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Ranking of Insurance Companies Using Multiple Attribute Decision Making (Technique AHP)

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A B S T R A C T

This study aims to rank insurance companies in Iran using multi-criteria decision-making techniques, specifically the Analytical Hierarchy Process (AHP), with emphasis on financial performance indicators. This research employed a descriptive-analytical design with functional objectives. The study population consisted of insurance companies operating in public, private, and free-zone sectors in Iran, including Asia, Alborz, Iran, Dana, Parsian, Tosee & Mellat, Karafarin, Saman, Sina, Razi, Dey, Moallem, Novin, Pasargadae, Omid, Iranmoein, and Hafez. Twenty experts comprising university professors and senior managers of insurance companies were selected to provide evaluations. Data collection involved pairwise comparisons of financial criteria for each company, following the AHP methodology. The consistency of expert judgments was verified using the consistency ratio (CR), ensuring it did not exceed 0.1. Data analysis was conducted using Excel 2007 and Expert Choice software to calculate relative weights of financial indicators, geometric mean matrices, and final rankings based on normalized priority scores. The study identified fourteen financial criteria for evaluating insurance companies. The per capita net income emerged as the most significant indicator with a relative weight of 0.154, followed by the percentage of compensation from total market losses (0.144) and the company's share of total market premiums (0.106). The AHP-based ranking revealed that Asia Insurance achieved the highest overall score (0.159), followed by Iran Insurance (0.155), Parsian (0.126), and Alborz (0.099). Companies such as Omid Insurance (0.009) and Dey Insurance (0.01) were ranked lowest. The methodology demonstrated a reliable and consistent ranking of companies across financial performance measures, reflecting expert judgment and objective evaluation. The findings indicate that AHP is an effective tool for assessing and ranking insurance companies based on financial indicators, providing actionable insights for stakeholders and facilitating strategic decision-making in the insurance sector.

Keywords: *Insurance companies, ranking, Analytical Hierarchy Process, financial performance, multi-criteria decision making*

1. Introduction

The insurance industry plays a fundamental role in modern economies by facilitating risk transfer, promoting financial stability, mobilizing savings, and supporting investment activities. Insurance companies serve as key financial intermediaries that protect individuals, businesses, and governments against potential losses arising from uncertain events. Through their underwriting and investment functions, insurers contribute significantly to economic development, capital formation, and social welfare. As insurance markets become increasingly competitive and complex, evaluating the performance of insurance companies has emerged as an important concern for regulators, investors, policyholders, and company managers. Performance assessment enables stakeholders to identify strengths and weaknesses, improve operational efficiency, and enhance strategic decision-making. Consequently, the development of reliable methods for evaluating and ranking insurance companies has attracted considerable attention among researchers and practitioners in recent years (Dewey et al., 2013; Övgücan Karadağ & Murat, 2022).

The growing complexity of business environments has challenged traditional approaches to organizational performance evaluation. Conventional financial indicators, while valuable, often fail to capture the multidimensional nature of organizational effectiveness. Insurance companies operate within highly uncertain environments where profitability, solvency, customer satisfaction, market share, operational efficiency, and human resources all contribute to overall success. Therefore, relying on a single indicator or isolated financial ratio may produce incomplete or misleading conclusions regarding organizational performance. Modern performance evaluation frameworks emphasize the integration of multiple criteria and dimensions to provide a more comprehensive assessment of organizational effectiveness. This multidimensional perspective has led researchers to adopt multi-criteria decision-making (MCDM) methods that can simultaneously consider numerous quantitative and qualitative factors when evaluating alternatives (Ji et al., 2019; Thomas, 2008).

Among the various multi-criteria decision-making techniques, the Analytic Hierarchy Process (AHP) has become one of the most widely applied and influential approaches. Developed by Thomas Saaty, AHP provides a systematic framework for decomposing complex decision problems into hierarchical structures and assigning relative importance to decision criteria through pairwise comparisons. The method allows decision-makers to combine objective information with expert judgment while maintaining logical consistency throughout the evaluation process. A significant advantage of AHP is its ability to convert qualitative assessments into quantitative weights, thereby facilitating the prioritization of alternatives under multiple criteria. Furthermore, the consistency ratio incorporated within the AHP framework enables researchers to evaluate the reliability of expert judgments and ensure the validity of resulting priorities (Thomas, 2008). Due to these characteristics, AHP has been successfully applied across numerous disciplines, including management, engineering, healthcare, education, logistics, construction, and finance (Serhat & Cengiz, 2010; Tuğrul et al., 2012).

The effectiveness of AHP in organizational evaluation has been demonstrated in a wide range of empirical studies. In the healthcare sector, researchers have employed AHP to evaluate health insurance companies and identify critical performance indicators affecting organizational competitiveness and service quality. Findings suggest that AHP provides a transparent and reliable mechanism for integrating multiple performance dimensions into a unified evaluation framework (Dewey et al., 2013). Similarly, in engineering and operational management contexts, AHP has been utilized to assess resource allocation, operational efficiency, and strategic planning alternatives. The ability of the method to accommodate both qualitative and quantitative variables makes it particularly suitable for evaluating complex systems where multiple stakeholders

possess differing priorities and preferences (Chunling et al., 2020; Ji et al., 2019).

The insurance sector represents one of the most suitable environments for applying multi-criteria decision-making approaches. Insurance companies are evaluated according to numerous financial and non-financial indicators, including profitability, premium growth, claims management, market penetration, administrative efficiency, and human capital development. Since these factors differ in importance and often interact with one another, determining their relative significance requires a structured decision-making framework. AHP offers an effective solution by enabling experts to compare criteria pairwise and generate priority weights that reflect their collective judgments. Consequently, many studies have adopted AHP for insurance company evaluation and ranking. Research conducted in various countries has shown that AHP-based models can successfully identify leading companies, determine critical success factors, and support managerial decision-making within the insurance industry (Dewey et al., 2013; Övgücan Karadağ & Murat, 2022).

Recent investigations have further emphasized the strategic value of performance ranking in insurance markets. Comparative analyses of insurance companies indicate that systematic evaluation contributes to greater transparency, increased competition, improved service quality, and enhanced customer confidence. Ranking systems provide valuable information for investors and policyholders while encouraging companies to improve their operational performance. Moreover, performance rankings help regulatory agencies monitor industry developments and identify potential risks before they escalate into broader financial concerns. These benefits have motivated researchers to explore advanced evaluation methodologies capable of capturing the multidimensional nature of insurance company performance (Övgücan Karadağ & Murat, 2022; Phan-Anh-Huy & Thi-Hong-Tham, 2021).

Beyond the insurance industry, AHP has proven effective in addressing a variety of managerial and strategic challenges. In supply chain management, the method has been widely applied to supplier selection problems where decision-makers must evaluate alternatives according to cost, quality, reliability, and delivery performance. Research demonstrates that AHP facilitates rational decision-making by quantifying subjective judgments and generating consistent rankings among competing alternatives (Serhat & Cengiz, 2010). Similarly, in logistics management, AHP has been employed to evaluate third-party logistics providers, helping organizations identify service providers that best align with their strategic objectives. These applications illustrate the versatility and robustness of the method across different organizational contexts (Tuğrul et al., 2012).

The application of AHP has also expanded into public administration and social insurance management. Studies examining social insurance systems have utilized the method to identify and prioritize factors influencing management effectiveness, policy implementation, and stakeholder satisfaction. These investigations demonstrate that AHP provides a practical mechanism for balancing multiple objectives and incorporating expert knowledge into decision-making processes. The resulting rankings often serve as valuable inputs for policymakers seeking to optimize resource allocation and improve institutional performance (Phan-Anh-Huy & Thi-Hong-Tham, 2021). Similar findings have been reported in educational settings, where AHP and fuzzy AHP techniques have been used to rank teaching methods and learning strategies according to their effectiveness and relevance. Such studies further confirm the methodological flexibility of AHP in addressing diverse evaluation problems (Namazi & Salehi, 2022).

In recent years, researchers have increasingly integrated AHP with other analytical approaches to enhance decision quality and improve evaluation accuracy. For example, studies in construction management have applied AHP to evaluate cost structures, prioritize project alternatives, and assess organizational performance. The results indicate that the method effectively captures the relative importance of diverse evaluation criteria while providing clear and interpretable rankings for decision-makers (Chunling et al., 2020). Likewise, investigations focusing on competitive advantage have employed AHP to identify and rank strategic success factors, demonstrating the method's usefulness in supporting organizational planning and performance improvement initiatives (Shaker Mohammadzadeh, 2022).

Within the Iranian context, the insurance industry has experienced substantial growth and diversification over the past decades. The entrance of private insurers, increasing market competition, and evolving customer expectations have intensified the need for systematic performance evaluation mechanisms. Although regulatory authorities monitor insurance companies through financial reporting and supervisory frameworks, comprehensive ranking systems capable of integrating multiple performance dimensions remain relatively limited. Consequently, managers and policymakers require robust methodologies that can provide meaningful insights into company

performance and support strategic decision-making. The application of AHP in the Iranian insurance sector is particularly valuable because it enables experts to assess complex performance indicators systematically while accounting for both quantitative outcomes and professional judgment (Abbasi & Lashkari, 2021).

Furthermore, strategic decision-making within insurance organizations increasingly depends on the identification and prioritization of critical performance factors. Studies conducted in Iran have shown that AHP-based approaches can effectively prioritize marketing mix elements, investment factors, and strategic objectives within insurance companies. These findings suggest that AHP is not only suitable for organizational ranking but also valuable for identifying key drivers of competitive performance and sustainable growth (Abbasi & Lashkari, 2021). As competition intensifies and market conditions continue to evolve, insurance companies must understand the relative importance of various financial indicators to allocate resources efficiently and improve organizational outcomes.

Despite the growing body of literature on insurance company evaluation, several gaps remain. Many existing studies focus on specific performance dimensions or utilize methods that inadequately capture the complexity of organizational performance. Others emphasize financial outcomes without considering the relative importance of individual indicators. Consequently, there remains a need for comprehensive evaluation frameworks that systematically prioritize performance criteria and generate objective rankings among insurance companies. The Analytical Hierarchy Process offers a suitable methodological solution by combining expert knowledge with quantitative analysis, thereby facilitating comprehensive and transparent evaluations of organizational performance (Övgücan Karadağ & Murat, 2022; Thomas, 2008).

Therefore, the aim of the present study was to rank Iranian insurance companies based on financial performance indicators using the Analytic Hierarchy Process (AHP) and to determine the relative importance of the financial criteria influencing their performance.

2. Methods and Materials

This study employed a descriptive-analytical design with an applied objective, focusing on the evaluation and ranking of insurance companies in Iran using multi-criteria decision-making methods. The research population consisted of insurance companies operating in public, private, and free-zone sectors, including Asia, Alborz, Iran, Dana, Parsian, Tosee & Mellat, Karafarin, Saman, Sina, Razi, Dey, Moallem, Novin, Pasargadae, Omid, and Iranmoein. To gather informed judgments on the relative importance of financial performance indicators, twenty experts were purposefully selected, comprising university professors in management and senior managers from various insurance companies. These participants were considered knowledgeable about the operational and financial aspects of the Iranian insurance industry, providing credible and informed evaluations for the study.

Data were collected using pairwise comparison questionnaires designed according to the Analytical Hierarchy Process (AHP) methodology. Experts were asked to compare financial performance indicators of insurance companies based on relative importance, using a scale ranging from equal importance to extreme preference. The fourteen financial criteria included measures such as per capita net income, growth rate of premiums, percentage of market share, compensation rates, and administrative cost indicators. The consistency of judgments was assessed through the consistency ratio (CR), ensuring that expert evaluations were logically coherent and reliable, with acceptable thresholds set at $CR \leq 0.10$. This approach allowed both qualitative judgments and quantitative weighting of criteria to be incorporated in the assessment of company performance.

The collected data were processed using Expert Choice software and Microsoft Excel 2007. The pairwise comparison matrices provided by experts were first aggregated using the geometric mean method to generate a combined decision matrix. The matrices were then normalized to calculate relative weights for each financial criterion, which were subsequently used to determine the overall ranking of each insurance company. The analysis also involved verifying the consistency of the matrices to ensure the reliability of expert judgments. Finally, the relative weights were applied to compute priority scores, allowing the identification of top-performing and lower-performing insurance companies based on financial performance, with Asia Insurance emerging as the highest-ranked company, followed by Iran Insurance and other firms according to descending order of their weighted scores.

3. Findings and Results

A total of 20 experts participated in this study, consisting of university professors specializing in management and

senior managers from insurance companies operating in Iran. All participants had substantial professional experience in the insurance industry and were selected purposively based on their expertise in insurance performance evaluation and strategic management. The expert panel provided judgments through pairwise comparison questionnaires developed according to the Analytical Hierarchy Process (AHP). All completed questionnaires were reviewed and found suitable for analysis. The consistency ratios obtained from the pairwise comparison matrices were below the acceptable threshold of 0.10, indicating that the judgments were sufficiently consistent and reliable for inclusion in the final analysis.

Table 1

Relative Weights and Priorities of Financial Performance Indicators

Financial Indicator	Weight	Priority
Per Capita Net Income	0.154	1
Percentage Share of Compensation Paid from Total Market Losses	0.144	2
Percentage Share of Total Issued Insurance Premiums in the Market	0.106	3
Growth Rate of Premiums Issued Compared to Previous Year	0.087	4
Growth Rate of Compensation Compared to Previous Year	0.076	5
Premium Per Capita	0.075	6
Growth Rate of Market Loss Share Compared to Previous Year	0.058	7
Third-Party Insurance Premiums as Percentage of Total Portfolio	0.055	8
Employees with More Than Ten Years of Experience to Total Staff	0.049	9
Third-Party Insurance Premiums as Percentage of Third-Party Market Portfolio	0.046	10
Employees Holding University Degrees to Total Staff	0.041	11
General and Administrative Costs Per Capita	0.039	12
Growth Rate of Premium Market Share Compared to Previous Year	0.035	13
Number of Representatives to Total Members	0.035	14

Table 1 presents the relative importance of the financial performance indicators identified through the AHP analysis. The findings indicate that per capita net income received the highest priority with a relative weight of 0.154, demonstrating that profitability at the individual operational level is considered the most influential criterion in evaluating insurance company performance. The percentage share of compensation paid from total market losses ranked second with a weight of 0.144, highlighting the significance of claim settlement performance and market participation. The percentage share of total issued insurance premiums in the market ranked third with a weight of 0.106, emphasizing the importance of market penetration and premium generation. Indicators related to premium growth, compensation growth, and premium per capita occupied the next ranks, reflecting the importance of sustainable business expansion and financial productivity. In contrast, the number of representatives relative to total members and the growth rate of premium market share received the lowest weights, suggesting that experts considered these factors less critical than profitability, claims performance, and market share when evaluating insurance companies.

Table 2

Pairwise Comparison Matrix Consistency Results

Evaluation Measure	Value
Number of Financial Criteria	14
Maximum Eigenvalue (λmax)	15.276
Consistency Index (CI)	0.098
Random Index (RI)	1.57
Consistency Ratio (CR)	0.062
Judgment Status	Acceptable

The results shown in Table 2 demonstrate the reliability and consistency of expert judgments used in the AHP model. The consistency ratio of 0.062 was considerably below the accepted threshold of 0.10, indicating that the experts

provided highly coherent pairwise comparisons among the financial indicators. This result confirms that the prioritization process was methodologically sound and that the derived weights accurately reflected the collective opinions of the expert panel. The acceptable consistency ratio supports the validity of subsequent ranking analyses and strengthens confidence in the final prioritization of insurance companies.

Table 3

Ranking of Insurance Companies Based on Financial Criteria

Insurance Company	Weight	Rank
Asia	0.159	1
Iran	0.155	2
Parsian	0.126	3
Alborz	0.099	4
Mellat	0.066	5
Iranmoein	0.060	6
Moallem	0.039	7
Dana	0.038	8
Karafarin	0.038	9
Tosee	0.034	10
Hafez	0.035	11
Pasargad	0.034	12
Novin	0.033	13
Razi	0.032	14
Sina	0.019	15
Saman	0.013	16
Dey	0.010	17
Omid	0.009	18

The ranking results presented in Table 3 reveal substantial differences among insurance companies regarding financial performance. Asia Insurance achieved the highest overall score (0.159), indicating superior performance across the weighted financial criteria and securing the first rank among all evaluated companies. Iran Insurance followed closely with a score of 0.155, reflecting strong financial performance and market position. Parsian and Alborz Insurance occupied the third and fourth positions, respectively, demonstrating competitive financial structures and favorable operational outcomes. The middle-ranked companies, including Mellat, Iranmoein, Moallem, Dana, and Karafarin, exhibited moderate performance levels. Conversely, Sina, Saman, Dey, and Omid Insurance received the lowest scores, indicating weaker performance relative to other market participants. The considerable variation in weights suggests notable differences in financial effectiveness among insurance companies operating in Iran.

Table 4

Top Five Insurance Companies According to Financial Performance

Rank	Insurance Company	Weight
1	Asia	0.159
2	Iran	0.155
3	Parsian	0.126
4	Alborz	0.099
5	Mellat	0.066

Table 4 focuses on the five highest-performing insurance companies identified through the AHP analysis. Asia Insurance achieved the highest score and demonstrated a slight advantage over Iran Insurance, although both companies substantially outperformed the remaining competitors. Parsian Insurance secured the third position with a notable gap from the two leading companies, while Alborz and Mellat occupied the fourth and fifth positions, respectively. These findings suggest that the leading companies possess stronger financial structures, superior profitability, and more favorable market performance than the rest of the industry. The concentration of higher weights among a limited number of companies also indicates a degree of financial performance inequality within the insurance sector.

Table 5

Distribution of Insurance Companies by Performance Category

Performance Category	Number of Companies	Percentage
High Performance (Ranks 1–5)	5	27.8%
Moderate Performance (Ranks 6–12)	7	38.9%
Low Performance (Ranks 13–18)	6	33.3%
Total	18	100%

The categorization presented in Table 5 provides a broader view of the competitive landscape of the insurance industry. Approximately 27.8% of the companies were classified as high-performing organizations, while 38.9% demonstrated moderate performance levels. A considerable proportion of companies (33.3%) fell into the low-performance category, indicating substantial room for financial improvement within the sector. These findings suggest that although a limited number of insurance companies have achieved strong financial positions, many organizations continue to face challenges in profitability, market share growth, operational efficiency, and overall financial effectiveness.

Figure 1

Final Priority Weights and Ranking of Insurance Companies Based on the Analytical Hierarchy Process (AHP)

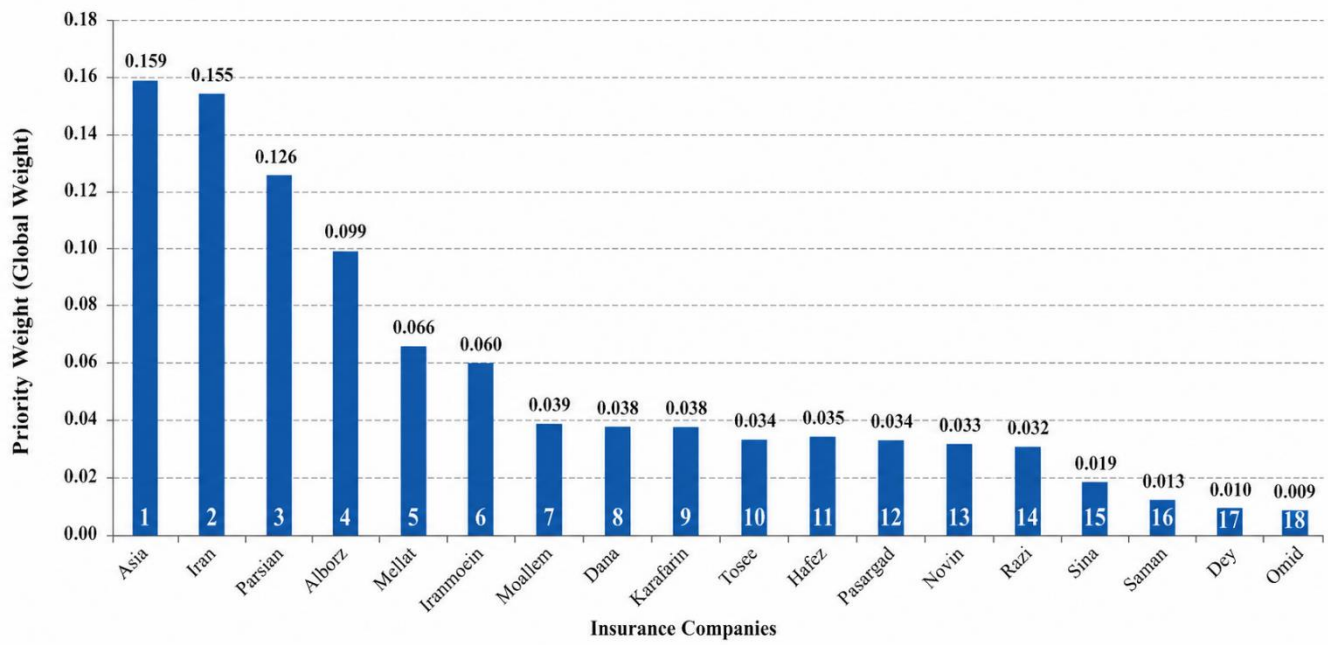

Figure 1 illustrates the final priority weights obtained through the AHP model and visually compares the relative performance of all evaluated insurance companies. The figure clearly demonstrates the dominance of Asia and Iran Insurance, which achieved the highest weights among all companies. A gradual decline in weights is observed from the top-ranked companies toward the lower-ranked organizations, highlighting significant performance disparities across the industry. The graphical representation further confirms that the distribution of financial performance is not uniform among insurance companies and that a relatively small group of firms accounts for the strongest financial outcomes. The figure provides an intuitive visualization of the ranking results and reinforces the conclusions derived from the tabular analyses regarding the comparative financial standing of insurance companies operating in Iran.

4. Discussion and Conclusion

The results of the present study reveal significant insights regarding the performance and financial prioritization of

insurance companies in Iran using the Analytic Hierarchy Process (AHP). Asia Insurance emerged as the top-ranked company with a relative weight of 0.159, followed closely by Iran Insurance at 0.155, and Parsian at 0.126. These findings suggest that among the evaluated companies, certain organizations demonstrate superior financial management, profitability, and operational efficiency, which likely contribute to their competitive advantage in the Iranian insurance market. The indicators with the highest weights were per capita net income, the percentage share of compensation paid from total market losses, and the company's share of total market premiums. These results indicate that both profitability and claims management play pivotal roles in the financial performance of insurance companies. These findings align with previous studies indicating that the financial health of insurance companies, particularly metrics related to net income and claim settlement efficiency, is a critical determinant of overall organizational performance (Dewey et al., 2013; Övgücan Karadağ & Murat, 2022).

The prioritization of per capita net income as the most influential criterion is consistent with the strategic focus of companies on profitability and efficient resource utilization. This finding corroborates prior research demonstrating that financial metrics such as net income and growth in premium issuance are primary indicators of an insurance company's capability to sustain operations and invest in expansion (Abbasi & Lashkari, 2021). Moreover, the ranking of compensation-related indicators highlights the importance of claims management in shaping the perception of financial stability and market reliability. This aligns with studies in social insurance and corporate evaluation, where effective claims processing and market participation were identified as essential components influencing organizational performance and stakeholder confidence (Phan-Anh-Huy & Thi-Hong-Tham, 2021; Thomas, 2008).

The hierarchical ranking of insurance companies observed in this study can be interpreted as a reflection of both strategic financial management and operational efficiency. For instance, the top-performing companies likely demonstrate effective premium collection mechanisms, investment strategies, and claims settlement processes. These operational practices not only improve net income but also reinforce customer trust and market share, thereby sustaining high financial performance. The observed moderate ranking of companies such as Mellat, Iranmoein, and Moallem suggests that while these companies maintain acceptable financial stability, there may be inefficiencies or limitations in resource allocation or claims management that prevent them from achieving top-tier performance. Similar patterns were reported in international comparative studies, where top-performing insurers excelled in integrating strategic planning with operational execution (Chunling et al., 2020; Ji et al., 2019).

A further observation is the lower ranking of companies such as Sina, Saman, Dey, and Omid, which may indicate structural or managerial challenges that hinder optimal performance. Lower scores in these companies could be attributed to inefficient allocation of financial resources, limited market penetration, or suboptimal claims processing systems. These results reinforce the importance of multi-dimensional performance evaluation frameworks that incorporate financial metrics alongside operational and managerial indicators. Previous research supports this integrated approach, highlighting that reliance on singular performance indicators often underestimates the complexity of organizational efficiency and competitive positioning (Övgücan Karadağ & Murat, 2022; Phan-Anh-Huy & Thi-Hong-Tham, 2021).

The application of AHP in this context proves to be particularly suitable, as it allows for the conversion of expert qualitative judgments into quantitative weights and facilitates the systematic ranking of companies. The high consistency of expert judgments, with all consistency ratios below 0.10, confirms the robustness of the method and the reliability of the resulting rankings. This methodological validation is consistent with prior applications of AHP in insurance evaluation, where it has been used to prioritize financial and operational criteria effectively, enabling stakeholders to make evidence-based decisions regarding resource allocation and strategic investments (Dewey et al., 2013; Thomas, 2008). Furthermore, AHP provides a transparent and replicable framework that can accommodate diverse expert opinions and reconcile conflicting judgments, which is critical in industries characterized by complex financial interactions and regulatory oversight (Abbasi & Lashkari, 2021; Övgücan Karadağ & Murat, 2022).

The emphasis on financial criteria in this study aligns with global research demonstrating that profitability, market share, and claims management are consistently ranked as top priorities in evaluating insurer performance. For instance, studies in China, Turkey, and Europe utilizing AHP and complementary methods have shown that per capita profitability, premium growth, and claim ratios are significant predictors of overall company ranking and market competitiveness (Chunling et al., 2020; Ji et al.,

2019; Serhat & Cengiz, 2010). Moreover, the findings echo international observations that firms excelling in these areas are more resilient to economic fluctuations, better positioned to attract customers, and more capable of sustaining long-term growth (Dewey et al., 2013; Övgücan Karadağ & Murat, 2022).

The study also demonstrates the practical value of performance ranking for strategic decision-making. By identifying top-performing companies and ranking critical financial criteria, managers can focus on improving specific areas that drive overall efficiency and profitability. For example, the high weight of per capita net income suggests that increasing operational profitability through effective underwriting and investment strategies should be a priority. Similarly, the importance of compensation management implies that optimizing claims processing and risk assessment processes is essential for improving market positioning. These insights provide actionable guidance for policymakers, regulators, and corporate managers aiming to enhance organizational effectiveness and competitive advantage in the insurance sector (Abbasi & Lashkari, 2021; Namazi & Salehi, 2022).

Moreover, the integration of expert judgment into the AHP framework underscores the importance of combining quantitative financial data with qualitative insights. Expert knowledge regarding market trends, regulatory requirements, and operational practices provides a nuanced perspective that purely statistical approaches might overlook. This hybrid approach enhances the validity of the evaluation and ensures that company rankings reflect both measurable outcomes and experiential understanding. Similar approaches have been recommended in prior studies, particularly when evaluating organizations operating in complex and dynamic markets such as insurance and social security management (Phan-Anh-Huy & Thi-Hong-Tham, 2021; Thomas, 2008).

Overall, the study confirms that multi-criteria decision-making tools, particularly the Analytic Hierarchy Process, are highly effective for evaluating and ranking insurance companies. By prioritizing financial performance indicators and systematically integrating expert opinions, the study provides a comprehensive framework for assessing organizational effectiveness and identifying strategic improvement areas. The findings support the notion that financial performance, operational efficiency, and market participation are closely interrelated and collectively determine competitive success. The results further suggest that organizations seeking to improve their performance should focus on optimizing these key financial indicators while continuously monitoring operational processes and market developments (Abbasi & Lashkari, 2021; Övgücan Karadağ & Murat, 2022).

Despite its contributions, this study has several limitations. First, the evaluation relied exclusively on expert judgments from a relatively small sample of 20 individuals, which may limit the generalizability of the findings. While the experts were carefully selected for their experience, the results could vary if a larger or more diverse panel were included. Second, the study focused primarily on financial indicators, omitting potential non-financial performance measures such as customer satisfaction, digital innovation, or human resource development, which may also influence overall company performance. Third, the data were cross-sectional, reflecting a snapshot in time; as such, temporal changes in company performance or market conditions were not captured. Finally, the confidentiality of company-specific financial data constrained the availability of secondary data, limiting the scope of objective verification.

Future research should consider incorporating a broader range of performance indicators, including non-financial measures such as customer experience, technological innovation, and corporate social responsibility. Expanding the expert panel to include international analysts or regulators could provide additional perspectives and enhance the robustness of the rankings. Longitudinal studies examining changes in company performance over time would offer insights into the stability and evolution of rankings under varying market conditions. Moreover, integrating AHP with complementary decision-making techniques such as Fuzzy AHP or Grey Relational Analysis could improve the handling of uncertainty and enhance the precision of priority weights. Finally, comparative studies across countries or regions would allow researchers to evaluate the relative effectiveness of different insurance markets and regulatory frameworks.

From a practical standpoint, insurance company managers can utilize the study findings to identify priority areas for improving financial performance. Focusing on per capita net income, claims management efficiency, and market share growth should be central to strategic planning. Companies should invest in enhancing operational processes, adopting innovative risk management strategies, and optimizing resource allocation to maintain competitive advantage. Regulatory agencies may use the ranking framework to monitor industry performance, identify underperforming companies, and implement targeted

interventions. Furthermore, stakeholders such as investors and policyholders can leverage the performance rankings to make informed decisions regarding company selection and engagement. Overall, the application of structured performance evaluation tools can drive transparency, strategic improvement, and sustainable growth in the insurance sector.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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