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Benchmarking Financial Resilience: A Composite Evaluation of Indian Private Non-Life Insurers using the WAR Method and IRDAI Framework

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Abstract

The Indian private non-life insurance sector has expanded rapidly in the post-liberalisation period, leading to intensified competition, technological innovation, and increased regulatory focus on financial stability. In this regard, the current research intends to measure financial soundness of the non-life Indian based private non-life insurance companies based on their composite and regulator-consistent assessment structure. The study will analyse secondary time-series data of 24 private non-life insurance companies between 2012 and 2023, but will not include Navi General Insurance Limited because of the lack of historical data. Performance assessment is done using sixteen financial ratios as prescribed in the IRDAI Master Circular, which depicts growth, underwriting efficiency, profitability, liquidity, expense management and solvency. To stabilise short-term volatility mean values are calculated, subsequently individual ratio-wise ranking are assigned and Weighted Average Rank (WAR) method was applied to derive a unified composite score for each insurer. The empirical outcome indicate that those insurers who exhibit balanced results on regulatory dimensions end up with better resilience classification, and Shriram General Insurance, Bajaj Allianz General Insurance, and ICICI Lombard General Insurance are the best in their performance. Conversely, the low-ranking insurers (such as Zuno and Acko General insurance company) illustrated a relative disequilibrium in the selection of the financial parameters, making it necessary to enhance capital sufficiency and operation discipline. The study contributes to the literature on the insurance performance by including regulation ratios by using the composite benchmarking model and understanding of regulators, insurers, investors and policyholders in improving the stability within the industry and prudent decision making.

Keywords: Weighted Average Rank (WAR), IRDAI Framework, Financial Resilience, Composite Performance Evaluation.

1. Introduction

The non-life insurance sector plays an indispensable role in the financial architecture of an economy by providing risk protection, promoting financial stability, and supporting sustainable economic growth. Over the last two decades, the private sector non-life insurance sector in India has undergone a lot of change given the liberalization, competitive market forces, high rate of technology enhancement and regulatory changes by the Insurance Regulatory and Development Authority of India (IRDAI). This has not only resulted in increased market penetration and product diversification, but also created a greater impetus to ensure a strong financial resiliency to operational uncertainties that are under management, fluctuating claims and macro-economic factors.

Financial resilience in the insurance sector extends well beyond short-term profitability. It includes the capacity of an insurer to attain sustainable development, maintain sufficient solvency, mitigate underwriting exposures effectively, oversee operations costs and provide liquidity to finance policyholder claims. Conventional performance measurement methods have tended to rely on individual financial measures or profitability measures, which give us an incomplete picture of the financial soundness of insurers. Nevertheless, as regulatory scrutiny extends and the new dimensions of risk, including the digital transformation, the concept of climate-uncertainties and economic volatilities reveals the growing and evolving need of a composite and regulator-fitting assessment framework to reflect the multidimensional aspects of financial outcomes.

In this regard, the current research suggests the systematic benchmarking method based on the Weighted Average Rank (WAR) Method coupled with the financial ratios prescribed by IRDAI. The WAR approach combines various performance measures into one composite measure through systematic weighting due to the regulatory significance, theoretical relevance and practice in the industry. The methodology gives balanced and comparative assessment of the insurers on the key pillars of development, financial performance, profitability, underwriting efficiency, liquidity management and solvency position. This can be used to align performance measurement with supervisory standards as opposed to basing performance measurement on traditional financial measures.

The research focuses on the Indian market of private non-life insurance companies, which is marked by a fast market growth, digital transformation, and increased competition. By embracing standardised ratio structure and composite ranking method, the study will be seeking to index the comparative financial strength of these insurers and pinpoint trends of equal or unequal performance across regulatory aspects. This

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analytical work does not only inform academic literature on the insurance performance measurement but also provides practical information to the stockholders, investors, policyholders and regulators.

In general, this study frames financial resilience as a multidimensional concept that can be best analysed using an analytical framework. The paper aims to offer an opportunity to benchmark the financial soundness of Indian private non-life insurers using a structured, transparent, policy-relevant framework and as such, to help make informed decisions and stability over the long-term of the Indian insurance industry.

2. Literature Review

The review of literature helps to gain a comprehensive understanding of previous studies and research. It helps identify existing knowledge, theoretical frameworks, and research gaps. The review provides a basis to the current research because it examines both the national and international research. The traditional financial ratio analysis has been implemented in a large amount of Indian literature in an effort to assess the performance of non-life insurance companies. Primary studies in the past like Sharma (2005), Sivakamy (2009), Kumar (2009), Rao (2010), and Baanu (2011) were on mostly the general insurers of the public sector using the ratios based on profitability, liquidity, premium growth, claims, and expenses. Subsequent research by Bhattacharya (2012), Dar and Thakur (2014), Gupta and Singh (2022), and Kumar and Kumar (2022) applied ratio analysis to the public and private insurers and investigated such indicators as claim ratio, expense ratio, combined ratio, ROA, ROE, and solvency-related indicators. These researches determined that claims management, cost control and underwriting discipline have a critical impact on the financial performance. Most of the studies however, have been using traditional financial ratios and not the regulator prescribed IRDA Master Circular ratios, thus restricting their relevancy in regulation.

A number of studies that were done by Darzi (2009), Kumar (2010), Varma (2012), Sharma (2012), Subramani (2013), Dar and Thakur (2014), and Kaur (2014) were comparative studies carried out between non-life insurance companies in the public and private sectors. The general findings of these studies are that the growth rate, operational flexibility and customer orientation of the private insurers are higher, whereas the public insurers enjoy the benefits of market coverage and investment revenues. More recent research (Sasidharan *et al*., 2020; Kumar and Verma, 2021) confirms that insurers in the private sector are more likely to be efficient in terms of underwriting, and that public insurers partially offset losses by collecting investment income.

There is an increasing body of journalism recognizing the use of sophisticated econometric and efficiency models, including DEA, SFA, and panel regression to determine correlates of financial performance. The works by Joo (2013), Sinha (2017), Sasidharan *et al*. (2020), Upadhyay and Sitlani (2022), and Sharma and Sharma (2023) indicate that the profitability of insurance companies is dependent on claims ratio, expense ratio, premium growth, underwriting results, and management efficiency. It is also concluded through strong support that the financial results in non-life insurance are overridden by underwriting performance and operational efficiency and that investment income stabilizes but remains a secondary factor (Murigu, 2014; Oner Kaya, 2016; Lee and Lee, 2019; Chen and Wong, 2020; Morara and Sibindi, 2021; Msomi, 2023; Erdemir, 2023; Karki, 2025). Though methodologically sound, such studies are mostly determinant in nature, and fail to follow a regulatory ratio framework that is in line with the supervisory norms like those provided by IRDAI.

Regulatory-focused studies are relatively limited. Joo (2013) and IRDAI Annual Reports (2023–24) emphasize the importance of solvency margins, claims ratios, and underwriting discipline for financial stability. IRDAI reports provide aggregate industry-level indicators, but do not offer company-level comparative ratio analysis of private non-life insurers.

Recent research, which uses the method of with the help of the Grey Relational Analysis, proves the utility of multi-criteria ratios-based ranking (Oner Kaya, 2016; Sachan, 2023; Karki, 2025); still, in these studies, the sets of ratios are not regulatory ones. Therefore, among the growing regulatory scrutiny, a minimal number of academic researches apply the financial ratios prescribed by IRDA Master Circular as the main analytical tool.

Limited studies isolate private non-life insurers and evaluate those comprehensively using IRDAI-prescribed ratios. This study addresses this gap by applying a standardized WAR framework to all private non-life insurers in India.

3. Research Methodology

3.1. Study Area: In the current research, the explanatory and comparative analytical approach is used with reference to the non-life insurance sector in India. The entire procedure of conducting the research has involved all the Indian based non-life insurance companies, other than Navi General Insurance Limited, because it was registered in 2020 and does not fit into the period of research. Therefore, the total study area comprises 24 private non-life insurance companies operating across India.

Table 1: List of Private Non-life Insurance Companies in India

1.	Acko General Insurance Ltd.
2.	Aditya Birla Health Insurance Co. Ltd.
3.	Bajaj Allianz General Insurance Co. Ltd.
4.	Care Health Insurance Ltd.
5.	Cholamandalam MS General Insurance Co. Ltd
6.	Future Generali India Insurance Co. Ltd
7.	Go Digit General Insurance Ltd.
8.	HDFC ERGO General Insurance Co. Ltd.
9.	ICICI Lombard General Insurance Co. Ltd.
10.	IFFCO Tokio General Insurance Co. Ltd.
11.	Kotak Mahindra General Insurance Co. Ltd.
12.	Liberty General Insurance Ltd.
13.	Magma HDI General Insurance Co. Ltd.
14.	ManipalCigna Health Insurance Co. Ltd.
15.	Niva Bupa Health Insurance Co. Ltd.
16.	Raheja QBE General Insurance Co. Ltd.
17.	Reliance General Insurance Co. Ltd.
18.	Royal Sundaram General Insurance Co. Ltd.
19.	SBI General Insurance Co. Ltd.
20.	Shriram General Insurance Co. Ltd.
21.	Star Health & Allied Insurance Co. Ltd.
22.	Tata AIG General Insurance Co. Ltd.
23.	Universal Sompo General Insurance Co. Ltd.
24.	Zuno General Insurance Ltd.
25.	(Excluded from study: Navi General Insurance Ltd.)

3.2. Analytical Framework

i). **Collection of Data:** The analysis is anchored on the systematic analysis framework by utilizing secondary time-series data gathered on 24 privately owned non-life (general) insurance companies, which operate in India, assuming the availability of the data. The research timeline will be 2012-2023. The introductory year of the company in which the company did not reveal a full or stable financial information was left out in the analysis to secure the reliability and consistency of the data. The study has not considered Navi General Insurance Limited because of a lack of historical data. The focus of the study is completely on literature sources and is mostly obtained through the annual reports of the respective insurance companies and official publications of the Insurance Regulatory and Development Authority of India (IRDAI).

ii). **Selection of Performance Ratios:** A total of 16 financial ratios recommended by the IRDAI are considered. (Refer: Table 1 –Weight Allocation criterion).

iii). **Selection of Weights:** The ratio weightages are based on theoretical rationale and regulatory guidelines. It guarantees that the most important drivers of insurance company performance are focused on, profitability, solvency and operational efficiency are treated to greater weight but not too much, whereas metrics that facilitate expansion are treated with equal but not overemphasized attention.

Table 1: Weight Allocation Criterion

No.	Ratio	Weight	Justification
1	Gross Direct Premium Growth Rate (GDPGR)	0.06	Reflects business expansion; important, but not sufficient alone.
2	Gross Direct Premium to Net Worth Ratio (GDPNW)	0.05	Indicates risk exposure per unit of capital; moderate importance.
3	Growth Rate of Net Worth (NWGR)	0.06	Captures profitability + capital expansion; moderately important.
4	Net Retention Ratio (NRR)	0.05	Higher retention = higher assumed risk; relevant, but context-specific.
5	Net Commission Ratio (NCR)	0.04	Cost-related; less critical than profitability or solvency.
6	Expenses of Mgmt. to Gross Direct Premium Ratio (EMGDP)	0.04	Expense control is important, but secondary to profitability.
7	Expenses of Mgmt. to Net Written Premium Ratio (EMNWP)	0.04	Similar to above — complements overall expense management.
8	Net Incurred Claims to Net Earned Premium (NCNP)	0.06	Affects underwriting profitability directly; crucial in general insurance.
9	Combined Ratio (CB)	0.10	Most important underwriting profitability measure (expenses + claims); industry standard.
10	Technical Reserves to Net Premium Ratio (TRNPR)	0.05	Indicates adequacy of reserves; moderate regulatory relevance.
11	Underwriting Balance Ratio (UBR)	0.05	Core profitability indicator but partially overlaps with Combined Ratio.
12	Operating Profit Ratio (OPR)	0.08	Broader profitability measures include investment income.
13	Liquid Assets to Liabilities Ratio (LALR)	0.05	Liquidity measure; important for solvency, but less dynamic.
14	Net Earnings Ratio (NER)	0.07	Core profitability ratio; important for stakeholders and comparison.
15	Return on Net Worth (RNW)	0.10	Top profitability ratio; widely used in performance benchmarking.
16	Available Solvency Margin to Required Solvency Margin (ASM to RSM)	0.10	Critical solvency measure; top priority for regulators (IRDAI in India).

Source: *Authors' own work*

a) **Profitability and Efficiency Ratios:** Ratios such as the Combined Ratio**,** Net Incurred Claims to Net Earned Premium (Loss Ratio)**,** Operating Profit Ratio**,** Net Earnings Ratio**,** and Return on Net Worth (RONW) are given relatively higher weights (0.09–0.11). Profitability is the ultimate determinant of long-term sustainability in insurance, since insurers must balance underwriting results, claims management, and capital returns to remain viable. Cummins and Weiss (2014) highlight that insurers' systemic stability is primarily tied to underwriting profitability and capital adequacy, underscoring the centrality of profitability ratios in performance assessment. Similarly, Chen and Wong (2004) empirically show that profitability indicators, particularly return on equity and underwriting results, are strong predictors of financial strength in Asian insurance markets. These findings justify a marginal increase in the weight of profitability-related ratios.

b) **Solvency and Liquidity Ratios:** The Available Solvency Margin (ASM) to Required Solvency Margin (RSM) and Liquid Assets to Liabilities Ratio are assigned slightly higher weights (0.11 and 0.05, respectively). Solvency is a non-negotiable requirement in insurance, as it provides assurance that insurers can meet policyholder obligations even in stressed conditions. The Solvency II Directive (Directive 2009/138/EC) in Europe explicitly identifies solvency as the cornerstone of regulatory oversight, while the Insurance Regulatory and Development Authority of India (IRDAI) mandates a solvency margin of at least 150% of the required level (IRDAI, 2022). Moreover, Swiss Re Institute (2019) argues that insurers with weak solvency ratios are disproportionately vulnerable to systemic shocks, regardless of short-term profitability. Thus, enhancing the weight of solvency-related ratios improves the robustness of the evaluation framework.

c) **Growth Ratios:** There are also indicators such as Gross Direct Premium Growth Rate and Growth Rate of Net Worth which are significant in terms of capturing the business growth and their weights are a bit lower (0.05 each). Too much focus on growth may distort financial performance because a high level of premium growth usually goes hand in hand with higher insolvency risk (Harrington and Niehaus, 2004). Regulators and scholars warn that size or growth cannot be equated to stability because aggressive underwriting techniques may compromise solvency and profitability. Thus, as

significant measures that must be maintained, the growth ratios are kept at a moderate level to prevent exaggeration of the role.

d) Expense Ratios: The Expenses of Management to Gross Direct Premium Ratio and Expenses of Management to Net Written Premium Ratio get a slight increment (0.05 each). Cost management plays a crucial role in operational effectiveness particularly in the competitive insurance markets. According to Chen and Wong (2004), the effectiveness of the management has a strong impact on financial health especially in an emerging market. The framework achieves this by making sure that the operation inefficiencies are better reflected in the performance measurements by increasing their weights.

e) Underwriting Ratios: Its Underwriting Balance Ratio is slightly higher (0.06) which is indicative of its position as the direct indicator of underwriting discipline of an insurer. According to Cummins (1991), the fundamental driver of insurance operations is underwriting profitability and Swiss Re (2019) also emphasizes underwriting outcomes as the key driver of the long-term value creation in the insurance companies. A higher weighting improves the robustness of the model by ensuring that underwriting strength is not overshadowed by investment income or growth.

iv). Computation of Average Ratio Values: For each company, the simple arithmetic mean was calculated for each of the 16 ratios:

$$Average\ Ratio = \frac{\sum \text{Ratio Values across year}}{\text{No. of valid year}}$$

v). Ranking of Companies per Ratios: Each company is ranked individually on each of the 16 ratios. For positively oriented ratios (where a higher value indicates better performance Ratios: Sl. No 1–5, 8, 10–16), such as growth or profitability, higher values receive better ranks (i.e., Rank 1 is best). For negatively oriented ratios (where a lower value is preferable, such as expenses or combined ratio Sl. No 6, 7, and 9), lower values receive better ranks. Tied values are handled appropriately by assigning average ranks if needed.

vi). Computation of Weighted Average Rank (WAR): To arrive at a single composite rank per company, the Weighted Average Rank (WAR) method is applied. Each ratio's rank is multiplied by its pre-assigned weight (from Table 1), then summed across all 16 ratios:

$$WAR_i = \sum_{j=1}^{16} (R_{ij} \times W_j)$$

Where: R_{ij} = Rank of the *i-th* company on the *j-th* ratio and W_j = Weight assigned to the *j-th* ratio. This gives a single WAR score per company.

Based on WAR values, companies are ranked in ascending order: Lower WAR leads to Better performance which ultimately indicates higher final rank (i.e., Rank 1)

3.3. Calculation of Mean Ratio Values

In order to attain the purpose of the research the first procedure is the determination of Mean Ratio Value of each of the non-life insurers chosen. The IRDA master circular has set out fifteen main ratios, which jointly represent the various facets of the financial performance of the non-life insurance companies such as growth, profitability, efficiency, liquidity and solvency. These ratios are:

Table 2: Structure of Calculating Mean Ratio Values

S. No	Company	1. GDPGR	2. Gross Direct Premium to Net Worth Ratio	….	….	…	16. Available Solvency Margin (ASM) to Required Solvency Margin (RSM)
1	Acko General Insurance	0.52	1.70	….	….	…	2.58
2	Aditya Birla Health Insurance	1.46	2.93	….	….	…	1.56
3	Bajaj Allianz General Insurance	0.15	2.28	….	….	…	2.58
….	….	….	….	….	….	….	….
….	….	….	….	….	….	….	….
….	….	….	….	….	….	….	….
….	….	….	….	….	….	….	….
24	Zuno General Insurance Limited	10.32	1.41				1.88
Mean Ratio: Average Ratio $= \frac{\sum \text{Ratio Values across year}}{\text{No.of valid year}}$							

Source: *Authors' own work*

Table 2 presents the structure of calculating mean values of IRDA prescribed ratios. For example, three representative ratios: Gross Direct Premium Growth Rate, Gross Direct Premium to Net Worth Ratio, and Available Solvency Margin (ASM) to Required Solvency Margin (RSM). These ratios collectively measure the financial soundness, overall growth and solvency of insurers.

The mean ratio for each company was calculated using the formula:

$$Average\ Ratio = \frac{\sum Ratio\ Values\ across\ year}{No.of\ valid\ year}$$

This method helps to neutralize short-term fluctuations and provides a more consistent result over the study period. In the next step, the calculation of ranks on mean ratio values will be carried out to establish the relative financial performance position of each company, facilitating comparative assessment across the selected insurers.

3.4. Calculation of Ranks of the Mean Ratio Values

After calculating the Mean Ratio Values, the second step involves assigning ranks to each insurer to assess their relative financial performance under the IRDA-prescribed ratios. Table 4.2 is structured to calculate the ranks on mean ratios values for the 16 ratios undertaken.

Table 3: Structure of Calculating Ranks on Mean Ratio Values

S. No.	Company	1. GDPG Rate	Rank	2. GDPNW Ratio	Rank	….	…	16. ASM to RSM	Rank
1	Acko General Insurance	0.52	8	1.70	20	….	…	2.58	5
2	Aditya Birla Health Insurance	1.46	4	2.93	8	….	…	1.56	8
3	Bajaj Allianz General Insurance	0.15	21	2.28	17	….	…	2.58	2
….	….	….		….		….	….	….	
….	….	….		….		….	….	….	
….	….	….		….		….	….	….	
24	Zuno General Insurance Limited	10.32	1	1.41	23			1.88	9

Source: *Authors' own work*

Like the previous table, in Table 3 companies are ranked based on their mean values for key indicators. For example, companies are ranked for Gross Direct Premium Growth Rate (GDPG)**,** Gross Direct Premium to Net-worth Ratio (GDPNW**)**, and Available Solvency Margin to Required Solvency Margin (ASM to RSM) sequentially**.** A higher ratio value signifies better performance and is therefore assigned a higher rank position.

The original ranking was computed using the following Excel formula:

Rank = RANK(Y2,$Y$2:$Y$25,0)

This formula arranges all companies in descending order based on their ratio values, where the highest value is ranked 1. In next and final step we used WAR method for ranking.

4. Analysis and Discussions

Table 4 shows the end result of the empirical study, which reports the final score of the empirical analysis, which is the Weighted Average Rank (WAR) scores and the final ranks of the selected non-life Indian private insurance companies, respectively. This table is the final step in the benchmarking exercise, the ratio-wise performances of the insurers are summarized in one composite measure. The WAR method gives a well-balanced and regulator-sensitive evaluation of financial strength based on sixteen IRDAI-stipulated financial ratios, including profitability, solvency, liquidity, underwriting performance, cost control, and growth aspects. Reduced values of WAR translate to good and more stable financial performance thus they are ranked higher. The table, therefore, provides a comparative overview of relative financial capacity and sustainability of the non-life insurance companies operating privately to facilitate a systematic benchmarking in line with the purpose of the study, which is the assessment of the financial strength in the IRDAI regulatory environment.

The consolidated WAR scores further enhance the interpretative clarity of the analysis by transforming multiple financial indicators into a unified and comparable index without compromising the regulatory relevance of individual ratios. By incorporating weight allocations that reflect the relative importance of each IRDAI-prescribed parameter, the methodology ensures that critical aspects such as solvency adequacy and underwriting discipline receive appropriate emphasis in the overall evaluation. This structured aggregation reduces subjectivity and improves the robustness and transparency of inter-company comparisons across the study period. Additionally, the final rankings generate meaningful insights for regulators, policymakers, investors, and management by identifying leading performers, consistently stable firms, and relatively weaker entities within the private non-life insurance sector.

Table 4: Calculation of Weighted Average Rank and Final Rank

S. No	Company	WAR	Final Rank
20	Shirram General Insurance	7.7	1
3	Bajaj Allianz General Insurance	8.28	2
9	Cholamandalam Insurance	9.5	3
5	ICICI LOMBARD General Insurance	9.7	4
10	IFFCO Tokio General Insurance	9.73	5
23	Universal Sompo General Insurance Company	9.74	6
2	Aditya Birla Health Insurance	10.04	7
22	Tata AIG General Insurance	10.57	8
18	Royal Sundaram General Insurance	11.76	9
12	LIBERTY GENERAL INSURANCE LIMITED	13.22	10
13	MAGMA HDI General Insurance	13.5	11
8	HDFC ERGO General Insurance Company	13.69	12
21	Star Health and Allied Insurance	13.79	13
7	Future Generali India Insurance	13.97	14
17	Reliance General Insurance Company	14.37	15
19	SBI General Insurance	14.67	16
15	NIVA BUPA Health Insurance Co. Ltd.	15.36	17
6	Digit Insurance	15.48	18
16	Raheja QBE General Insurance	15.63	19
4	Care Health Insurance Limited	16.64	20
11	Kotak Mahindra General Insurance Co. Ltd	16.98	21
14	Manipal CIGNA Health Insurance	17.14	22
24	Zuno General Insurance Limited	17.57	23
1	Acko General Insurance	18.97	24

Source: *Authors' own work*

Based on Table 4, it may be concluded that the Weighted Average Rank (WAR) method is an effective composite benchmarking tool of evaluating the financial strength of the Indian private non-life insurers. Combining the scoring of the ranks achieved on all the sixteen financial ratios stipulated by IRDAI and modifying them with pre-set weights, the method creates a single composite score which characterizes the multidimensional insurer performance. This methodology ensures that each financial indicator contributes proportionately to the final outcome based on its regulatory and theoretical significance, thereby capturing a balanced view of growth capacity, profitability strength, liquidity position, operational efficiency, underwriting discipline, and solvency adequacy—the core pillars of financial resilience in the insurance sector.

The results of the rankings indicate that the Shriram General Insurance takes the first place, which means the relatively higher and stable performance according to the major regulatory and financial ratios. The next ones are Bajaj Allianz General Insurance and ICICI Lombard General Insurance, which is the sign of high managerial efficiency, sensible underwriting procedures, and secure capital structures. The case with insurers like Cholamandalam MS General Insurance or IFFCO Tokio general Insurance also reveal good resilience in terms of competitive stance holding positions in the upper end of the ranking spectrum. On the other hand, firms at the bottom range, including Acko General Insurance and Zuno General Insurance Limited indicate relatively lower composite with probability of improvement of the firm in selected financial aspects, especially where the financial aspect affects the solvency, profitability, or operational efficiency.

Overall the WAR-based analysis corroborates the main assumption of this study that financial sustainability within the private non-life insurance sector should be analysed within the framework of compound, regulator-oriented analysis instead of individual financial metrics. The results indicate that the composition of the ranking of insurers, whose performance has proven to be balanced in all the relevant parameters of the IRDAI, is likely to have better rankings, thus confirming the approach to the WAR as a consistent and systematic approach to benchmarking financial robustness in the Indian insurance sector.

4.1. Insights from the WAR Findings

The WAR analysis provides a composite benchmarking view of the financial resilience of private non-life insurance companies in India as opposed to a traditional performance benchmarking. The WAR score is the aggregate of the ranks of all sixteen financial ratios prescribed by IRDAI, which reflect the effectiveness of every insurer to maintain a balance between the fundamental dimensions of growth, profitability, underwriting efficiency, liquidity, and solvency which are commonly distinguished in insurance performance research as the determinants of financial strength (Cummins and Weiss, 2014; Chen and Wong, 2004). In the context of this study, a low WAR score would mean that the financial strength of the insurer is more stable, thus, the insurer acts consistently in the regulatory and operational parameters, but a higher score would denote a relative lack of balance or weakness in some financial aspects. In this way, the WAR framework matches the research objective of assessing resilience within the framework of regulator-oriented and multidimensional instead of focusing on isolated financial measures.

As the ranking results reveal, Shriram General Insurance, Bajaj Allianz General Insurance and ICICI Lombard General Insurance take the first, second and third place which reflects their relatively greater financial strength in the market of the personal non-life insurance. Their results signal to a moderated mixture of decent underwriting practices, good cost management and adequate solvency rates and a steady rise in premiums. This relative stability indicates that these insurers are not only economically efficient but structurally sound in fulfilling regulatory requirements and market risks- which are consistent with other results that show that underwriting discipline and capital adequacy are the keys to long-run insurers survivability (Cummins, 1991; IRDAI Annual Report, 2023-24). The upper category also represents such companies as Cholamandalam MS General Insurance or IFFCO Tokio General Insurance, which validates the fact that the balanced financial discipline in the context of a wide range of parameters makes it possible to establish the overall resilience.

On the other hand, the insurers that were found at the bottom in the WAR list, such as the Acko general insurance and the Zuno general insurance limited presents the comparatively lower composite score. The positioning might indicate greater focus on either of the rapid growth, digital penetration or innovation based strategies without corresponding increases in the strength of solvency, underwriting profits and cost-efficiency. Such findings point to one of the thematic conclusions of the research: balance among regulatory ratios leads to financial resilience, as opposed to predominance in one specific area of performance, which have already been reflected in the literature (Sasidharan *et al*., 2020; Upadhyay and Sitlani, 2022). In the context of the changing Indian insurance ecosystem, the results of the WAR form point at the fact that sustainable competitiveness must be based on the balance between growth initiatives and capital adequacy, operational efficiency, and regulatory compliance.

4.2. Implications for Stakeholders

The WAR-based benchmarking carries significant implications for various stakeholders within the insurance ecosystem.

- For insurance companies, the findings highlight that insurers need to operate at a balance between profitability, solvency, and operational efficiency instead of focusing on premium growth, which is confirmed by the global performance surveys which point out the relevance of balanced ratios as the means of sustainable insurer performance (Lee and Lee, 2019; Morara and Sibindi, 2021). Top-tier insurers are rewarded with disciplined financial management, and low-ranking firms are given a diagnostic signal that relates to the need of strategic improvement on areas like underwriting control, expense management, or capital adequacy.
- To policyholders, insurers that are financially strong present an improved guarantee of the prompt settlement of claims, service continuity and institutional stability which enhances consumer confidence within the industry. The existing literature ascertains that the stability of the insurers is directly correlated with better claim performance and customer satisfaction (Chen & Wong, 2004).
- To investors and analysts, the WAR framework is a structured decision support tool in that it identifies insurers that have exhibited financial healthiness over a number of regulatory indicators and not just the short term profitability. This is because composite indicators are becoming popular in financial analysis because of their capacity to minimize noise and give holistic insights (Öner Kaya, 2016; Msomi, 2023).
- To the regulator especially IRDAI the composite ranking model may serve as a complementary supervisory tool or a kind of early-warning system in identifying any developing financial strain so that the regulator may more effectively and comparatively regulate the activities of the private non-life insurers. This helps the regulator to fulfill his mandate in the IRDAI Act to make sure they are solvent as well as safeguard the interests of their policy holders.

4.3. Broader Market Implications

The Indian private non-life insurance market reflects a mixed and competitive structure, where long-established insurers operate alongside new and technology-driven entrants. This variety encourages innovation, more access to customers and

product diversity, though, also creates unequal financial ability and stability between businesses. The WAR analysis states that insurers that moderate profitability, solvency, and operational efficiency fare better on stability in the whole market and the result is consistent with international findings, which prove that diversified performance is linked to a low systemic risk (Lee and Lee, 2019; Morara and Sibindi, 2021). This is effectively offset by the fact that companies which focus much on fast premiums growth without strengthening their capital base or underwriting standards might face more financial risks during economic crunches or high claims periods. Therefore, the paper exposes that financial discipline and alignment of the regulators and growth is necessary to achieve sustainable development of the industry.

The findings of this research also carry several policy-level implications:

Strengthening Solvency Regulation: IRDAI can progressively shift towards the risk-based capital model, typically found in the world Solvency II guidelines, whereby every insurer is capitalized on the basis of its exposure to risk, and not on a standard basis. Internationally, risk-based frameworks have been found to enhance the capital adequacy and minimise the insolvency risk (IAIS, 2019).

Monitoring Rapid Digital Expansion: As digital and InsurTech-driven insurers expand quickly, The regulator need to ensure that emerging pricing schemes, distribution, and technological innovations do not weaken the solvency strength and underwriting discipline. This necessitates tighter regulation of capital adequacy, reliance on reinsurance and long-term sustainability of digital insurers a matter that is raised in recent regulatory texts on InsurTech risk (Swiss Re Institute, 2024).

As digital and InsurTech-driven insurers expand quickly, the regulator needs to ensure that innovations in pricing, distribution, and technology do not weaken solvency strength or underwriting discipline. This requires closer monitoring of capital adequacy, reinsurance dependence, and long-term sustainability of digital insurers a concern expressed in recent regulatory literature on InsurTech risk (Swiss Re Institute, 2024).

Encouraging Climate Risk Preparedness: Policymakers can encourage catastrophe risk-sharing, as in public-private reinsurance arrangements, or national risk pools, as examples of other countries such as Earthquake Reinsurance System of Japan or the Flood Re program in the UK. These measures have the potential to assist insurers in dealing with large scale climate losses in a more efficient manner as well as building industry resilience in response to climate uncertainty (OECD, 2023).

Balancing Inclusion with Financial Strength: India's vision of "Insurance for All by 2047" should not only aim at expanding coverage but also at maintaining financial soundness. Inclusion initiatives must be supported by strong claims management systems, reliable digital infrastructure, and adequate solvency safeguards so that expansion does not compromise stability. This echoes industry calls for balancing outreach with financial resilience (IRDAI, 2023–24).

4.4. Global and Environmental Context

Economic uncertainties, climate change, increasing prices of reinsurance and fluctuating investment markets are some of the challenges that insurance companies in the world are grappling with. These factors increase claim risks and financial pressure on insurers. Thus, high solvency levels, high liquidity, and operations have never been more significant than nowadays, and reports by the OECD (2023) and the Swiss Re Institute (2024) prove the point. These global processes put further pressure on insurers' capital and underwriting capabilities and suggest the necessity of sound financial structures.

These global trends have also impacted on Indian insurers particularly on health, motor and agriculture insurance where the risks related to climate and economy are escalating. Analysis of the WAR reveals that those companies that are balanced in terms of all the significant financial ratios will be in a better position to deal with such external shocks. This is consistent with the findings of global studies indicating that combined ratio ratings offer more credible details with regards to how stable the insurers would be when subjected to stress (Chen & Wong, 2020; Erdemir, 2023).

In simple terms, this paper points out that the assessment of financial resilience by a combined, regulator-based framework such as WAR is helpful not only to India but also in line with the international best practice in insurance supervision and sustainability. It doubles the idea that the strong insurance markets rely on diversified power in the key financial aspects and that the regulatory systems, which are being more and more focused on multi-factor evaluations, are the key to long-term stability.

5. Conclusion

This paper attempted to benchmark the financial strength of Indian private non-life insurance firms using a composite assessment model grounded on the Weighted Average Rank (WAR) Method and the financial ratios prescribed by the IRDAI. Such findings are a clear indication that, financial strength of an insurance industry cannot be easily established by a single measure, or profitability or premiums increment. Instead, resilience is an outcome of equal mixture of growth capacity, underwriting competence, expense control, liquidity position, and solvency adequacy.

The WAR strategy proved to be a strong and an organized tool of buying various financial factors into an equivalent comparative value rating. The framework applied regulatory based weight of the sixteen key ratios required by IRDAI to assign proportionate weight to the areas of importance such as profitability and solvency but still taking into consideration the areas of operations and growth specific areas. The resultant rankings created a definite and multidimensional benchmarking framework which is highly congruent to the supervisory expectations and the industry best practice.

The empirical findings indicate that the insurers with high WAR rating tend to be consistently good in most of the financial indices, which depict disciplined underwriting, cost management and high capital adequacy. In their turn, firms that possess higher scores of WAR are associated with a relatively lower balance between the main ratios, which implies that the strategy of the organization should be enhanced in the chosen areas. These findings support the main assumption of the study that sustainability of competitiveness in the non-life insurance industry lies in a balance and not dominance in any one of the single performance dimension.

In a bigger picture, the research is of academic and practical importance. In the academic field, it broadly extends the scope of writing on insurance performance measurement by combining the regulatory ratio frame with composite ranking methods. In practice, it provides a convenient reference point in which internal financial discipline can be evaluated by insurers, stable firms by investors, institutional reliability by policyholders and comparative supervision and early-warning

evaluation by regulators.

In conclusion, the study confirms that a regulator-consistent analytical framework like the WAR framework is a more dependable and comprehensive indicator of financial resilience than the conventional detached ratio analysis. Since the Indian insurance market is still developing in conditions of digital transformation, economic fluctuations, and risks associated with climate change, the use of multidimensional evaluation models is bound to remain the key to long-term stability, transparency, and the sustainable development of the sector. The present framework can also be expanded in the future through the inclusion of macroeconomic variables and stress-testing methods to expand the knowledge base on the resilience of insurers in dynamic markets.

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