

---

**POLICYHOLDERS PERCEPTION TOWARDS LIFE INSURANCE REGULATIONS: A FACTOR ANALYSIS**

**Amulyamala. D, Research Scholar,  
Jawaharlal Nehru Technological University, Hyderabad**

**Prof. B S R Rao, Director (Retd),  
International Institute for Insurance and Finance, Hyderabad.**

**ABSTRACT**

*This research paper focuses on the perception of policyholders towards life insurance regulations and awareness about Insurance Regulatory and Development Authority of India. Primary data are collected through administering a structured questionnaire to life insurance policyholders in Hyderabad and Secunderabad cities, using simple random sampling technique. The methodology adopted for the purposes is factor analysis. The results showed that, 88.93 per cent of Policyholders in this sample are aware of Insurance Regulatory and Development Authority of India. In factor analysis, fifteen variables are reduced to two factors with high correlation values of variables in varimax factor loading method. Overall majority of policyholders believed that regulations are designed to protect policyholders from financial loss and showed high rate of financial literacy in this sample.*

Key Words: Factor Analysis, Insurance Regulations, Life Insurance, Policyholder Awareness.

**INTRODUCTION**

Developed insurance market is the index of economic growth of the country. UNCTAD (1964) emphasizes that a sound national insurance and re-insurance market is an essential characteristic of economic growth. Insurance penetration enhances GDP growth, and fosters welfare activities of the nations; generates employment opportunities, mobilize long-term savings, manage risk, and also a tool for eradicating poverty. The overall efficiency of the financial system is enhanced by a well-developed insurance sector; this is done by creating liquidity, reducing transaction costs, and facilitating economies of scale in investment. Hence, the insurance sector must operate on a financially sound basis. "The potential use of public resource and power to improve the economic groups are analysed to provide a scheme of the demand for regulation (George. J. Stigler 1971). Regulation is the codification of public policy towards financial institutions to achieve a defined objective and/or act prudently. According to Adams, M.B and G.D Tower (1994), economic theory of regulation assumes that regulation is supplied to the market by the state in response to a demand which is often instigated by considerations, such as protection against competition or some response to crisis. Therefore the creation, modification and demise of regulation can be analysed from the point of market behavior. Regulation has two major components: 1.the rules or agreed behaviors; and 2. monitoring and scrutiny to determine safety, soundness, and ensure compliance. The main objective of insurance regulator is protection of policyholders from financial loss and collusive practices of the market.

Reforms in insurance sector in India have the rationale for promoting country's economic growth. In this connection, as a part of New Economic Policy 1991, Indian parliament enacted the Insurance Regulatory and Development Authority of India (IRDAI) in the year 1999 and opened insurance industry to private and foreign players with a cap of 26 percent foreign equity (now it is 49 percent). The objective of IRDAI is "to protect the interests of the policyholder, to regulate, to promote and to ensure orderly growth of the insurance industry and matters connected therewith or incidental to". Development of the insurance market is the main objective of IRDAI, unlike other countries' regulatory objective- protect and maintain solidity of the firms. This could be achieved through spreading insurance literacy across the country. An informed customer will be aware of various products, services, and benefits offered by the

firms. To achieve this goal, regulator adopted multi-staged approach and encouraging various stakeholders for serious participation in insurance literacy programs.

In this back drop, this research paper focuses on understanding the policyholder's perception of life insurance regulations, and awareness about Insurance Regulatory and Development Authority of India (IRDAI). Primary data are collected through administering a structured questionnaire to life insurance policyholders in Hyderabad and Secunderabad cities, using a simple random sampling technique. The data are analysed by employing factor analysis method, mainly principle component analysis (PCA). Based on the results obtained, we offer suggestions. This research contributes to literature, in addition to understanding the perception of life insurance policyholders towards IRDAI and its regulations.

The paper is organized as follows: The next section reviews relevant literature on life insurance and regulations, third section deals with the data and methodology. Section four, data analysis part, and fifth section concludes the paper.

### PRIOR RESEARCH

An extensive body of research exists that focuses on life insurance in India and insurance regulations. We briefly review relevant literature on insurance regulations in chronological order. They are as follows... Adam, M.D and G.D Tower (1994), evaluated the regulation of insurance markets by utilizing three strands of regulation theory- public interest theory, capture theory and the economic theory of regulation. They opined that the economic theory of regulation offers the best framework for interpretative analysis and empirical research.

Ranade, A and Rajeev Ahuja (2000), discussed the journey of insurance liberalization in India and the need for regulation in the insurance industry, explained, the objectives and functions of Insurance Regulatory and Development Authority of India (IRDAI). They concluded that insurance regulations in India are a challenge and a necessity for the healthy growth of the industry.

Skipper.H.D and Robert .W Klein (2000), opined that the more developed and efficient a country's insurance market, the greater will be its contribution to economic prosperity. Regulations are needed to protect public interest and also regulations should be adequate, impartial and minimally intrusive and transparent in nature. The authors inferred that competitive insurance markets serve country's interest.

Sinha.T,(2005), analysed about the evolving trends in Indian insurance industry including regulatory regime. He emphasized the importance of rural insurance penetration and innovative products which suit rural people. He also described the benefits of government liberalized policies with reference to the opening of the insurance industry.

Rossum.A.V, (2005), observed the changes in insurance regulations; for example the trend towards fair value accounting, increasing complexity of insurance trade and emergence of integrated financial conglomerates. The author concerns about the danger of an excessive level of regulation and complexity in regulation.

Liedtke, P.M (2007), analysed about the importance of insurance business to a modern economy. He argued that, insurance is a key component of economic development and helps in making the development of modern economy by contributing its major share to gross domestic product (GDP), risk management and risk transfer mechanisms.

### DATA AND METHODOLOGY

The primary data are collected through administering a structured questionnaire to 300 life insurance policyholders in Hyderabad and Secunderabad cities, by using a simple random sampling technique.

Chronbach's Alpha is used to test the reliability of data. Simple statistics are used to analyse socio economic factors such as percentages etc. Factor Analysis method is employed to reduce a small number of important factors which explain most of the variance of the data.

**EMPIRICAL RESULTS AND DATA ANALYSIS**

For any type of data collection checking the reliability of questionnaire is essential. Cronbach Alpha is a measure of reliability based on the internal consistency of constructs used. In general, the value of Cronbach’s Alpha equal to or greater than 0.7 is acceptable reliability coefficient. The value of Cronbach’s Alpha obtained from the data is 0.941, which is fairly high value; hence data could be processed further.

**Table- 1: Reliability Statistics**

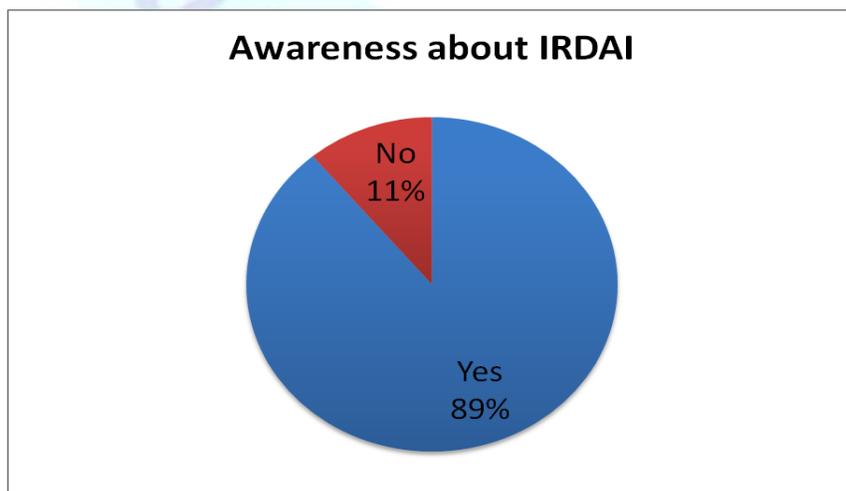
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.941	.916	29

Source: Authors’ calculations using SPSS from the Primary Data

**Analysis of Socio-economic Factors**

The survey of insurance policyholders numbering 300 is distributed in Hyderabad and Secunderabad twin cities. Based on the information provided by the respondents the data are analyzed. Out of 300 policyholders, 262 policyholders were participated in this survey, 88.9 per cent respondents are aware of Insurance Regulatory and Development of India (IRDAI) (graph-1). It is a good sign with respect to financial literacy of policyholders in general, in this survey in particular. Socio economic factors are key elements for understanding the perception of policyholders towards life insurance regulations thereby making better financial decisions for their surplus spending units. Hence it is worth to understand socio economic profiles of policyholder’s.

Graph-1: Represents Respondents Awareness about IRDAI

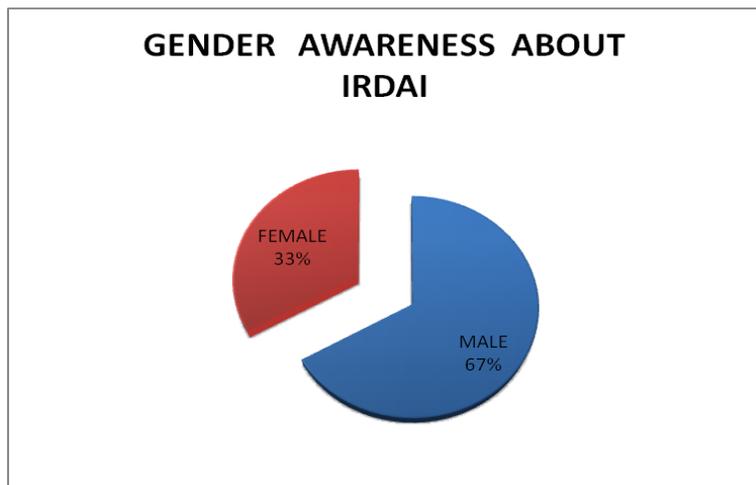


Source: Authors’ calculations using MS Excel from the Primary Data

**Gender –wise break up**

In both Hyderabad and Secunderabad cities, the level of education and employment in women is in good count. Hence it is worth to study understanding of women towards life insurance regulations. The sample had good representation of women with 33.2 per cent and male representatives with 66.8 per cent (graph-2).

Graph- 2: Represents respondents Gender Wise- break up

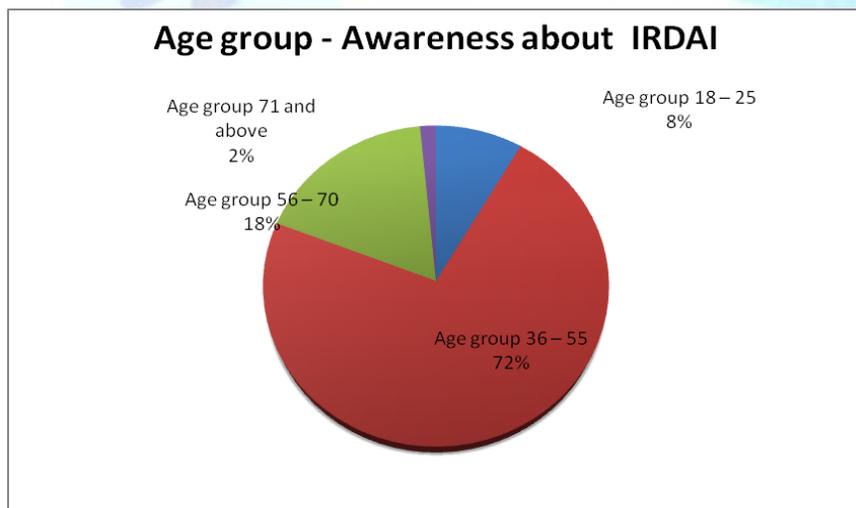


Source: Authors’ calculations using MS Excel from the Primary Data

**Age Group**

Age group of respondents is an important factor in the research survey. It indicates the place of respondents in a family life cycle. The age group between 36- 55 is a dominant group with 72.52 percent, which is the most productive group in human life cycle, followed by 56-70 category with 17.57, young participants represent 8.40 percent and finally the above 70 group representation consisted of 1.53 per cent (graph-3).

Graph-3: Represents Age wise awareness levels about IRDAI



Source: Authors’ calculations using MS Excel from the Primary Data

### Education

Education is one of the most important socio economic factors which influences in every walk of life. The sample contains a mix of every category ranging from high school studies to doctorates, of which graduates contributes a major share with 45.42 percent, next comes, post-graduates with 30.35 per cent. High school respondents represents 11.45 percent, 9.54 percent of professionals and 3.05 percent doctorates have participated in this survey

### Occupation

Private sector employees are dominant respondents in this survey with 54.20 percent, followed by government sector employees, self employees are with 11.45. Remaining are less than ten per cent.

### Factor Analysis

Factor analysis is one of the data reduction techniques, which identifies smaller number of factors that explain most of the variance observed from the larger data set of the constructs used in the questionnaire. The factor should have the Eigen value of one or greater than one for factor relationship to be considered worth analysis.

The Kaiser-Meyer-Olkin measure of sample adequacy (KMO) is a statistic that indicates proportion of variance in the variables. The value of KMO should be in between zero and one. The value greater than 0.5 should be considered as acceptable sample in a research. In this case KMO value obtained was 0.966 which means the sample is adequate. The Bartlett's test of sphericity tests the stated hypothesis correlation matrix is an identity matrix, which implies that the variables are unrelated and therefore unsuitable for structure decision. The value less than 0.05 indicate that factor analysis may be useful with this data. Here Bartlett's tests of Sphericity produced  $X^2$  (chi square) value 4880.328, degrees of freedom 105, with a significant 'p' value 1, e 0.000. These results indicate the adequacy of sample population and thereby suitability of data further for analysis (factor analysis). The results are as follows....

**Table-2 : KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.966
Bartlett's Test of Sphericity	Approx. Chi-Square	4880.328
	Df	105
	Sig.	.000

Source: Authors' calculations using SPSS from the Primary Data

The following table explains the total variance of the factors extracted from the questionnaire. It is found that fifteen variables are reduced to two factors which attributed 81.938 percent of the total variance explained by two factors.

**Table-3: Total Variance Explained**

Component	Total	Initial Eigen values		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.083	73.888	73.888	11.083	73.888	73.888
2	1.207	8.050	81.938	1.207	8.050	81.938
3	.422	2.811	84.749	.422	2.811	84.749
4	.329	2.194	86.942	.329	2.194	86.942
5	.286	1.906	88.848	.286	1.906	88.848
6	.255	1.700	90.548			
7	.236	1.573	92.121			
8	.220	1.465	93.586			
9	.197	1.310	94.897			
10	.172	1.145	96.042			
11	.152	1.016	97.057			
12	.139	.928	97.985			
13	.117	.777	98.762			
14	.106	.709	99.471			
15	.079	.529	100.00			

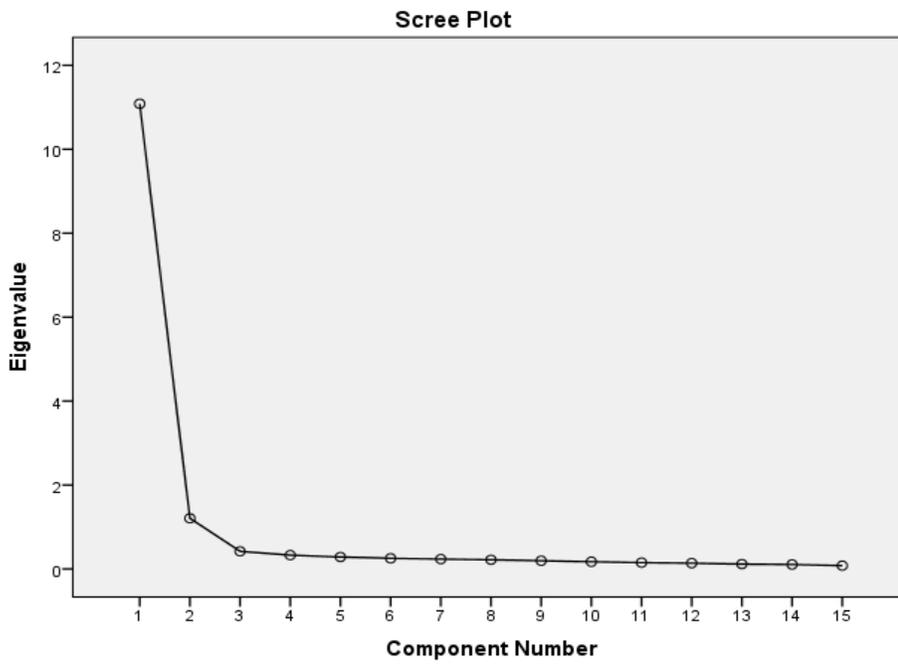
Extraction Method: Principal Component Analysis

Source: Authors' calculations using SPSS from the Primary Data

The scree plot graphs the eigen values against the factor number. The line steadily becomes flat after the factor one i.e the graph identified two factors with greater than one eigen value out of fifteen factors taken. Thus, these two factors are considered for factor loadings (graph-4)

Graph-4 Scree Plot





Source: Authors' calculations using SPSS from the Primary Data

**Table-4: Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
Awareness of IRDAI Role	<b>.934</b>	-.008	.017	-.141	.160
IRDAI controls anomalies in industry	<b>.929</b>	-.028	-.089	-.162	.105
Awareness of product	<b>.918</b>	.025	-.227	-.079	.053
IRDAI protects policyholder from collusive practices	<b>.917</b>	-.017	.060	.134	.019
IRDAI issues regulations for Investment of funds	<b>.913</b>	.041	.127	.198	.012
IRDAI Supervises insurance industry	<b>.908</b>	-.030	-.077	-.215	.095
IRDAI helps in increase in Penetration	<b>.905</b>	.000	-.158	-.012	.002
IRDAI Not advice policyholder	<b>.902</b>	-.002	-.190	-.066	-.095
Aware of Solvency regulation	<b>.885</b>	-.014	-.117	.241	-.079
Solvent at any time	<b>.882</b>	.043	.190	.135	0.00
Aware of Role in Development	<b>.874</b>	-.002	-.191	.192	-.095
Aware of Disclosures and monitoring of regulator	<b>.857</b>	.004	.352	-.050	.166
IRDAI does not interfere in Bonus declarations	<b>.845</b>	.066	.208	-.223	-.425
IRDAI Not develop insurance industry	.435	<b>.856</b>	.070	.036	.059
IRDAI develops insurance industry	<b>.641</b>	-.681	.130	.050	.028

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Source: Authors' calculations using SPSS from the Primary Data

The varimax factor loading method in principle component analysis gave two factors with high Eigen values I,e more than six for each factor; it can be interpreted that variables are highly correlated. The factor one consists of fourteen variables with considerable Cronbach's alpha value (for individual variable I,e greater than seven). The factor two contains one variable, with Cronbach alpha value greater than nine. These two factors are named as follows...

Factor one: Financial Protection

Factor two: Under Development

#### CONCLUDING OBSERVATIONS

88.93 per cent of Policyholders in this sample are aware of IRDAI and Life Insurance Regulations. This may be because of educational and employment status of respondents, in addition to geographical advantage (Hyderabad and Secunderabad). In factor analysis, fifteen variables are reduced to two factors with high correlation values of variables in varimax factor loading method. They opined regulations are designed to protect policyholders from financial loss and also inferred that even after the advent of IRDAI the insurance industry has been experiencing low penetration levels. Over all the perception of policyholders towards regulations and awareness about IRDAI are considerable and the respondents showed high rate of financial literacy in this sample.

#### REFERENCE

Skipper H.D. Jr and Robert W. Klein (2000), Insurance Regulation in the Public Interest: The Path towards Solvent, Competitive Markets, The Geneva Papers on Risk and Insurance. Issues and Practice, Volume 25, No.4, pp 482- 505.

Adams,M.B and G.D Tower (1994), Theories of Regulations: Some Reflections on the Statutory Supervision of Insurance Companies in Anglo – American Countries, The Geneva Papers on Risk and Insurance. Issues and Practice, Volume. 19, No.71, PP 156-177.

Liedtke,M.P, (2007), What's Insurance to Modern Economy?, The Geneva Papers on Risk and Insurance. Issues and Practice, Volume. 32, No.2, PP 211-221.

Skipper, H.D, Jr and Robert W.KLEIN,(2000), Insurance Regulation in the Public Interest: The Path Towards Solvent, Competitive Markets, The Geneva Papers on Risk and Insurance. Issues and Practice, Volume. 25, No.4, PP 482-504

Ranade and Rajeev Ahuja , (2000), Issues in Insurance Regulation, Economic and Political Weekly, Vol.35, No.5, PP 331-333+ 335-338.

Rossam, A.V., (2005), ' Regulations and Insurance Economics', The Geneva Papers on Risk and Insurance. Issues and Practice, Volume. 30, No.1, PP 43-46. Stigler,G.J., (1971), The Theory of Economic Regulation, Bell Journal of Economics and Management Science, Volume.2,No.2,pp 3-21.

Sinha.T,(2005), An Analysis of the Evolution of Insurance in India, Centre for Risk & Insurance Studies (CRIS) Discussion Paper Series 2005.111, The University of Nottingham.