

A Study of Determinants and Their Impact on Financial Performance of Private Non-Life Insurance Industry in India

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Abstract

Insurance industry plays a prominent role in economic development of a country. Since India has opened its insurance industry for privatization; it is flourishing with a faster pace. Services Industry in general and financial services industry specifically has become one of the strongest growth drivers for Indian economy. Therefore, it becomes imperative to study the determinants of financial performance of the private non-life insurance industry in India. The study intends to identify the internal financial determinants influencing the financial performance of private non-life insurance companies in India and to study their impact on the performance. To achieve the objectives of study, financial reports of fifteen private general insurance companies are collected from the year 2013 to 2019. Return on Assets (ROA) is taken as proxy for profitability/performance measure and twelve independent variables have been selected after extensive literature review. Panel Data Regression analysis is employed on the data and Fixed Effects Model (FEM) have been applied to analyze the impact of independent variables on ROA. The empirical results revealed that 'Age of the Company', 'Claims Ratio', 'Management Expense Ratio', 'Premium Growth', 'Retention Ratio' and 'Technical Reserve Ratio' are statistically significant determinants affecting the financial performance of respondent firms. 'Age of the Company' and 'Technical Reserve Ratio' has a positive relationship with profitability, while 'Claims Ratio', 'Management Expense Ratio', 'Premium Growth' and 'Retained Ratio' are inversely related to profitability of respondent firms.

Keywords: *Financial Performance, Return on Assets, Internal Financial Determinants, Insurance Industry, Non-Life Insurance Companies*

I INTRODUCTION AND RATIONALE

Insurance is the business of protecting the economic worth of assets. Insurance is a form of financial protection that helps to mitigate the financial impact of unexpected events. Insurance companies promise to pay a certain amount of money to the insured person or beneficiary of an asset in the event of a loss. The insured person pays the insurance company a set amount of money to cover the risk, which is called premium.

Insurance companies are a vital part of an economy. This is because in today's volatile world, individuals and companies can't afford to take on all types of risks. An analysis of the financial results of private Non-Life Insurance companies helps in determining the financial situation of the firms under consideration. It is crucial to identify the variables or the factors that influence the financial performance of Indian Non-Life Insurance industry. This is the rationale of the study.

II REVIEW OF RELATED LITERATURE

Almajali, M., & Shamsuddin, Z. (2019) study looked at how the capital structure of Jordan insurance companies affects their profitability. They found that short-term and long-term debt have a good relationship with ROE. They also found a good relationship between the leverage position of companies and their profitability.

Poudel, B. (2019) conducted a study and confirmed a negative relationship of liquidity with ROA, while factors such as firm size, age & leverage had a positive relationship. The Poudel study also showed a negative correlation between liquidity and ROE, and a positive correlation between firm size, age, leverage and tangibility. A regression analysis of the Poudel study showed that firm size had the most significant impact on profitability of insurance companies.

Ajao, M. G., & Ogieriakhi, E. (2018) assessed the impact of determinants on the financial performance and the empirical data showed a positive correlation between profitability and the age of insurance companies in Nigeria. On the other hand, the empirical data showed a significant but negative correlation between the firm size and the growth rate of the insurance companies and their profitability. The negative correlation is attributed to the economies of scale that occurred as a result of the uncontrolled growth of the insurance company in Nigeria.

Mazviona, B., Dube, M., & Sakahuhwa, T. (2017) authors carried out a study on the impact of liquidity on insurance company performance in Zimbabwe. They found that while liquidity had a positive and significant effect on insurance company profitability, the effect of size and capital investments had a negative but significant effect.

(Chandrayya G., 2015) ,“Opportunities and challenges of insurance industry in India”, according to him the insurance sector play an important in the service sector in Indian economy. The major finds was the requirement of marketing strategy should be systematized and effective before the policies issued. The services should be designed to provide the customers at full reliance and satisfactory.

Burca, A. M., & Batrinca, G. (2014) studied the financial performance of the insurance market in Romania between 2008 and 2012 is assessed in the study of 41 insurers. Panel data regressions were used with 13 variables. The findings of the study indicate that the key determinants that influence the financial performance of insurers in Romania are the size of the company, its loss ratio, its financial leverage, its growth, its underwriting risk, its risk retention

ratio and its solvency margin.

Darzi, T.A. (2011) looked at the financial performance and factors that affect the solvency of 12 non-life insurance companies in India (4 public sector and 8 private sector). He used a CAMELS Model and a multiple regression analysis to get an idea of how well the companies were doing.

Adams, M., & Buckle, M. (2003) conducted an analysis of the financial performance of insurers in one offshore financial centre (Bermuda insurance market). Their analysis was based on a sample of 47 insurers covering a 12-year period (1993 to 1997). The scope of the study was limited to company characteristics, which were considered as independent variables. The panel data analysis exhibited that insurers with a high leverage ratio, a low liquidity ratio and a reinsurance company with a high underwriting risk ratio have a higher financial performance than the 43 insurers at the other end of the spectrum. The authors also noted that there is an association between underwriting and performance, and that size and business activities are irrelevant to financial performance.

III RESEARCH GAP

On reviewing the available research literature, it has been revealed that there is a dearth of research work regarding financial performance and related internal financial determinants concerning the Indian private sector non-life insurance companies.

IV RESEARCH QUESTIONS

- What are the internal financial determinants specific to the Indian Private Non-Life Insurance companies that have a bearing on their financial performance?
- How do these determinants affect the financial performance of these companies?

V RESEARCH OBJECTIVES

- To explore the key internal financial determinants that influence the financial performance of private non-life insurance companies in India.
- To examine the effect of key internal financial determinants on the financial performance of the respondent companies.

VI RESEARCH DESIGN AND METHODOLOGY

Nature of the study and type of data:

The present study will be exploratory cum descriptive and empirical in nature and will be based on the secondary data.

Target population & Sample size:

The population will comprise of all the 21 private sector non-life insurance companies of India as of March 31, 2020 and a sample of 15 companies is drawn from the population.

Table No. 1
List of Non-Life Insurance Companies Considered as a Sample Size

S.No.	Name of the insurance company	Sector
1.	Bajaj Allianz General Insurance Co. Ltd.	Private
2.	Cholamandalam MS General Insurance Co. Ltd.	Private
3.	Future Generali India Insurance Co. Ltd.	Private
4.	HDFC Ergo General Insurance Co. Ltd.	Private
5.	ICICI Lombard General Insurance Co. Ltd.	Private
6.	Iffco Tokio General Insurance Co. Ltd.	Private
7.	Liberty General Insurance Ltd.	Private
8.	Magma HDI General Insurance Co. Ltd.	Private
9.	Raheja QBE General Insurance Co. Ltd.	Private
10.	Reliance General Insurance Co. Ltd.	Private
11.	Royal Sundaram General Insurance Co. Ltd.	Private
12.	SBI General Insurance Co. Ltd.	Private
13.	Shriram General insurance Co. Ltd.	Private
14.	Tata AIG General insurance Co. Ltd.	Private
15.	Universal Sompo general Insurance Co. Ltd.	Private

(Source: <https://www.irdai.gov.in/list-of-general-insurers>)

Period of the study

The period we looked at was before the pandemic. That means we looked at 6 financial years, starting in 2013-14 and ending in 2018-19.

Data collection

The present study is based on secondary data and data are collected from companies' annual reports, IRDA website and other reputed websites, research journals, books, newspapers, periodicals, research articles, magazines etc.

Dependent and Independent variables of the study

- Return on Assets (ROA)

ROA= Profit Before Tax/ Total Assets

Table No. 2

Name of Internal Financial Determinants	Measures
Age of the Company (AGE)	Number of years from the date of establishment of insurer till 31/03/2019
Claims Ratio (CLM)	(Net incurred claims/ Net earned premium)* 100
Commission Ratio (COMM)	(Net commissions/ Net earned premium)* 100
Financial Leverage (LEV)	Total Debt/ Shareholder's equity
Liquidity (LQD)	Current assets/ Current liabilities
Management Expense Ratio (MER)	(Expenses of Management/ Net written premium)* 100
Premium Growth (PG)	$(GWP(t) - GWP(t-1)) / GWP(t-1)$, where GWP is Gross Written Premium
Reinsurance Dependence (REINS)	Gross written premiums ceded in reinsurance/ Total assets
Retention Ratio (RETR)	(Net Written Premiums/ Gross Written Premiums)* 100
Size of the Company (SIZE)	Natural log of total net assets
Tangibility of Assets	Fixed Assets/ Total Assets
Technical Reserve Ratio (TRR)	Technical Reserves/ Net premium

(Source: Processed by Authors)

VII DATA ANALYSIS & INTERPRETATION

Data Screening and Analysis Tools

After a thorough review of the existing literature, identified data analysis tools were used to meet the research goals of the present research work. First, the data was screened for data quality through normality, heteroskedasticity, multi-collinearity and auto-correlation. Statistical tools such as Fixed Effects Regression analysis model and correlation methods have been applied to identify the determinants that affect the financial health of non-life insurers in India.

The collected data has been analyzed using Panel Data Regression Analysis with the help of SPSS 25.0.

Regression Analysis

Panel Data Analysis regarding impact of internal financial determinants on the profitability measure i.e.; Return on Assets (ROA) is as follows:

Table No. 3
Panel Data Analysis Model (ROA with Internal Financial Determinants)

Fixed Effects regression model						
ROA	Coefficients			Significance level (p-value)		
Variables	(a)	(b)	(a-b)	(p)	(q)	(p-q)
	Fixed	Common	Difference	Fixed	Common	Difference
(Constant)	48.529	51.893	-3.364	0.000	0.000	0.000
AGE	0.227	0.243	-0.016	0.007	0.001	0.006
CL	-0.280	-0.279	-0.001	0.000	0.000	0.000
COMM	-0.096	-0.097	0.001	0.199	0.164	0.035
LEV	-0.056	-0.049	-0.007	0.428	0.453	-0.025
LQD	-1.753	-0.886	-0.867	0.443	0.687	-0.244
MER	-0.233	-0.246	0.013	0.000	0.000	0.000
PG	-0.016	-0.016	0.000	0.001	0.001	0.000
REINS	-0.122	-0.082	-0.040	0.592	0.712	-0.12
RETR	-0.095	-0.094	-0.001	0.004	0.002	0.002
SIZE	-0.829	-1.099	0.270	0.067	0.007	0.060
TANG	0.314	0.519	-0.205	0.356	0.094	0.262
TRR	2.246	2.301	-0.055	0.000	0.000	0.000
D1	-0.389	–	-0.389	0.648	–	0.648
D2	-1.605	–	-1.605	0.080	–	0.080
D3	-1.043	–	-1.043	0.283	–	0.283
D4	-0.646	–	-0.646	0.516	–	0.516
D5	-1.176	–	-1.176	0.264	–	0.264

Dependent variable: ROA

On the basis of analysis, following regression model is proposed on the basis of explored significant internal financial determinants:

$$\text{ROA} = 48.529 + 0.227 \text{ AGE} - 0.280 \text{ CL} - 0.233 \text{ MER} - 0.016 \text{ PG} - 0.095 \text{ RETR} + 2.246 \text{ TRR} + \varepsilon$$

As per the above table exhibiting the output of Fixed Effects Regression Model, Age of the Company (AGE) (0.227, at 5% level of significance with p-value 0.007) has a positive and significant effect on ROA. Claims Ratio (CL) (-0.280, at 5% level of significance with p-value 0.000) has a significant but negative effect on ROA. Commission Ratio (COMM) (-0.096, at 5% level of significance with p-value 0.199) has negative and insignificant effect on ROA. Financial Leverage (LEV) (-0.056, at 5% level of significance with p-value 0.428) has negative and insignificant effect on ROA. Liquidity (LQD) (-1.753, at 5% level of significance with p-value 0.443) is insignificantly and negatively affecting ROA. Management Expense Ratio (MER) (-0.233, at 5% level of significance with p-value 0.000) has significant but negative effect on ROA. Premium Growth (PG) (-0.016, at 5% level of significance with p-value 0.001) has a negative but significant effect on ROA. Reinsurance Dependence (REINS) (-0.122, at 5% level of significance with p-value 0.592) has negative and insignificant effect on ROA. Retention Ratio (RETR) (-0.095, at 5% level of significance with p-value 0.004) has negative but significant effect on ROA. Size of the Company (SIZE) (-0.829, at 5% level of significance with p-value 0.067) has negative and insignificant effect on ROA. Tangibility of Assets (TANG) (0.314, at 5% level of significance with p-value 0.356) has positive but insignificant effect on ROA. Technical Reserve Ratio (TRR) (2.246, at 5% level of significance with p-value 0.000) has a positive and significant effect on ROA.

VIII FINDINGS & CONCLUSION

The significant internal financial determinants that affect the financial position of the private sector non-life insurance companies found are:

Age of the Company (AGE) has a positive and significant impact on ROA. It means that established insurance companies have better financial performance as these are more effective in implementing risk management strategies than newly established companies.

Claims Ratio (CL) has a negative significant effect on ROA. High number/amount of claims has exhibited a detrimental effect on the financial health of the company.

Management Expense Ratio (MER) is found to be significantly but negatively affecting ROA. If an insurer's expense ratio is too high, it's a sign that they're not running as efficiently and profitably as they could be.

Premium Growth (PG) has negative significant effect on ROA. An uncontrolled or excessive increase in premium volumes can lead to or exacerbate other potential risks to the company's viability.

Retention Ratio (RETR) has a significant but negative effect on ROA. Determining the right retention rate is one of the most important decisions that insurance companies have to make, and they need to find a way to mitigate the risk of insolvency while minimizing the loss of profitability.

Technical Reserve Ratio (TRR) has a positive and significant effect on ROA. Having sufficient provisions for technical liabilities helps improve the financial health of insurance companies.

It can be concluded from the results that private sector non-life insurance companies of India should focus on the above mentioned determinants to stay profitable and prosper in the dynamic economic environment.

IX LIMITATIONS & FUTURE SCOPE OF THE STUDY

The whole Insurance industry of India is not considered. Public non-life insurance companies, Life insurance companies and Reinsurance companies were not considered for the research work. All private non-life insurers in India are not considered due to the unavailability of data for the study period.

More internal financial determinants may be considered for the future study purpose and to improve the models. External determinants may also be considered to analyze the impact on financial performance comprehensively.

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