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# FINANCIAL PERFORMANCE OF SELECT GENERAL INSURANCE COMPANIES IN INDIA USING CARAMEL MODEL

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#### **ABSTRACT**

Insurance companies are financial institutions that pools risk from individuals and also from companies through insurance contract making exposure to risk to the whole economy lower. To do so the industry should financially solvent, operationally sound and have adequate capital base and alarming risk management system. Financial performance of the insurance company is the key behind their success and stability therefore the insurance regulatory authority had designed variety of models to develop their performances. The objective of the study is to analyze the financial soundness and the relationship between the variables of the select general insurance companies in India. CARAMEL model has been used to analyze the financial performance of the select top five general insurance companies in India and Correlation has been used to examine the relationship between variables. The study concludes that all the companies performed well during the period of study and Overall performance of the New India Assurance was good.

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**KEY WORDS:** General Insurance, CARAMEL Model, Financial Performance

**JEL CLASSIFICATION:** G22, B23

#### **INTRODUCTION**

Insurance is a form of risk management which is used to hedge or cover the risk of contingent and uncertain loss. The insurance sector acts as mobilize of savings, a financial intermediary, a promoter of investment activities, a stabilizer of financial markets and a risk manager in the economy.

Since 1991, Indian economy has undergone a sea change in the wave of globalization and

restructuring of domestic economy through a large number of measures in a real estate as well as in financial sector. Similarly, insurance industry in India also passed through a period of structural changes under the combined impact of general and insurance sector in particular.Reforms in the insurance sector (Life and General) in India commenced with the setting up of Malhotra Committee under the chairmanship of Dr. R.N.Malhotra, the ExGovernor

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of RBI, by the GOI in 1993 was formed for examining the structure of insurance industry and to recommend its future direction. The Committee's recommendations was submitted in 1994 which was accepted in principle by the government and started implementing the recommendations since December 1999, thus heralding an era of liberalization in the country's insurance sector, with the enactment IRDA Act, 1999 and establishment of Insurance Regulatory And Development Authority (IRDA) and opening up of Insurance Business (life and general) for private players with curb to foreign capital up to 26 per cent were the initial steps in this direction.

The non-life insurance segment has been regarded as one of the burgeoning sectors in the financial services sphere in India, because through this segment all the risks and financial damage caused by a third party can be alleviated. Many companies have roped into this segment which has evolved intense competition in the sector. Kramer (1996) states that it was a general belief then that insurance industry would never be same again and turbulent times are ahead for insurers. The shift in favour of market driven competition has brought about major changes to the industry. The inauguration of this new era of insurance development has not only seen the proliferation of new product and services but huge manpower and capital were deployed by insurers to manage the operations. The industry has also been maintaining a constant growth rate of 15 per cent to 16 per cent over the last few years. However, still the market is small in terms of insurance penetration and insurance density and as per international standard, India has a tremendous potential for growth.

The non-life insurance industry underwrote total premium of Rs.96379 crore in India for the year 2015-16 as against Rs.84684 crore in 2014-15, registering a growth of 13.81 per cent as against an increase of 9.20 per cent recorded in the previous year. The public sector insurers exhibited growth in 2015-16 at 12.08 per cent; over the previous year's growth rate of 10.24 per cent. The private general insurers registered growth of 13.12 per cent, which is higher than 9.62 per cent achieved during the previous year. The present study aims to analyze the financial performance of general insurance companies.

#### **REVIEW OF LITERATURE**

Sutan Emir Hidayat and Aaleya Mohammed Abdulla (2015), in their study entitled "A Comparative Analysis on the Financial Performance between Takaful and Conventional Insurance Companies in Bahrain During 2006-2011" examined and found that Conventional Insurance Companies in Bahrain performed better than Takaful

Companies in terms of profitability and efficiency during the study period. To measure the companies strength and weakness financial ratios have been used and additionally T-test is used in order to test the significant differences between ratios of Takaful Conventional Insurance Companies.

Saleena T.A (2014), in her study entitled "Performance Evaluation of Life Insurance Sector; A Comparative Study of Public Sector and Private Sector" examined and found that satisfaction level of private policy holders better than LIC. Therefore LIC should introduce innovative policies for improving the satisfaction level of consumers and improve the financial performance of private life insurance companies. Ratio analysis, Compound Annual Growth Rate and SWOT Analysis were used for the study.

Dr. Sumninder Kaur Bawa and SamiyaChattha (2013), in their study entitled "Financial Performance of Life insurers in Indian Insurance Industry" examined and found that profitability of life insurers is positively influenced by liquidity and size and negatively related with capital. Profitability does not show any relationship with solvency and insurance leverage. To measure the financial performance financial ratios have been used and to measure the impact multiple linear regression model have been used.

Joseph Oscar Akotey, Frank G Sackey, LordinaAmoah and Richard FrimpongManso (2010), in their study entitled "The Financial Performance of Life insurance Companies in Ghana" studied and found that whereas gross written premiums have a positive relationship with insurers' sales profitability, its relationship with investment income is a negative one and also life insurers have been incurring large underwriting losses due to overtrading and price undercutting. The results further revealed a setting-off rather than a complementary relationship between underwriting profit and investment income towards enhancement of overall profitability of life insurers. A Panel Data Analysis was adopted for the evaluation of determinants of insurers' profitability.

#### STATEMENT OF THE PROBLEM

General insurance companies constitute important financial institutions in the Indian economic system. Since, their inception, they have been growing enormously in terms of physical growth, financial ability and achieving operational efficiency by introducing different business products and improving the existing services. In the year 2015, IRDAI has expanded the players in Microfinance by including intermediaries such as NBFC's and BC's. In the same year Insurance Laws Act have been amended by increasing the FDI limit from 26% to

49% and disallow mis-selling through multilevel marketing of insurance products. The government of India launched a general insurance scheme called Pradhan MantriSurakshaBimaYojana (PMSBY), which is a personal accident insurance scheme. Keeping this new reforms or changes in view, the present study made an attempt to evaluate the financial performance of top five general insurance companies in India.

#### **OBJECTIVES**

- To analyze the financial soundness of selected top five general insurance companies in India
- To measure the relationship between the indicators of the CARAMEL Model

# **METHODOLOGY**

#### **Sources of Data:**

The study has used data from secondary sources which are collected mainly from the Annual Reports of the select top five insurance companies and also from various journals, magazines, newspapers and Websites.

#### **Sampling Design:**

The General Insurance Companies for this study were selected based on purposive sampling method, among the Insurance Companies listed with IRDA of India, top 5 General Insurance Companies in India were taken for the study on the basis of

market capitalization. The study period from 2006-2007 to 2015-2016

The following are the selected sample General Insurance Companies in India for the present study:

- Tata AIG General Insurance Co. Ltd
- Bajaj Allianz General Insurance Co. Ltd
- The New India Assurance Co. Ltd
- IFFCO Tokio General Insurance Co. Ltd
- ICICI Lombard General Insurance Co.
  Ltd

**Tools for Analysis:** The following statistical tools are used for the study.

- Mean
- CARAMEL Model
- Correlation

# Following are the list of abbreviations used in this study:

**CA** - Capital Adequacy

**AQ** - Asset Quality

**RIAI** - Reinsurance and Actuarial Issues

MS - Management Soundness

**EP** - Earnings and Profitability

LIQ - Liquidity

#### **ANALYSIS & INTERPRETATION**

Performance Analysis of Select General Insurance Companies for the Period of 2006-07 to 2015-16 (Ratios in Percentage)

			(Ratios in 1 ercen					
CATEGORY	INDICATORES	TATA AIG	BAJAJ ALLIANZ	NEW INDIA ASSURANCE	IFFCO TOKIO	ICICI LOMBARD		
CAPITAL ADEQUACY	NET PREMIUM / CAPITAL	2.32	22.80	41.79	5.42	7.21		
	CAPITAL / TOTAL ASSETS	0.81	0.13	0.01	0.48	0.23		
ASSET QUALITY	(RE+UE+D) / TA	0.57	0.45	0.25	0.68	1.31		
	R / (GP+RR)	0.19	0.12	0.47	0.19	0.50		
	E / TA	0.81	0.13	0.01	0.48	0.23		
REINSURANCE & ACTURIAL ISSUES	RISK RETENTION RATIO	0.64	0.70	0.80	0.66	0.60		
MANAGEMENT SOUNDNESS (Rs. in thousands)	GP / NOE	1266.41	10001.23	5483.78	13535.87	6305.50		
inousunus	TA / NOE	443.36	3480.21	12691.75	4276.22	2558.06		
EARNINGS & PROFITABILITY	LOSS RATIO	0.75	0.72	0.88	0.80	0.85		
	EXPENSES RATIO	0.43	0.30	0.26	0.29	0.31		
	COMBINED RATIO	1.18	1.02	1.13	1.08	1.16		
	INV.IN / NP	0.04	0.033	0.13	0.026	0.05		
	ROE	0.17	3.15	4.58	0.48	0.75		
LIQUIDITY	LA / CL	0.26	0.27	0.63	0.60	0.45		

Source: Annual Reports of Selected General Insurance Companies

Capital indicates whether the insurance company has the enough capital to absorb its losses arising from claim. Higher Capital Adequacy Ratio means capital is sufficient to the smooth run of the insurance business. First indicator Net Premium to Capital Ratio depict that New India Assurance secured the highest average Ratio of 41.79 percent and Tata AIG has the lowest average Ratio of 2.32 percent due to less usage of capital to collect the biggest amount of premium. Second Indicator Capital

to Total Assets Ratio implies that Tata AIG secured with the highest average Ratio of 0.81 percent and New India Assurance has the least average Ratio of 0.01 percent due to not having the enough capital to manage its assets. Overall maintenance of capital is good in New India Assurance.

The Asset Quality is to ascertain the advances which the insurance company has made to generate interest income. And also asset quality analysis reflects the quantum of existing and potential credit risk associated with the loan and investment portfolios, real estate assets owned and other assets. Based on this, Ratio of the sum of Real Estate value, Unquoted Equities and Debtors with relation to Total Assets is high in ICICI Lombardwith a highest average Ratio of 1.31 percent and New India Assurance has the lowest average Ratio of 0.25 percent due to earlier robust growth in investments, fixed assets and advances and later increase in short term assets. In the indicator Receivables to Sum of Gross Premium written and Reinsurance, ICICI Lombard secured the highest average of 0.50 percent and Bajaj Allianz has the lowest average of 1.31 percent. In terms of Equities to Total Assets Ratio New India Assurance secured the lowest average of 0.01 percent and Tata AIGhas the highest average of 0.81 Percent. As a whole, New India Assurance is generating more interest income from the advances.

The Risk Retention Ratio is measured to calculate how much of the risk is being carried out by the insurer rather than being passed to the reinsurers. Based on this ratio New India Assurance secured the highest average ratio of 0.80 percent and ICICI Lombard has the lowest average of 0.60 percent. It implies that New India Assurance Company is taking more risk rather than passing risk to Reinsurance Company.

Management Soundness is an important part of the CARAMEL analysis. First indicator of this is Gross Premium in comparison to number of employees implies that how much of premium is collect from each employee. It is found IFFCO Tokio

secured highest average amount of rupees 13,535.87 thousands and Tata AIG has the lowest average amount of rupees 1266.41 thousands. Another indicator of management soundness, asset per employee implies that New India Assurance secured with the highest average amount of rupees 12,691.75 thousands and Tata AIG secure with a lowest average amount of rupees 443.36 thousands. Overall, New India Assurance and IFFCO Tokioare good at soundness of the management.

Earnings are one of the key sources of inbuilt long term capital base for an insurance company. It has five indicators to measure. In terms ofLoss Ratio, low loss incurring is good for financial health of the insurance companies. The ratio implies that Bajaj Allianz secured the top position with lowest average Loss Ratio of 0.72 percent and New India Assurancewas at the bottom most position with a highest average Loss Ratio of 0.88 percent. New India Assurance secured the top position with lowest average Expense Ratio of 0.26 percent, which believed to be a good gesture for improving financial strength and Tata AIG isat the bottom most position with a highest average Expense Ratio of 0.43 percent. In terms of Combined Ratio Tata AIG has the highest average Ratio of 1.18 percent and Bajaj Allianz has the lowest average Ratio of 1.02 percent. Investment Income to Net Premium Ratioimplies that New India Assurance secured with the highest average Ratio of 0.13 percent and IFFCO Tokio was at the lowest average Ratio of 0.026 percent. In terms of Return on Equity New India Assurance secured the highest Ratio of 4.58 percent and Tata AIG secured the lowest average Ratio of 0.17 percent. New India Assurance's performance is better than the other companies.

Return on Liquid Assets to Current LiabilitiesRatio depicts that, New India Assurance secured highest average Ratio of 0.63 percent and Tata AIG has the lowest average ratio of 0.26 percent.

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## **CORRELATION**

**Correlation Analysis of Select General Insurance Companies** 

		CA	AQ	RIAI	MS	EP	LIQ
CA	Pearson Correlation	1					
AQ	Pearson Correlation	665*	1				
RIAI	Pearson Correlation	.754*	067	1			
MS	Pearson Correlation	.875**	757*	.554	1		
EP	Pearson Correlation	260	105	552	.092	1	
LIQ	Pearson Correlation	426	.832**	.140	683*	577	1
CA	Pearson Correlation	1					
I		BAJAJ ALL	IANZ GENER	AL INSURAN	CE	<u>l</u>	
AQ	Pearson Correlation	505	1				
RIAI	Pearson Correlation	.632	.016	1			
MS	Pearson Correlation	.980**	530	.479	1		
EP	Pearson Correlation	.916**	493	.321	.961**	1	
LIQ	Pearson Correlation	681*	.817**	.018	766**	752*	1
I		NEV	W INDIA ASS	URANCE		<u>l</u>	
CA	Pearson Correlation	1					
AQ	Pearson Correlation	.391	1				
RIAI	Pearson Correlation	.804**	.549	1			
MS	Pearson Correlation	.965**	.262	.784**	1		
EP	Pearson Correlation	.236	504	.217	.271	1	
LIQ	Pearson Correlation	311	.435	068	277	752*	1
I		l	IFFCO TOK	10	I.	<u>l</u>	
CA	Pearson Correlation	1					
AQ	Pearson Correlation	808**	1				
RIAI	Pearson Correlation	.904**	582	1			
MS	Pearson Correlation	.993**	810**	.889**	1		
EP	Pearson Correlation	.880**	905**	.727*	.912**	1	
LIQ	Pearson Correlation	836**	.784**	777**	779**	656*	1
1			ICICI LOMBA	ARD	ı	<u> </u>	
CA	Pearson Correlation	1					
AQ	Pearson Correlation	005	1				
RIAI	Pearson Correlation	.642*	.628	1			
MS	Pearson Correlation	.965**	236	.475	1		
EP	Pearson Correlation	.833**	350	.289	.911**	1	
	Pearson Correlation	864**	.402	265	911**	889**	1

The above table shows the correlation of select general insurance companies in India. It is inferred from the correlation of Tata AIG shows that RIAI (0.754) and MS (0.875) are positively correlate with CA. And AQ (-0.665) is negatively correlate with CA. LIQ (0.832) has the positive correlation and MS (-0.757) has the negative correlation in terms of AQ. LIQ (-0.683) is negatively correlate with MS.

In terms of Bajaj Allianz, MS (0.980) and EP (0.916) has positive relationship with CA and LIQ has the negative relationship with CA. LIQ (0.817) is positively correlate with AQ. In terms of MS, EP (0.961) has positive relationship and LIQ (-0.766) has negative relationship. And also LIQ (-0.752) is negatively correlate with EP.

Correlation for New India Assurance depicts that RIAI (0.804) and MS (0.965) has positive relationship with CA. MS (0.784) is positively correlate with RIAI. And LIQ (-0.752) is negatively correlate with EP.

It is inferred from the correlation of IFFCO Tokio shows that RIAI (0.904), MS (0.993) and EP (0.880) are positively correlate with CA. AQ (-0.808) and LIQ (-0.836) are negatively correlate with CA. In terms of AQ, LIQ has positive relationship and MS (-0.810), EP (-0.905) has negative relationship. MS (0.889) and EP (0.727) are positively correlate with RIAI. LIQ (-0.777) has the negative relationship with RIAI. In terms of MS, EP (0.912) has positive correlation and LIQ (-0.779) has negative correlation. And also LIQ (-0.656)has the negative correlation with EP.

In terms of ICICI Lombard, RIAI (0.642), MS (0.965) and EP (0.833) are positively correlate with CA and LIQ (-0.864) is negatively correlate with CA. In terms of MS, EP (0.911) has positive correlation and LIQ (-0.911) has negative correlation. And LIQ (-0.889) has negative correlation with EP.

#### **SUGGESTIONS**

- 1. The Tata AIG general insurance may utilize its capital more to get biggest amount of premium by increasing the value of capital.
- 2. Inclusion of more equity will surely make the asset quality of general insurance companies better.
- Management Efficiency of Tata AIG is not satisfied among all other companies. So, it may manage its assets as well as premiums by taking appropriate measure to get good result.

4. Tata AIG and Bajaj Allianz should increase their standard to face thetiming of the insurance claims or benefits are uncertain event.

#### **CONCLUSION**

Insurance companies are exposed to different types of risk by doing their core business, starting from underwriting risks that are accepted from insurers, through investment risks to the nontechnical risks such as management risk, business risk and legal risk. Based on the study, all the companies performed well during the period of study and Overall performance of the New India Assurance was good. And all the insurance companies should pay proper attention to capital adequacy and liquidity positions, as well as management soundness because these indicators plays an important role in the financial efficiency of the insurance companies to stay in this competitive sector.

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