# A Comparative Analysis of Liquidity of Public And Private Sector Health Insurance Companies In India

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# Abstract

The health insurance market in India is one of the fastest growing divisions of the insurance business, but there are a number of challenges that insurance companies, policyholders, third-party administrators, hospitals, and other stakeholders are facing. Insurance companies in India have higher claim pay-out percentages, however Indian clients are less conversant with basic health insurance concepts. To sustain a healthy growth rate, health insurance companies must improve the service they give to their subscribers. As a result, the goal of this study is to analyze the financial performance and liquidity of public and private sector health insurance organizations in India. United India Insurance corporation Limited, a public-sector corporation, and Apollo Munich Health Insurance firm Limited, a private-sector firm, both want to improve their liquidity. As a result, liquid plays an important role in the smooth operation of these firms and achieving payment deadlines.

Keywords: Financial Performance, Public and Private sector companies, Liquidity, health insurance etc.

# INTRODUCTION

People are increasingly vulnerable to uncertainty as a result of fast economic and industrial growth. More formal methods are necessary to offset losses caused by undesirable events. No one can predict the unpleasant scenario or the amount of loss that will occur, but he or she may cope in the present by getting insurance. Being diagnosed with a disease and needing to be hospitalized may be a difficult experience. A health insurance coverage can cover these costs to a significant extent. The well-to-do sector of the population, both rural and urban, accepts and can afford medical treatment.

Because these shifts in the environment and society are beyond human control, more formal measures are required to reduce losses caused by events such as the death of a family's primary member, loss of income due to death or health problems, loss of property, unemployment in old age, and so on. Nobody can foretell the unfavorable circumstances or the amount of loss that will occur in the future, but they may plan for it now by purchasing insurance to cover potential losses. Insurance is a written contract between two parties for a consideration (premium) to pay a certain sum of money if an unpleasant scenario develops. It is a means of transferring risk from one policyholder to other policyholders of the same organization. In 2001, India's insurance business opened up to private and international players. Privatisation of the insurance industry resulted in competition between life and non-life insurance businesses. The monopoly of public sector insurance businesses in the industry was decreased during a twenty-year period. As a result, this research is

being conducted to investigate the financial health of public and selected private sector health insurance firms in India.

Section 2 (6C) of the Insurance Act of 1938 defines "health insurance business" as the execution of contracts that provide for sickness benefits, medical, surgical, or hospitalization benefits, in-patient or outpatient, trip insurance, and personal accident insurance, among others. In a narrow sense, insurance for healthcare refers to a person or group that pays a premium in advance to obtain health care coverage; in a broader sense, it refers to any arrangement that assists consumers and their families in deferring, delaying, reducing, or completely avoiding compensation for health care. We shall adopt this notion since it is applicable in the Indian setting.

The health insurance industry in India is fairly restricted, covering just around 10% of the entire population. Certain industries in India, such as railways, the army, and central government personnel, are covered. Some wealthy countries devote as much as 6% to 8% of their GDP to healthcare. The rising medical expenditures are attributable to enhanced diagnostic and treatment methods. An insurance policy will ensure that no concessions are made in your treatment due to a lack of cash. Before requesting the finest health insurance quotation or deciding to purchase a health insurance plan, become an informed customer. It is now necessary to monitor how private and public sector insurance businesses may continue and conduct business, as well as to investigate their expansion, profitability, and market share in such a competitive climate. As a result, it is evident that the financial performance of Indian health insurance firms must be assessed.

# **REVIEW OF LITERATURE**

Bawa and Chattha (2013) sought to evaluate the financial performance of Indian life insurers using a variety of metrics. To measure it, several financial ratios were created, taking into account the insurance players' liquidity, solvency, profitability, and leverage. In general, performance may be measured by comparing the profitability of firms and insurers. To reach this goal, the research examines the influence of liquidity, solvency, leverage, size, and equity capital on the profitability of life insurers in India. This study's sample consists of 18 Indian life insurers (one public and 17 private), and the data spans five years, from 2007-08 to 2011-12. The study used various linear regression models to assess the extent to which these characteristics have an influence on life insurers' profitability. The study's findings show that liquidity and scale have a beneficial influence on life insurance profitability while capital has a negative impact. Profitability has no correlation with solvency or insurance leverage.

Showket Ahmad Dar, Ishfaq Ahmad Thaku (2015) Given the high risk nature of insurance businesses and rising suspicion about how organizations in this sector operate, it is necessary to examine and compare the financial performance of public and private non-life insurance companies operating in India. This article presents and discusses a collection of ratios that can help with the examination of a non-life insurer's financial and analytical returns. Three factors from the CARAMEL model were used to analyze and assess the financial performance of selected public and private non-life insurance companies. The indicator is "Liquidity," and the ratio of quick assets to current obligations has been scientifically evaluated. The statistical examination of liquidity ratios demonstrates that both public and private insurers lack a high level of liquidity, and none of the insurers under consideration appear to have adhered to the standard of 100 percent liquidity ratio.

Sinha R.K. (2018) sought to examine the presentation of RSBY from the perspectives of value and efficacy, with a focus on the interest side concerns. The analysis reveals that RSBY did not have the opportunity to properly establish care-chasing among the selected family units. It has also failed to reduce the prevalence of CHE among both chosen and enrolled families who have been hospitalized. From a value standpoint, hospitalization was virtually minimal, even among enrolled families from financially

disadvantaged locations. In contrast, the prevalence of CHE was unusually high among them. Furthermore, the initiative effectively increased the frequency of wellbeing consumption, causing impoverishment among the enrolled families that were APL before promoting wellbeing usage. This demonstrates that RSBY has not performed effectively in improving overall care seeking, lowering the weight of CHE, or reducing wellbeing consumption-induced neediness.

Lakshmanna et al. (2019) performed research on chosen general insurance businesses to assess insurance premium patterns, claim settlement procedures, and company performance. A percentage study of the insurance premiums received by both public and private sector insurance organizations revealed a considerable increase from 13.55% to 24.29% between 2011 and 2013, which then reduced to 13.42% in the year 2018. The average growth rate (AGR) for the years 2010 to 2018 was 13.85%. After the research was completed, it was discovered that public sector general insurance companies needed new and creative products to compete with their private counterparts. It was recommended that IRDA, as the industry's regulatory authority, develop common standards and benchmarks that both public and private sector participants would adhere to.

Gyanendra B. S. Johri (2020) examined the firm's financial performance in the twenty-first century during a 10-year period from 2010 to 2019. This study is based on secondary data, and the methodologies employed include ratio analysis and CAGR. The analysis results demonstrate that there were no significant changes in the agency's financial performance over the research period; rather, the growth rate was rather moderate, but it never decreased or reached a significantly lower level. This indicates that the agency is aiming to expand its business while still preserving cost effectiveness. A number of insurance firms are attempting to enter or are in the process of establishing themselves in the industry, but they have been unable to significantly disrupt LIC's 50-year dominance.

Madan Mohan Dutta (2020) underlined the relevance and expansion of the health insurance sector in the context of the broader growth of the general insurance industry. The major goal is to use regression analysis to determine the number of claims, commissions, and administration expenditures incurred in order to earn a specific amount of premium. A link was discovered between profit/loss and health insurance premiums earned. He received secondary data from the website of the insurance regulation and development body. The author of this study concluded that there is a strong association between earned premium and underwriting loss. However, there has been a surge in premium profits, which, rather than generating profit for the industry, has increased underwriting loss over time. The earnings are increasing at a compound annual growth rate (AGR) of 27%, yet the company is unable to generate an underwriting profit.

Sílvia Garcia-Mandicó, Arndt Reichert. Christoph Strupat (2021) utilized the introduction of national health insurance in Ghana to evaluate the cushioning impact of coverage on the financial repercussions of health shocks and the associated changes in coping strategies. We see a significant reduction in medical costs, preventing households from reducing non-food spending and resulting in a fall in the volume of received remittances as well as the labor supply of healthy adult household members. Furthermore, the authors presented evidence that the insurance program lowered the possibility that households facing a health shock would pull their children out of school to work. Avoiding such costly coping techniques might contribute significantly to the social benefit of formal health insurance.

Babita Yadav et al. (May 2022) examined the performance of Indian health insurance firms in their paper "Critical Performance Analysis of the Health Insurance Sector in India during the Covid-19 Outbreak". The authors investigated many performance criteria, including gross premium growth, incurred claims in relative terms, and gross premium, claims incurred, and number of policies in absolute terms. It was decided that there was an increase in both gross premium growth and incurred claims, resulting in a very minor change in the net premium. It was also determined that a Universal Health Scheme in India is essential to increase access to health care.

Kalyani Gorti (2023) examines the performance of a few health insurance businesses in India. The current analysis considers New India Assurance business Ltd, a public sector business, ICICI Lombard, and Star Health and Allied Insurance Company Ltd. The data for the study is acquired from secondary sources such as company annual reports, IRDAI, and numerous research publications published in journals. Earning ratios such as Gross Premium Growth Rate, Net Retention, Incurred Claims, and Expense ratios are used to analyze performance, whilst liquidity ratios and solvency criteria are used to assess the overall situation of the selected organizations during the previous twelve years, from 2010-11 to 2021-22.

Shahid Husain et al., (2024) want to assist potential policyholders in selecting a growing life insurance to assure the safety of their premium money and an improved bonus at the time of maturity or claim. Furthermore, the current study may give beneficial recommendations for newly established private sector enterprises in the market. The present research focuses on Private Sector Life Insurers, encouraging them to learn from the Public Sector's constant and smooth development in profitability and seek solutions. This report also analyzes the investment profitability and profit analysis of private and public sector insurance businesses operating in India. The results revealed an increase in the volume, revenue, and yield of investment in both the public and private sectors, but there was no substantial difference in investment between the two. Private sector life insurance businesses can develop by following the public sector's growth and consistency patterns. The study is particularly relevant to India, but the conclusions and findings may also be applied to other life insurance firms operating in other nations.

Spoorthy Reddy M, and Michael Yuivamung Zimik. (2024) want to extensively investigate the elements that influence the financial success of commercial and public life insurers in India. Descriptive statistics emphasize differences in mean values between the selected variables, emphasizing their importance in influencing financial success. Correlation analyses suggest minimal connections between variables, however regression analyses show that current ratio and size have a considerable influence on profitability. Notably, public and private insurers differ in terms of return on equity and expense ratio, but there is no substantial variation in return on assets. The findings give actionable insights for insurance practitioners, including advice on increasing profitability by focusing on liquidity and staff size. The findings reveal the most important profitability drivers for life insurers in today's market. Regulatory agencies can use these findings to promote a healthy competitive environment among Indian life insurance providers.

Chokroborty et al. (2024) investigated the influence of liquidity management on profitability in public and DSE-listed private sector banks and compared the results. The analysis section of the paper examines the state of liquidity management prior to 2018 and determines the link between liquidity and profitability of public and private sector banks. The link between liquidity and profitability is assessed using a regression model that first considers return on assets as the dependent variable and all liquidity measures as independent variables. It has been shown that DSE-listed private sector banks are more effective in liquidity management than public sector banks in Bangladesh. Because DSE-listed private sector banks manage their liquidity functions so efficiently, their profitability is unaffected. On the other hand, public sector banks must enhance their liquidity management performance in order to manage liquidity and profitability while remaining competitive with Bangladesh's DSE-listed private sector banks.

# **OBJECTIVES OF THE RESEARCH**

The main objective of this study is to examine liquidity of public and private sector health insurance companies in India.

# **HYPOTHESIS**

**H01:** There is no significant difference in the liquidity of public and private sector health insurance companies.

# **METHODOLOGY**

Liquidity Ratio: The ratio identified the vulnerability to loss resulting from forced sale of illiquid assets. The formula for computing this ratio is:

$$Liquidity \ ratio = \frac{current \ assets}{current \ liabilities} \times 100$$

Liquidity crises may be catastrophic in businesses with short-term obligations; similarly, for non-life insurers, the ratio is an essential measure that compares current assets to current liabilities.

Liquidity is defined as an insurer's ability to satisfy its commitments to pay costs and claims without diminishing operational income or selling assets. The liquidity ratio is defined as the quantity of current assets divided by current liabilities. In other words, it relates to the insurer's ability to meet its existing commitments or obligations with current assets.

The survey included health insurance companies from both the public and commercial sectors. The research looked at the top four commercial sector health insurance providers based on market share, as well as four public sector health insurance organizations.

Selected public sector organizations include United India Insurance Company Limited (UIICL), National Insurance Company Limited (NICL), Oriental Insurance Company Limited (OICL), and New India Assurance Company Limited (NIACL).

Selected private sector organizations are Star Health & Allied Insurance Company Limited (STAR), Apollo München Health Insurance Company Limited (APOLLO), Religare Health Assurance Companies Limited (RHICL), and Max Bupa Health Assurance Company Limited (MBHICL).

#### **ANALYSIS**

Table 1 displays information on the liquidity ratios for all firms. In the case of public sector firms, NIACL showed an upward trend in the ratio, showing a strengthening of its capacity to satisfy its current liabilities with current assets.

The liquidity ratio was 59.3 percent in 2012-13, increased to 71.3 percent the following year, and then exhibited a wavy pattern in the years that followed, reaching 63.9 percent in 2017-18.

Type of	Insurer	2012-	2013-	2014-	2015-	2016-	2017-	2018-	2019-	2020-	2021-		Mean	SD	Rank
sector		13	14	15	16	17	18	19	20	21	22	23			
Public	UIICL	31.9	35.5	38.8	30.1	31.9	28.1	33.3	34.4	26.0	28.7	28.4	31.5	3.8	8
	NICL	36.9	33.9	113.8	106.5	84.2	81.7	22.5	20.5	19.2	98.1	98.8	65.1	38.3	1
	OICL	28.7	28.4	47.1	36.6	30.5	59.0	16.0	17.0	16.6	98.8	99.1	43.4	30.4	4
	NIACL	59.3	68.8	71.3	65.3	69.4	63.9	56.6	56.3	49.8	45.1	39.4	58.7	10.5	2
	Mean	39.2	41.6	67.8	59.6	54.0	58.2	32.1	32.0	27.9	67.7	66.4	49.7		
	SD	13.8	18.4	33.6	34.8	27.0	22.3	17.8	17.9	15.1	36.18	37.8	25.0		
Private	STAR	46.8	38.3	27.5	34.3	39.9	38.5	37.1	35.6	33.5	36.0	35.0	36.6	4.7	5
	APOLLO	39.3	39.1	32.2	35.1	34.4	37.4	35.8	36.5	34.2	31.6	0.0	32.3	11.0	7
	RHICL	27.3	33.3	34.4	26.0	28.7	28.4	47.1	36.6	30.5	39.0	45.5	34.3	7.2	6
	MBHICL	46.2	56.6	56.3	49.8	45.1	39.4	37.4	38.7	35.0	36.6	38.3	43.6	7.8	3
	Mean	39.9	41.8	37.6	36.3	37.0	35.9	39.4	36.9	33.3	35.8	29.7	36.7		
	SD	9.1	10.2	12.8	9.9	7.1	5.1	5.2	1.3	2.0	3.0	20.3	7.8		

**Table 1: Liquidity Ratio of selected companies (in %)** 

On the other hand, for UIICL, the ratio climbed progressively from 31.9% in 2012-13 to 38.8% in 2014-15 before gradually declining to 28.1% in 2017-18. The downward trend in the case of UIICL illustrates

the fact that the firm's current liabilities have increased over the research period, resulting in a progressive decline in the ratio, which may cause a liquidity crisis for the company to satisfy its short-term commitments. According to table 1, the private sector appears to be operating on substantially lower margins, exposing the corporation to serious liquidity challenges. For MBHICL, the ratio was 46.2% in 2012-13, grew to 56.6% the following year, and then steadily declined to 39.4% in 2017-18, indicating a growth in current liabilities over the time. On the other hand, RHICL's margins remained lower, with a liquidity ratio of 27.3% in 2012-13, which climbed in the next two years with an increase in current assets before declining as current liabilities climbed, and the ratio was 28.4% in 2017-18.

The liquidity ratio was highly healthy since the current assets to support current debt were quite healthy and the enterprises were able to fulfill their commitments without issue. In the instance of STAR Company, the ratio was a high 46.8 percent in 2012-13, gradually declining to 27.5 percent in 2014-15, and then improving to 39.9 percent in 2016-17 with a rise in current commitments, eventually reaching 36.0 percent in 2021-22. Higher liquidity ratios also indicated idle funds that might be invested. An ideal ratio of 1:1 is always regarded as enough for corporate liquidity. However, in the instance of APOLLO, the ratio was 39.3 percent in the first year with little present responsibilities to satisfy. The percentage gradually decreased to 32.2% in 2014-15, then increased to 37.4% in 2017-18.

NICL had the highest mean score of 65.1 percent and thus ranked first, followed by NIACL, MBHICL, OICL, STAR, RHICL, APOLLO, and UIICL, which had mean scores of 58.7 percent, 43.6 percent, 43.4 percent, 36.6 percent, 34.3 percent, 32.3 percent, and 31.5 percent, respectively, during the study. In other words, the firms' liquidity management techniques differed significantly. While public sector corporations were conservative in their tactics, private sector companies were far more active.

Null t-Sl. No. P-value Group Count Mean SD df value **Hypothesis** 1. Pu.SHICs 4 546.50 166.30 6 1.635 0.154 Accepted 4 2. Pr.SHICs 403.60 50.10

**Table 2: t-Values of Liquidity Ratios** 

Source: Annual reports of the companies.

Table 2 describes the t-test findings for Liquidity Ratios. The table shows that the p value (0.154) is larger than the crucial threshold (0.05). It is concluded that there is no substantial variation in the Liquidity Ratios of Public and Select Private Sector Health Insurance Companies during the course of the study. Therefore, the null hypothesis is accepted.

### **FINDINGS**

NIACL's liquidity ratio was 59.3 percent in 2012-13, increased to 71.3 percent the following year, and then exhibited a wavy pattern in the years that followed, reaching 63.9 percent in 2017-18. The UIICL ratio, which was 31.9% in 2012-13, progressively grew to 38.8% in 2014-15 before gradually declining to 28.1% in 2017-2018. The ratio for MBHICL was 46.2% in 2010-1, climbed to 56.6% the next year, and then steadily declined to 39.4% in 2017-18. NIACL's liquidity ratio was 59.3 percent in 2012-13, increased to 71.3 percent the following year, and then exhibited a wavy pattern in the years that followed, reaching 63.9 percent in 2017-18. The UIICL ratio, which was 31.9% in 2012-13, progressively grew to 38.8% in 2014-15 before gradually declining to 28.1% in 2017-2018. The ratio for MBHICL was 46.2% in 2010-1, climbed to 56.6% the next year, and then steadily declined to 39.4% in 2017-18. The mean scores for NICL were the highest, at 65.1%, and they are listed. During the research period, NIACL, MBHICL, OICL, STAR, RHICL, APOLLO,

and UIICL had mean scores of 58.7 percent, 43.6 percent, 43.4 percent, 36.6 percent, 34.3 percent, 32.3 percent, and 31.5 percent, correspondingly.

# **CONCLUSIONS**

The United India Insurance Company Limited ranked first among public sector health insurance firms in terms of financial results, followed by the National Insurance Company Limited, New India Assurance Company Company Limited, and Oriental Insurance Company Limi. The liquidity ratio model was used to evaluate coverage companies in the healthcare sector, and there was no significant difference between the public and private sectors. Throughout the study, Max Bupa Health Insurance Company Limited ranks first in terms of financial performance (liquidity) as compared to other private sector health insurance businesses, and followed by Star Health & Insurance Company Limited, Religare Health Risk management Company Limited, and Apollo Munich Health Insurance Company Limited.

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