Impact of Liquidity, Tangibility and Size of a firm on the Life Insurance Companies Profitability in India

Ankit Shahi¹ and Meenakshi Agnihotri²
¹Department of Management, Christ University, INDIA.
²Department of Management, Christ University, INDIA.

¹Corresponding Author: shahi.ank89@gmail.com

Date of Submission: 07-01-2022 Date of Acceptance: 22-01-2022 Date of Publication: 28-02-2022

ABSTRACT

The study aimed at investigating the elements that influence life insurance companies’ profitability in India. Insurance company financial statements for the year 2021 were obtained from 10 life insurance companies in India. SPSS was utilized in analysing the data and evaluating the regression model. The findings of the analysis indicated that the combined independent variables in the study had a significant effect on the life insurance companies’ profitability in India as the regression model used in the study was significant at 0.5 confidence level. Liquidity, Tangibility and the size of insurance company are important aspects hence the Managers should place important management techniques in order to sustain the life insurance companies’ profitability.

Keywords: Determinants, insurance companies, financial statement, risk management, capital structure, profitability.

I. INTRODUCTION

An insurance company’s goal is to make a profit, which is a must for any insurance venture. The most important and reliable indicator of profitability is that it gives a wide indication of an insurance firm's ability in increasing its revenue level. Managers describe profits in practice as difference between total income from other sources as well as total spending on the management of a portfolio of assets and liabilities. Profitability is defined by Charumathi as a company's ability to generate revenue through the efficient utilization of its assets. The insurance industry, which is supposed to protect other industries from risk, appeared to be losing momentum as parties who should be securing or breaking new ground left it behind. In the actual world, the profitability of any business is linked to the firm's performance. Profitability is the proxy for financial performance, which is among the management's primary goals. It is a necessary condition for a company's market competitiveness to improve. Insurance company profitability might be examined on the macro and micro-economic levels, with internal factors such as the company’s specific characteristics.

To increase profitability, you must first determine which aspects of your business and financial strategy are functioning and which ones need to be improved. Managers may build an effective profitability strategy for their organization by understanding the primary factors that determine profitability and their magnitude. Choosing a capital structure for a company is largely a financial and marketing choice impacted by the company's risk and return characteristics as well as management. Low financial literacy, poverty, and a lack of confidence (insurance companies' failure to resolve claims) are all issues that the industry faces on a daily basis, and the combination of all of these has had a detrimental effect on the profitability about listed insurance firms and their penetration.

India's insurance industry has 57 insurance firms. The city is home to 24 life insurance businesses and 34 non-life insurance companies. The only publicly listed life insurance firm is the Life Insurance Corporation (LIC). In the non-life insurance market, there are six public sector insurers. Apart from that, India's only national re-insurer is the General Insurance Corporation of India (GIC Re). Other players in the Indian insurance business include brokers, agents (both corporate and individual), third-party administrators, and surveyors' administrators who deal with health insurance concerns. The amount of money a corporation may make with its resources is referred to as profitability. Most businesses strive to make as much money as possible. Profitability is defined as an organization's, company's, or corporation's potential of profiting from its activities. A return on the investment made by the entrepreneur is known as profit. Profit is, without a doubt, an entrepreneur's major drive fordoing business. Occasionally, profit is utilized as a metric to assess a firm's performance. Profit is defined as the difference between total expenditures, and sales revenue that entails materials, labor, among other expenditures.
Because insurance firms are in a risk business, they engulf a wide hazards range for personal, corporations, and businesses. As a result, insurance firms must control their risk exposure and carry out thorough analysis in order to prevent losses. “Most insurance companies cover insurable risks without doing a proper study of the expected claims from clients and without putting in place a framework for identifying effective risk reduction methods,” remarked. Profitability can refer to both economic and accounting earnings, and major goal for the company. Besides, Profitability measures how well a company's management converts its resources into profits. As a result, companies are expected to earn more from increased profitability. Profitability is essential for the firm's survival as well as long-term success. Profitability attracts investors; hence the firm is more likely to stay in business for the long haul. A lot of businesses strive to increase their profitability does waste many hours on meetings in efforts of find a way to cut operating fee and increase sales.

II. OBJECTIVES OF THE STUDY

The study was designed to assess aspects impacting profitability of India’s Life Insurance Companies with the following specific objectives:

- To study capital structure and life insurance companies’ profitability in India
- To investigate the importance of resource management in Life Insurance Companies
- To Investigate how financial performance’s influences the life insurance companies' profitability in India
- To study the impact of Liquidity, Tangibility, and size of a firm on the life insurance companies’ profitability in India

Statement of the Problem

Over the last five years, underwriting profits for insurance companies have been declining (industry avg. 3%). Weak pricing, a surge in fraudulent claims, excessive administrative costs, and excessive underwriting and acquisition costs have all been blamed. Research was done to examine the performance of life insurance businesses in India, as well as the variables determining their profitability.

Also carried out a study to investigate how the life insurance companies in India were performing. As a result, the author suggests that the insurance’s businesses profitability performance in India is likely to be influenced by internal and external aspects such as liquidity ratio, firm size, liquidity ratio, premium growth, and capital sufficiency. High underwriting expenses have also dragged on the underwriting profit margin, which has been below industry average (-17 percent compared to 5% in 2011). The profitability of insurance businesses in India, on the other hand, varies with time. Internal characteristics such as the firm's liquidity growth rate, tangibility, and the size of the insurance company are some of the elements that affect profitability, according to certain research. The effect of liquidity, tangibility and size of the firm on life insurance companies’ profitability in India has been neglected in the past hence the need to fill the knowledge gap. The purpose of this research is to examine the factors that impact the profitability of life insurance businesses in India.

Literature Review

Business insurance firms: what they do and why they're needed Recent study has shown that the efficacy and transfer of financial intermediaries affects economic development, while their insolvency leads to systemic crises with negative consequences for the economy as a whole. Thus, we can claim that without financial institutions, such insurance firms, today's commercial environment would be unstable. This is due to the fact that, on the one hand, there is a frequent occurrence of surpluses in certain business units and deficits in others, and, on the other hand, firms lack the ability to absorb all of their risk in the unpredictable environment in which they operate. Renbao Chen claimed that high earnings give the tools (more funds available) as well as incentives to future investment that is higher return rate. Insurance firms own dual responsibilities, have to become profitable for making new investments and have the essential soundness to convert other areas of the economy to the former state once a damage occurs.

III. FACTORS AFFECTING INSURANCE FIRMS' PROFITABILITY

Financial performance measurements are designed to examine the efficiency and effectiveness by which companies provide resources to help shareholders build wealth. Klammer (1973) described financial performance as a financial health indicator or measure of profitability, resulting from the revenue and expense analysis. The financial statement analysis plays a vital function in helping to evaluate a company's financial performance by extracting a meaningful ratio that will help control deficits and take corrective measures to improve performance.

It is useful to obtain insight into the company's financial performance, calculate ratios to quantify the firm's performance trend over time and compare it to other businesses. As a useful tool to analyze the ratios of a company to identify the financial strengths and weaknesses, supported benchmarking, by means of trend analysis of firm ratios over a certain period or by comparing results with the closest competitor in the industry. Insurance firm financial performance
measures are defined as the potential for sustainability, growing new insurance products, increasing prizes, high retention of the customer and other performance improvements that produce value for owners.

Insurance companies, key performance indicators (KPI) include product value rates that show the performance of the insurance company in limiting its paid net commissions, borrowing expense and overhead while reaching a given level of premium, product awareness and satisfaction, which indicate awareness and competitive and service qualification. Indicators which reflect the reactive service and the insured's understanding of the product. The performance of four financial perspectives, customers, internal company processes and learning and growth may be evaluated on a balanced scorecard of important success elements. Financial performance is a measure of the profit, profit and worth of a business as demonstrated by the increase in its share price. Net premium produced, underwriting revenue, annual turnover, investment returns and equity returns are all popular performance measurements in the insurance industry.

**Capital Structure**

Capital structure refers to a mix of different sorts of capital a corporation is using to finance its activities through a combination of debt, equity or hybrid securities. The capital structure therefore constitutes the precise combination of long-term debt and equity used by a company to finance its business and determines the optimum mix that is optimal and contributes to the company's risk and value. A company or finance manager's basic purpose is to establish an optimal capital structure which leads to the lowest overall capital cost and hence contributes to a good value for money. The capital structure is significant to a company and that there is a capital structure that minimizes capital costs and that the firm's value is also maximized and is typically referred to as an ideal capital structure.

Companies could issue bonds, convertible bonds and securities with equity or debt capital issuance in an attempt to discover the greatest mix that maximizes corporate value. The capital structure determinants also applicable to insurance firms shall include profitability, growth, tax and asset structure, company size and age of the company. High profitability companies employ low debt to support their operations. Highly growing companies tend to have large external debt levels to finance growth. High quantities of tangible assets can support high debt if pledged as collateral. Therefore, the capital choices between debt and equity will be defined by the level of risk exposure to its operations and the funding of alternatives. Company size determines the structure of capital, which is backed large companies tend to operate more leveraged. Other macroeconomic considerations such as inflation, GDP and existing interest rates affect decisions on capital structures. In order to ensure that capital structure decisions and choices of insurance firms are optimal, they must promote future growth and create value for the owners.

**Risk Management**

Financial risk management refers to a company's policies and procedures for reducing exposure risk. Financial management's high volatility rate in its interest, is an environmental element that translates in risk, indiscriminate damage, profitability, and value shape, in any organization. Interest rate risk is reflected in asset market value changes, whereas ceased cash flow determines asset value using interest rate or capital weighted average cost. According to Bakaeva and Sun (2009), credit risk management and commercial bank profitability are favorably associated in Sweden.

In Nigeria, discovered a positive link between the two. Highlights that having the right resources in place can help an organization function better. The resource-based concept has piqued management researchers' interest, and various papers describe how it might give long-term competitive advantage when resources are handled in such a way that their outputs cannot be reproduced by competitors, so creating a competitive barrier for the organization. "Ensuring that a company makes cost-effective use of risk management first includes defining an approach built on well-defined risk management principles and then embedding them,“.

### IV. THEORETICAL FRAMEWORK

**Theory of Risk Management**

"Risk Management,’ is risk identification, assessment, and priority setting followed by coordinated and cost-effective resource use to limit, monitor, control and/or maximize the probability and/or unfortunate events’ effect.’ Ranong & Phuenngam wrote: "Effective hazard management may bring far-reaching benefits for all enterprises – whether larger or small, public or private."

Superior financial performance, improved strategic basis for the delivery of services, improved competitiveness, reduced firefighting times and unwelcome surprise, increased probability of success with the initiative, increased internal focus on correcting things, more efficient utilizing resources, decrease waste and fraud and better value include. "Ensuring an enterprise makes cost-effective use of risk management first involves developing and then integrating a methodology based on well-defined risk management principles," Dorfman says.

From 1995 to 2010, examined competition and efficiency of the Netherlands life insurance market, estimated wasteful economies and assessed patterns of market share in efficiency. The study found insurance company’s size to have a significant effect on economies of scale and under-used economies of scale do not exist under strong competition. The financial performance of public as well as private life insurance firms. Different measurements for this aim, including number of life insurance businesses, offices in the private sector, penetration and density insurance, premium
income growth and insurance market size were discussed. Financial success has been measured by a range of financial ratios. According to the data, the Indian life insurance industry's overall business performance greatly improved after privatization.

**Modigliani-Miller theory**

Franco Modigliani and Merton Miller's proposed Modigliani theorem is the cornerstone for modern thinking on capital structure, although often seen as purely theoretical because it presupposes several essential aspects in decision-making about capital structure. The theory asserts that the way a company is financed is immaterial to its value in a perfect market. This result offers the basis for examining real world reasons why capital structure is important, namely that the value of a corporation is affected by its capital structure. These include, to name a few, bankruptcy expenses, agency expenses, taxes and asymmetry of information. This research can then be expanded to examine if an optimal capital structure exists: the one that optimizes the company's worth.

V. **RESEARCH METHODOLOGY**

**Research Design**

Significant elements that impact life insurance businesses' profitability in India were studied using a quantitative design method. Panel regression analysis was also conducted to check whether there were interaction effects on variables used in this study.

**Population**

A population is the entire collection of items that the researcher wants to learn about. The study consists of 10 life insurance companies in India that were selected randomly from the entire population of life insurance companies.

**Data source and method of data Collection**

Financial statements of the 9 insurance companies were examined. Some of the factors looked into were, return on assets (ROA), tangibility, liquidity and the size of the company. The ratio of net income to total assets recorded in each company's balance sheet was used to determine return on investment (ROA). Liquidity refers to changing assets of the company to cash at ease. It was calculated by dividing current assets with current liabilities. Tangibility was calculated by dividing fixed assets with total assets and it reports the strength of the company and finally size of the insurance company in the study.

**Sample Design**

The analysis was based on insurance companies selected through simple random sampling design to ensure all life insurance companies had equal chances of being selected. The sample count was 9 insurance companies. Data was collected for five previous years in order to observe expected trends.

**Model Specification**

A multivariate regression model was used to determine the relative impact of each independent variable on the profitability of insurance firms. The following was the regression model:

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon
\]

Where by,

\[Y = \text{ROA}\]

\[X_1 = \text{Liquidity}\]

\[X_2 = \text{Tangibility}\]

\[X_3 = \text{Size}\]

\[\epsilon = \text{Error term and } \beta_0, \beta_1, \beta_2 \text{ and } \beta_3 \text{ are the regression equation coefficients for each of the variables discussed.} \]

Generally,

\[\text{ROA} = \beta_0 + \beta_1 \text{Liquidity} + \beta_2 \text{Tangibility} + \beta_3 \text{Size} + \epsilon\]

\[\text{ROA} = \text{Return on Assets}\]

VI. **DATA ANALYSIS AND FINDINGS**

One research question and a hypothesis were developed to guide the analysis on this study. The research question aims at examining whether the independent variables in the study had significant influence on the dependent variable. Hypothesis:

“H0: There is a significant influence of the independent variables (liquidity, tangibility and size) on (ROA).

Ha: There is no significant influence of the independent variables (liquidity, tangibility and size) on (ROA).”

**Descriptive statistics**

Descriptive statistics of Return on assets, liquidity, tangibility and size was computed. The analysis was as shown in table below.
Analysis shows that descriptive statistics of the Dependent variable (ROA) and the independent variables used in the study (Liquidity, Tangibility and size of the Insurance Company).

**Model Summary**

Model summary statistics gives us an overview of the significance of the model in terms fitting the variables given. Table 4.2 reports the summary of the model used in this study.

**Table 2: Model summary table**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.953487</td>
</tr>
<tr>
<td>R Square</td>
<td>0.909138</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.840991</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.256901</td>
</tr>
</tbody>
</table>

The coefficient of determination $R^2 = 0.909$, according to the study. This means that the liquidity, tangibility, and size of a life insurance firm explained 90.9 percent of the difference in return on assets.

**Test Results**

The model summary and the correlation analysis already gave insights of the relationship of the factors highlighted and profitability of the insurance companies. Return on assets was used as a measure of profitability since it reports the total earnings when the assets of the company are well utilized. Return on assets (ROA) therefore, was the dependent variable in this study. Liquidity, tangibility and size were all independent variables and they were continuous enabling carrying out multiple regression. The analysis of variance (ANOVA) test was reported in table 4.3 to aid in decision making.

**Table 3: ANOVA test**

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3</td>
<td>2.641414</td>
<td>0.880471</td>
<td>13.3409</td>
<td>0.015003</td>
</tr>
<tr>
<td>Residual</td>
<td>4</td>
<td>0.263992</td>
<td>0.065998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>2.905405</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The model was not statistically significant where $F (3, 4) = 13.3409, p = 0.015$, which is less than 0.05 hence the model was statistically significant at 0.05 significant level. This meant that the combination of the factors in the study have an impact on profitability of an insurance company. The model in the study was significant with only a margin error of 0.015. Coefficients were tested to enable singling out a factor that may have an impact on profitable on its own as shown in the table below.

**Table 4: Coefficient Table**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.041809</td>
<td>0.143127</td>
<td>-.292</td>
<td>.78</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-.3.12419</td>
<td>2.614753</td>
<td>-1.19</td>
<td>.29</td>
</tr>
<tr>
<td>Tangibility</td>
<td>3.005681</td>
<td>1.099768</td>
<td>2.733</td>
<td>.05</td>
</tr>
</tbody>
</table>
Correlation analysis was determined to check the association and significance of the variables in the model as shown in the table below.

**Table 5: Correlation analysis**

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>LIQUIDITY</th>
<th>TANGIBILITY</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.713*</td>
<td>.858**</td>
<td>.623</td>
</tr>
<tr>
<td>ROA Sig. (2-tailed)</td>
<td>.031</td>
<td>.003</td>
<td>.073</td>
<td></td>
</tr>
<tr>
<td>LIQUIDITY Pearson Correlation</td>
<td>.713*</td>
<td>1</td>
<td>.951**</td>
<td>.986**</td>
</tr>
<tr>
<td>LIQUIDITY Sig. (2-tailed)</td>
<td>.031</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>TANGIBILITY Pearson Correlation</td>
<td>.858**</td>
<td>.951**</td>
<td>1</td>
<td>.890**</td>
</tr>
<tr>
<td>TANGIBILITY Sig. (2-tailed)</td>
<td>.003</td>
<td>.000</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>SIZE Pearson Correlation</td>
<td>.623</td>
<td>.986**</td>
<td>.890**</td>
<td>1</td>
</tr>
<tr>
<td>SIZE Sig. (2-tailed)</td>
<td>.073</td>
<td>.000</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

Drawing conclusion from the correlation table shown above, Liquidity and Tangibility have strong relationship with ROA. There is also strong relationship between the independent variables with each other at 95% confidence level. We therefore conclude that Liquidity is a determinant of profitability since its significant at 0.05 with a correlational value of 0.713 indicating a very strong relationship. Tangibility is also significant at 0.05 with a strong correlation of 0.858 hence it influences life insurance companies’ profitability positively. There was also strong correlation between the size of the insurance company and profitability (0.623) though not significant at 0.05 as the p-value was 0.073 > 0.05 at 95% confidence level.

**VII. CONCLUSION**

Using a multiple linear regression equation analysis, the drivers of profitability of insurance businesses operating in India were investigated in this research. The parameters investigated in the investigation were liquidity, tangibility, and the scale of the firm in terms of the number of agents in each state. The results of the study indicated that the combination of liquidity, tangibility, and business scale in terms of number of agents in all states had an impact on life insurance company profitability in India. These suggests that life insurance companies in India should offer diversified range of insurance covers to enhance their profitability. The insurance companies used in the study should also aim at keeping high liquidity to enable them to pay claims and win bids easily as this will help in creating them a positive reputation in the competitive market which in turn will increase their return on asset hence profitability.

The sample can be increased in the future research in order to increase the accuracy of the analysis and increase the confidence in generalization of the findings. This analysis focused on life insurance companies only and inclusion of general insurance companies can shift the decisions effectively.

**REFERENCES**

[17] Economic Research Department, Bank of Greece
[20] Commerce and Management, 2(12), 1-18