\Sigma x_1^2)(\Sigma x_2^2) - (\Sigma x_1 x_2)^2)}$$

$$\hat{\beta}_3 = \frac{(\Sigma x_2 y)(\Sigma x_1^2) - (\Sigma x_1 y)(\Sigma x_1 x_2)}{(\Sigma x_1^2)(\Sigma x_2^2) - (\Sigma x_1 x_2)^2)}$$

$$\bar{X}_1 = \frac{\Sigma X_1}{N} = \frac{86.1}{13} = 6.62$$

$$\bar{X}_2 = \frac{\Sigma X_2}{N} = \frac{85.74}{13} = 6.60$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{40.32}{13} = 3.10$$

Table 2 Calculation Table

Year	Insu. Y	GDP X_1	Interest X_2	$(X_1 - \bar{X}_1)$, 1	x_1^2	$X_2 - \bar{X}_2$, 2	x_2^2	$(Y - \bar{Y})$ y	, 1 , 2	, 1 y	, 2 y
2000	1.39	3.8	9.8	-2.82	7.9524	3.2	10.24	-1.71	-9.024	4.8222	-5.472
2001	1.77	4.8	6.9	-1.82	3.3124	0.3	0.09	-1.33	-2.4206	2.4206	-0.399
2002	2.15	3.8	5.92	-2.82	7.9524	0.63	0.4624	-0.95	-1.9176	2.679	-0.646
2003	2.59	7.9	4.82	1.28	1.6384	-1.78	3.1684	-0.51	-2.2784	-0.6528	+0.9078
2004	2.26	9.3	4.79	2.68	7.1824	-1.81	3.2761	-0.84	-4.8508	-2.2512	+1.5204
2005	2.53	9.3	6.75	2.68	7.1824	0.15	0.0225	-0.57	+0.402	-1.5276	-0.0855
2006	2.53	9.8	7.00	3.18	10.1124	0.40	0.16	-0.57	+1.272	-1.8126	-0.228
2007	4.10	3.9	6.93	-2.72	7.3984	0.33	0.1089	1.00	-0.8976	-2.72	+0.33
2008	4.00	8.5	4.44	1.88	3.5344	-2.16	4.6656	0.90	-4.0608	1.692	-1.944
2009	4.00	10.5	5.20	3.88	15.0544	-1.4	1.96	0.90	-5.432	3.492	-1.26
2010	4.60	6.3	7.52	-0.32	0.1024	0.92	0.8464	105	-0.2944	-0.48	+1.38
2011	4.40	3.2	8.12	-3.42	11.6964	1.52	2.3104	1.3	-5.1984	-4.446	+1.976
2012	4.00	5.0	7.55	-1.62	2.6244	0.95	0.9025	0.9	-1.539	-1.458	+0.855
					85.7432	1.30	28.2081		36.2396	-0.2424	-3.0653

$$\hat{\beta}_2 = \frac{(\Sigma x_1 y)(\Sigma x_2^2) - (\Sigma x_2 y)(\Sigma x_1 x_2)}{(\Sigma x_1^2)(\Sigma x_2^2) - (\Sigma x_1 x_2)^2)}$$

$$\hat{\beta}_2 = \frac{(-0.2424)(85.7432) - (-3.0653)(36.2396)}{(85.7432 \text{ X } 28.2081) - (36.2396)^2}$$

$$\hat{\beta}_2 = \frac{-20.78415 + 111.0852}{2418.6527 - 1313.3086}$$

$$\hat{\beta}_2 = \frac{90.30105}{1105.3441}$$

$$\hat{\beta}_2 = 0.0817$$

$$\hat{\beta}_3 = \frac{(\Sigma x_2 y)(\Sigma x_1^2) - (\Sigma x_1 y)(\Sigma x_1 x_2)}{(\Sigma x_1^2)(\Sigma x_2^2) - (\Sigma x_1 x_2)^2)}$$

$$\hat{\beta}_3 = \frac{(-3.0653 \text{ X } 85.7432) - (-0.2424)(-3.0653)}{1105.3441}$$

$$\hat{\beta}_3 = \frac{-262.8286 - 0.7430}{1105.3441}$$

$$\hat{\beta}_3 = \frac{-263.5716}{1105.3441}$$

$$\hat{\beta}_3 = -0.24$$

$$\hat{\beta}_1 = Y - \hat{\beta}_2 X_1 - \hat{\beta}_3 X_2$$

$$\hat{\beta}_1 = 3.10 - 0.817\,(6.62) - (0.24\,(6.60)$$

$$\beta_1 = 3.10 - .5408 + 1.5888$$

$$\hat{\beta}_1 = 4.148$$

NOW $Y = 0.4488 + 0.1655x_1 + 0.2357\ x_2$

Table 3 Forecasting of Insurance Penetration

	GDP	Interest Rate	Forecasting of Insurance penetration
Case I	10%	9.00	.4488 + (.1655 x 10) + (.2357 x 9) = 4.2251
Case II	9%	9.00	.4488 + (.1655 x 9) + (.2357 x9) = 4.0596
Case III	6%	6.00	.4488 + (.1655 x 6) + (.2357 x6) = 2.8560
Case IV	10%	8%	.4488 + (.1655 x 10) + (.2357 x 8)= 3.9894
Case V	8%	10%	.4488 + (.1655 x 8) +(.2357 x 10) = 4.1298

CONCLUSIONS:-

our parameter shows that in case of Indian insurance penetration GDP affect around 16.55% and interest rate affect around 23.57% so in the future Indian G.D.P. predication we may assume and predict the insurance penetration possibilities in India. In final we can say that, if govt. Increase their GDP as well as interest Rate on small savings simultaneously it will definitely increase the Indian insurance penetration. Because only GDP will not sufficient factor to increase the insurance penetration in India. As shown by the figure if GDP is 10% and Interest rate is 8% then Insurance penetration would be 3.9894 where if GDP is 8% and Interest rate is 10% then insurance penetration would be 4.1298. Which show that, interest Rate are more contributories to increase the India's insurance penetration.

REFERENCES:-

1.Annual Reports of IRDA
2.Journals of IRDA
3.Press Releases
4.Report of Ministry of FinancePress Information Bureau, and Government of India Dated 15 May 2012
5.Insurance Act 1938
6.Internet Linkhttp://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?page=1