

International Multidisciplinary Research Journal

Golden Research Thoughts

Chief Editor
Dr.Tukaram Narayan Shinde

Publisher
Mrs.Laxmi Ashok Yakkaldevi

Associate Editor
Dr.Rajani Dalvi

Honorary
Mr.Ashok Yakkaldevi

Welcome to GRT

RNI MAHMUL/2011/38595

ISSN No.2231-5063

Golden Research Thoughts Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

International Advisory Board

Flávio de São Pedro Filho Federal University of Rondonia, Brazil	Mohammad Hailat Dept. of Mathematical Sciences, University of South Carolina Aiken	Hasan Baktir English Language and Literature Department, Kayseri
Kamani Perera Regional Center For Strategic Studies, Sri Lanka	Abdullah Sabbagh Engineering Studies, Sydney	Ghayoor Abbas Chotana Dept of Chemistry, Lahore University of Management Sciences[PK]
Janaki Sinnasamy Librarian, University of Malaya	Ecaterina Patrascu Spiru Haret University, Bucharest	Anna Maria Constantinovici AL. I. Cuza University, Romania
Romona Mihaila Spiru Haret University, Romania	Loredana Bosca Spiru Haret University, Romania	Ilie Pinteau, Spiru Haret University, Romania
Delia Serbescu Spiru Haret University, Bucharest, Romania	Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Xiaohua Yang PhD, USA
Anurag Misra DBS College, Kanpur	George - Calin SERITAN Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, IasiMore
Titus PopPhD, Partium Christian University, Oradea, Romania		

Editorial Board

Pratap Vyamktrao Naikwade ASP College Devrukh, Ratnagiri, MS India	Iresh Swami Ex - VC. Solapur University, Solapur	Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur
R. R. Patil Head Geology Department Solapur University, Solapur	N.S. Dhaygude Ex. Prin. Dayanand College, Solapur	R. R. Yaliker Director Management Institute, Solapur
Rama Bhosale Prin. and Jt. Director Higher Education, Panvel	Narendra Kadu Jt. Director Higher Education, Pune	Umesh Rajderkar Head Humanities & Social Science YCMOU, Nashik
Salve R. N. Department of Sociology, Shivaji University, Kolhapur	K. M. Bhandarkar Praful Patel College of Education, Gondia	S. R. Pandya Head Education Dept. Mumbai University, Mumbai
Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai	Sonal Singh Vikram University, Ujjain	Alka Darshan Shrivastava Shaskiya Snatkottar Mahavidyalaya, Dhar
Chakane Sanjay Dnyaneshwar Arts, Science & Commerce College, Indapur, Pune	G. P. Patankar S. D. M. Degree College, Honavar, Karnataka	Rahul Shriram Sudke Devi Ahilya Vishwavidyalaya, Indore
Awadhesh Kumar Shirotriya Secretary, Play India Play, Meerut (U.P.)	Maj. S. Bakhtiar Choudhary Director, Hyderabad AP India.	S.KANNAN Annamalai University, TN
	S. Parvathi Devi Ph.D.-University of Allahabad	Satish Kumar Kalhotra Maulana Azad National Urdu University
	Sonal Singh, Vikram University, Ujjain	

Address:- Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.aygrt.isrj.org

**INDIA'S PRESENT INSURANCE PENETRATION AND
FUTURE POSSIBILITIES**



Prakash Garg

Professor Shri Atal Bihari Vajpayi Govt. Arts and Commerce college Indore .

Short Profile

Prakash Garg is a Professor at Shri Atal Bihari Vajpayi Govt. Arts and Commerce college Indore.

Co-Author Details :

Amar Vatnani² and Ashish Ojha³

²Professor Shri Atal Bihari Vajpayi Govt. Arts and Commerce college Indore.

³Faculty in Govt. New Science college Indore , Assistant Professor Kothari College Indore.



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 potential 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 at an 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.

Article Indexed in :

DOAJ
BASE

Google Scholar
EBSCO

DRJI
Open J-Gate

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.

Article Indexed in :

DOAJ	Google Scholar	DRJI
BASE	EBSCO	Open J-Gate

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 $Y = \beta_1 + \beta_2 X_1 + \beta_3 X_2 + ut$

where:

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

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

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

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

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

Table 2 Calculation Table

Year	Insu. Y	GDP X ₁	Interest X ₂	(X ₁ -X ₁) x ₁	x ₁ ²	(X ₂ -X ₂) x ₂	x ₂ ²	(Y -Y) y	x ₁ x ₂	x ₁ y	x 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

Article Indexed in :

DOAJ
BASE

Google Scholar
EBSCO

DRJI
Open J-Gate

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

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

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

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

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

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

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

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

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

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

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

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

$$\hat{\beta}_1 = 3.10 - .5408 + 1.5888$$

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

$$\text{NOW } Y = 0.4488 + 0.1655x + 0.2357 x$$

Table 3 Forecasting of Insurance Penetration

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

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 Finance Press Information Bureau, and Government of India Dated 15 May 2012
5. Insurance Act 1938
6. Internet Link <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?page=1>

Article Indexed in :

DOAJ Google Scholar DRJI
 BASE EBSCO Open J-Gate

Publish Research Article

International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- ★ International Scientific Journal Consortium
- ★ OPEN J-GATE

Associated and Indexed, USA

- EBSCO
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database
- Directory Of Research Journal Indexing

Golden Research Thoughts
258/34 Raviwar Peth Solapur-413005, Maharashtra
Contact-9595359435
E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com
Website : www.aygrt.isrj.org