



Evaluating Performance of Insurance Sector in Pakistan Through Benchmark Performance Indicators

Rakhtawar	*
Dakinawai	

```
Kashif Hamid <sup>†</sup>
```

Benchmarking has been very important in measurement,

comparison, and improvement. Important benchmarking

indicators such as leverage, liquidity, stock performance, profitability, asset utilization and growth are used to examine the performance of various companies in different businesses. The current study is based on secondary data,

which were collected from annual reports of 14 insurance companies of the Listed Pakistan Stock Exchange during the period of 2014-2018. For this purpose,

the Technique for order Preferences by the Similarity to Ideal Solution (TOPSIS) based on Grey Relation Analysis (GRA) has been used. The findings of the study help managers of moderate growth and low growth insurance companies to

formulate policies to improve their performance by looking at the policies of highly growing Insurance companies. The results concluded that overall ranking

of insurance companies from 2014 to 2018, JLIL ranked 1st in overall performance in the year 2014. It is due to high net sales and total investment

Ali Raza ‡

- Vol. VI, No. I (Winter 2021)
- Pages: 363 372
- p- ISSN: 2520-0348
- e-ISSN: 2616-793X
- ISSN-L: 2520-0348

Key Words: Benchmark, Performance Indicators, Insurance Sector, TOPSIS, GRA, FSA

Introduction

Abstract

The performance is measured through some reference points that is called "benchmark". It indicates the possibilities of achievable rather than what is being achieved. It can be said that the benchmark is the vardstick to measure the level of excellence. Benchmarking identifies loop wholes in an organization and hence improves the performance of an organization. It is a kind of cross-sectional analysis in which the ratios of firms are linked to those of the main competitor, or group of competitors that it wishes to compete with is called benchmarking (Gitman, 2004). Benchmarking is well known for its simple method for continuous quality improvement (Dattakumar and Jagadeesh. 2003). Benchmarking is known as "an essential instrument for continuous quality improvement." Benchmarking practices have continuously evolved in different forms over the years.

returns as compared to other insurance companies.

Benchmarking is unquestionably a prime concern in the business world.

Benchmarking's purpose is to evaluate an excellent organization's processes and performance outcomes to those of its competitors on a regular basis, as well as to compare processes and results inside the organization itself in a continuously changing market environment. This comparison research is critical for individuals, organizations, and industries to optimize their business processes and attain their success goals (Ashraf, Li, Butt, Naz, & Zafar, 2019).

Profitability indicates the extent to which the company can manage its own capital effectively, measuring the rate of profit from investments that have been made by the owner of capital or holding shares of the company (<u>Ramaditya et al.</u>, <u>2019</u>). The use of assets is a tool for finding asset opportunity gaps. It can help firm managers in

Citation: Bakhtawar, Hamid, K., & Raza, A. (2021). Evaluating Performance of Insurance Sector in Pakistan Through Benchmark Performance Indicators. *Global Social Sciences Review, VI*(I), 363-372. https://doi.org/10.31703/gssr.2021(VI-I).37

^{*}Institute of Business Management Sciences, Faculty of Social Sciences, University of Agriculture, Faisalabad, Punjab, Pakistan.

[†]Institute of Business Management Sciences, Faculty of Social Sciences, University of Agriculture, Faisalabad, Punjab, Pakistan.

[‡]Lecturer, Department of Commerce, Government Associate College for Boys, Kameer Town Sahiwal, Punjab, Pakistan. Email: <u>kashif.boparai@hotmail.com</u>

uncovering hidden asset capacity by measuring the difference between what the assets can produce and what it produced opportunity gap (<u>Nwaorgu et al., 2019</u>). A leverage ratio is a tool for assessing a company's leverage. Overuse of debt puts businesses at risk as they fall into the extreme debt category, which means that businesses will end up in high debt, and the debt burden will be difficult to resolve (<u>Mediawati,</u> <u>2016</u>). Liquidity Ratio is the ratio used to interpret short-term financial position.

Liquidity ratio showing the relationship between cash and current assets of other companies with their current liabilities (Liargovas and Skandalis, 2008). Growth refers to the company's ability to sustain its role in the economic and industrial development in which the business operates (Pakpahan, 2010). A calculation of the returns on shares over a period is stock efficiency. There are several stock performance indicators, and each has its own characteristics and benefits during the return review (Dang et al., 2020). In short, TOPSIS is used in the current study to analyze the rankingbased benchmarking of Pakistan's insurance sector during the period from 2014 to 2018. The ratios used in these papers are shown in the appendix. This paper is comprised of five sections: introduction, literature review, data and methodology, results and discussion and conclusions.

In the current era, the importance of insurance has been increased as its growth is increasing, and because of this increasing significance, the non-financial sector has increased its amount of investment for risk diversification in the insurances sector. However, the insurance sector performance phenomena are not properly addressed in Pakistan (Li et al., 2020). Therefore, in Pakistan, the main concern of companies is to enhance the ability to establish the sustainability of their competitiveness in their relevant sectors. Hence, so this study is designed to rank the insurance companies based on benchmarking performance indicators, i.e., liquidity, leverage, stock performance, profitability, asset utilization, growth, and to explore the relative performance of companies in the insurance sector of Pakistan.

This study is aimed to seek the objectives given below:

1. To rank the companies of the insurance sector by evaluating their performance

through six indicators of benchmarking, i.e., leverage, liquidity, stock performance, profitability, asset utilization and growth

- 2. To explore the relative performance of companies in the insurance sector of Pakistan
- 3. To provide the policy guideline for better performance of insurance companies.

Literature Review

Numerous scholars around the world have investigated benchmarking performance indicators from different perspectives by analyzing Financial Statement Analysis (FSA), market value-based ranking and Grey Relation Analysis (GRA). Xiong (2007) used the evaluation of GRA regarding the monetary condition of six firms. The comprehensive financial evaluation of the listed company was a grey problem. GRA was used for this analysis. A grey relational evaluation model was set up and studied practically, and then a conclusion about the order of the complete financial situation of these six listed companies was drawn. The result showed that the GRA method was elastic and could avoid the drawbacks of assessing the monetary situation from only one feature in previous studies by the researchers. Bulgurcu (2012) studied the TOPSIS application and evaluation of the monetary performance regarding the technology firms in the Istanbul Stock Exchange (ISE).

The goal of this study was to provide a multicriteria decision-making model to assess and measure the financial performance of 13 technology companies listed on the ISE. The findings showed that the study that ranking outcome of. TOPSIS and ranking outcomes of companies in question were similar and vice versa. Dogan (2013) assessed the GRA-based performance of banks in Turkey. The goal of the study was to apply GRA to the measurement and associated monetary output of ten ISE-listed banks during the 2005-2011 period. The secondary goal was to minimize the number of monetary rates that would decide the success of banks. The outcome of GRA methodology showed that the AK bank ranked on top while YapKredi Bank ranked at last in ten chosen banks in terms of monetary performance. Furthermore, the banks with a higher Return on Asset (ROA) ratio lead toward a high level of monetary performance.

Cam et al. (2015) studied the role of the TOPSIS method in order to determine the ranking based firm's monetary performance in Borsa Istanbul. The secondary data of nine textile firms are collected annually. The monetary performances of textile firms were evaluated by the TOPSIS technique by using financial rates during the period of four years, 2010 to 2013. The result revealed that performance scores were based on TOPSIS and providing the variability in relationships and dissimilar with those rankings calculated by measurement performance through old-style. Isseverogly and Sezer (2015) examined the financial performance of 16 life and pension insurance businesses in Turkey using financial ratios calculated using the TOPSIS approach. They used the TOPSIS method to convert financial ratios into a single point of showing business performance. The financial performance review was conducted for five periods, including the period from 2008 to 2012 and the results obtained were compared. They revealed that the performance values of the pension funds usually do not change during the analysis period.

Kaya (2016) studied the analysis of monetary performances of non-life insurance firms listed on the Bosra Istanbul (BIST) during the period from 2010-2014. The main four financial indicators were taken, such as liquidity ratios, profitability ratios, capital adequacy ratios and operating ratios which comprised sixteen financial ratios in total that is used in GRA. The outcomes also revealed that there was the highest impact of profitability ratios on the monetary performance of firms. Sari (2016) examined supplier selection with the GRA method. The main aim was to develop an alternate solution strategy for issuing the selection of suppliers under ambiguous situations. The author used four main criteria for performance measurement of suppliers such as service quality, price and delivery (Ashraf, Li, & Mehmood, 2017). The performances of fifteen suppliers regarding manufacturing firms of food were assessed by GRA, and the best suppliers were carefully chosen based on the highestranking of coefficient in a list. Bajwa et al. (2018) studied the benchmarking performance indicator based on twenty-four banks of Pakistan. The aim of their research work was to provide the insight into performance evaluation of the banking sector of Pakistan in comparison with the stock market. In short, the high ROA ratios were leading to a high level of monetary performance among the banks. Alali (2018) examined internal elements that highly influenced the profitability of insurance companies registered on the Kuwait stock exchange between 2010 to 2017. The impact of these elements on the profitability of publicly traded companies seven was investigated using panel data from their financial statements. The findings also revealed that the profitability of Kuwaiti insurance companies was unaffected by growth, management, liquidity, and efficiency.

The goal of this study, according to Ramaditya (2019), was to look at the impact of profitability, liquidity, leverage, and business size the cost-effectiveness of on Indonesian manufacturing firms. The three years data from 2014-2016 was collected from Indonesia Stock Exchange. A total of 30 manufacturing enterprises were employed to assess the proposed model's overall fit and to test the hypothesis using multiple regression analysis. This research provides theoretical and administrative input to achieve a higher pricequality ratio and focuses on the performance of the company. In the case of Pakistan's logistics sector, Rao et al. (2020) investigated the impact of leverage and ownership, such as power and on business degrees of control, high performance. This study's data sample included 141 Pakistani businesses registered on the Pakistan Stock Exchange, with a study period spanning 2008 to 2018. Furthermore, the study found that results with a sales rate of growth (as a growth options measurement proxy) had greater explanatory power than results with a Price to Earnings Ratio measurement proxy. Meher and Zewudu (2020) studied that insurance acts as a social instrument that indemnifies human life and properties against unforeseeable risks. A quantitative approach was applied in this research by adopted inferential statistics with balanced panel data of nine insurance companies for 15 years, 2002 to 2016. Furthermore, reduction of underwriting risk by transferring surplus risk to the reinsurers. managing capital structure with least dependence on borrowed capital and utilization of premium earned in return on investments and improved the monetary performance of insurance companies.

Methodology

The subject matter of the current study is based on the Insurance sector of Pakistan: however, the study has taken all the fourteen insurance companies which were currently listed on the stock exchange and are in operation. The current study is based on secondary data, which are collected from annual reports and online websites. The data has been taken for the period 2014-2018. MS-Excel is the program that was used in this research. In terms of objectives, the current study is applied research. The three methodologies are used in the current study, such as Grey Relation Analysis (GRA) and Financial Statement Analysis (FSA) (Ho and Wu 2006: Ho, 2006) and market value-based ranking for comparison (Bulgurcu, 2012). Deng (1982) was the first to define GAR, which was based on the grey space relationship hypothesis. Greyness, in its most fundamental definition, refers to data that is incomplete or unknown. Therefore, as a grey product, an element from a half-finished message is weighed (Usman Khurram, Hamid, & Javeed, 2020). Grey relationship means the calculation of various connections between two processes or between two variables that occur over a period of time in a system (Shih et al., 1994), and GRA is a research technique engaged in capturing the connections between elements when their growth movements have either heterogeneity or homogeneity (Deng, 1989). In a consistent pattern, if two elements grow, then these elements showed a high degree of relationship. If two elements evolve and are incapable of following a steady pattern, a lower relationship level may result. Deng (1989) indicated that in GRA, the following modelling is considered.

Let X = {xj | j = 1, 2, ...; n} as elements in grey relations in consecutive order, x1 ϵ X as reference sequence; x1 ϵ X (j \neq 1) as relative sequence. Then x1(i) and xj (i) (l = 1, 2, m; j = 2, 3, n) would be the values of x1 and xj at point i. If $\gamma(x_1, x_j)$ are real numbers, then it can be defined as:

The mean of x1(i) and xj (i) must satisfy four grey relation axioms, which are listed below.: Axiom No. 1: Norm interval in GRA

$$0 < \gamma(x_1, xj) \leq 1$$

 $\gamma(x_1, x_j) = 1 \leftrightarrow x_1 = x_j$, referred as complete relation.

 $\gamma(x_1, x_j) = 0 \leftrightarrow x_1 = x_j$, referred as complete non-relation.

Axiom No. 2: Duality symmetric GRA

$$\gamma(x,y) = \gamma(y,x) \leftrightarrow X = (x,y)$$

 $\gamma(x_1, xj) = 1 \leftrightarrow x1 = xj,$

Axiom No. 3: Wholeness in GRA

 $\gamma(xj, x_i) = \gamma(y, x) \leftrightarrow X = (x, y)$

Axiom No. 4: Approachability in GRA

 $\gamma(x_1(i) \text{ and } x_j(i))$ Get larger along with $|x_1(i) \text{ and } x_j(i)|$ get smaller

According to Ho and Wu (2006), g(x1(i)) and xj (i)) is the grey relational analysis of xj to x1 at point i if the aforementioned public theories are fully satisfied. Deng (1982) proposed the following mathematical equation to satisfy these four axioms of grey relationship:

$$\gamma(x_1(i), x_j(i)) = \frac{\min_{i} |x_1(i) - x_j(i)| + \zeta \max_{i} |x_1(i) - x_j(i)|}{|x_1(i) - x_j(i)| + \zeta \max_{i} \max_{i} |x_1(i) - x_j(i)|}$$
... (3.2)

 $\gamma(x_1(i) \text{ and } xj~(i))$ is designed in xj connection to \$x1\$

$$\max \max |(x_1(i), x_j(i))| \quad \text{as a}$$

grade of grey relation

 $\gamma(x_1(i) \text{ and } xj(i))$ is defined as the grey relational coefficient of xj to x1 at point i where $\zeta \in [0,1]$ is the distinguishing coefficient, whose role is to lower the numerical value by:

It is growing, affecting its loss-authenticity, and increasing the significant gap between association coefficients. In a nutshell, GRA is a term taken from industries and gradually extended to determine the relative success of major banks in the area of trade. The goal of engaging the GRA tool is to reduce the number monetary factors by selecting such of representative factors from the review of financial statements (Ho and Wu 2006). TOPSIS was originally founded by Hwang and Yoon (1981). TOPSIS seeks to discover a solution that is the nearest to the ideal positive solution (A+)and the farthest from the ideal negative solution (A-). In addition, among a variety of viable options, the A+ is the most effective or least expensive value, while A- is the least efficient and the highest cost value. In previous research, TOPSIS was used as the ranking system in GRA. The value of such a method is simple, resulting in an extremely clear order choice (<u>Ho, 2006</u>; <u>Ho</u> and <u>Wu, 2006</u>).

The TOPSIS technique is applied to estimate the overall performance rating of each insurance company. After implementing "TOPSIS", the author determined the ranking of 14 insurance companies based on six financial indicators 2014-2018 (such as leverage. liquidity. profitability, growth, asset utilization, stock performance and overall performance). TOPSIS is composed of six steps. In the first step, use the formula given in Equation 3.3 to normalize the vector. In addition, the application of GRA follows the TOPSIS technology, which also employs vector normalization. TOPSIS technology employs the ratio of the square root of the original value to the sum of the original index value (Ho and Wu, 2006). Calculated as follows

Where,

i denote ith Insurance company

j denote jth financial ratio

r_{ij} = Performance value concerning financial ratios after normalization of vectors for direction and magnitude

 x_{ii} = Performance value of financial ratios

m = The no. of Insurance companies

In the second step, clustering is done based on grouping and effective value to remove nonimportant financial indicators used in FSA (<u>Ho</u> and Wu, 2006; <u>Ho</u>, 2006). Let me repeat; many previous studies have used GRA to implement benchmarking performance indicators for banks, projects, and companies using the TOPSIS method while ignoring the step of clustering financial indicators (<u>Lai et al.</u>, 1994; Jahanshahloo et al. 2009; Salabun. 2013; Wu and Chuang, 2013). In the third step, use the mathematical formulas for the positive ideal solution (A +) and the negative ideal solution (A-).

 $\begin{aligned} A^{+} &= \{ (\max_{i} x_{ij} | j \in J), (\min_{i} x_{ij} | j \in J') | i = \\ 1,2,\ldots,m) &= \{ A_{1}^{+}, A_{2}^{+}, \ldots, A_{j}^{+}, \ldots, A_{k}^{+} \} \dots (3.4) \\ A^{-} &= \{ (\min_{i} x_{ij} | j \in J), (\max_{i} x_{ij} | j \in J') | i = \\ 1,2,\ldots,m) &= \{ A_{1}^{-}, A_{2}^{-}, \ldots, A_{j}^{+}, \ldots, A_{k}^{-} \} \dots (3.5) \end{aligned}$

Where,

 $J = \{j = 1, 2, k | k \text{ is efficiency}\}$ $J' = \{j = 1, 2, k | k \text{ is cost}\}$

In 4th step, Researcher calculates distance from each solution (insurance companies) to Positive Ideal Solution (S+) & Negative Ideal Solution (S-) by formulas explained in equations 3.7 and 3.8, Researcher get.

$$S_{i}^{+} = \sqrt{\sum_{j=1}^{k} (v_{ij} - A_{j}^{+})^{2}} \dots (3.6)$$
$$S_{i}^{+} = \sqrt{\sum_{j=1}^{k} (v_{ij} - A_{j}^{+})^{2}} \dots (3.7)$$

S+i is the shortest distance from the ideal solution (insurance companies); S2i is the farthest distance from the worst solution (insurance companies). In the 5th step, the Researcher calculates the Proximity of each Solution (insurance companies) to Ideal Solution (C*i) by the formula given in equation 3.9, Researcher get.

$$C_i^* = \frac{s_i^-}{s_i^+ + s_i^-}$$
 (3.8)

The final step uses the C*i value from the last step for ranking the performance of the solutions (insurance companies). As a result, the ranking of all insurance companies in terms of six financial indicators such as leverage, liquidity, profitability, growth, asset utilization, stock performance and total performance is done with the help of the TOPSIS method.

Results and Discussion

The TOPSIS research ranking of fourteen insurance firms for the years 2014 to 2018 is shown in Table 1. To finalize the relative performance of the insurance firms under review, the TOPSIS approach is used. TOPSIS indications should be the least away from the ideal solution and the farthest away from the worst-case scenario. The optimal solution is the one for each of the replacement insurance firms, which has the highest efficiency and the lowest cost indicators. The worst solution is that each of the substitute-insurance firms has the smallest performance indicator and the biggest cost indicator.

Ranked 1 JLIL (0.4696) ALAC (0.4404) ALAC (0.504) EFUL (0.39	928) EFUL (0.3926)
Ranked 2 ALAC (0.4304) CSIT (0.3843) JLIL (0.4750) ALAC (0.3843)	822) JLIL (0.3896)
Ranked 3 UNIC (0.4298) JLIL (0.3796) ATIL (0.4578) CSIT (0.37	AGIC (0.3776)
Ranked 4 PINL (0.4039) UNIC (0.3397) ASIC (0.4431) PINL (0.34	415) ALAC (0.3740)
Ranked 5 AICL (0.3661) IGIL (0.3309) AICL (0.4426) EFUG (0.31	212) AICL (0.3437)
Ranked 6 CSIT (0.3503) PINL (0.3189) EFUG (0.4291) EWIC (0.35	210) ATIL (0.3388)
Ranked 7 AGIC (0.3471) EFUG (0.3096) UNIC (0.4232) JLIL (0.32	204) EFUG (0.3360)
Ranked 8 ATIL (0.3419) ACIL (0.3028) EFUL (0.4194) UNIC (0.30	013) CSIT (0.3289)
Ranked 9 IGIL (0.3408) ATIL (0.2910) IGIL (0.4111) AGIC (0.27	762) EWIC (0.3147)
Ranked 10 EFUG (0.3366) EWIC (0.2819) AGIC (0.4106) ATIL (0.27	760) UIC (0.3015)
Ranked 11 ASIC (0.3327) ASIC (0.2785) EWIC (0.4050) AICL (0.27	712) ASIC (0.3014)
Ranked 12 EFUL (0.3144) EFUL (0.2777) PINL (0.3865) ASIC (0.26	647) IGIL (0.2893)
Ranked 13 EWIC (0.3078) AGIC (0.2759) HICL (0.3861) IGIL (0.23	B68) HICL (0.2724)
Ranked 14 HICL (0.2990) HICL (0.2116) CSIT (0.3205) HICL (0.20	049) PINL (0.2297)

Table 1. Overall ranking of the Fourteen Insurance Companies 2014-2018

In order to compare insurance companies from 2014 to 2018, the JLIL ranked first in overall performance in the year 2014. It is owing to high net sales and total investment returns as compared to other insurance companies. On the basis of TOPSIS, the bigger the net sales and total investment, the better the overall performance. The ALAC ranked 1st in overall performance during 2015 and 2016. It is due to highly efficient earning assets and return on investment as compared to other insurance companies. The

higher the efficient earning assets and return on investment, the higher will be the overall performance based upon TOPSIS. The EFUL ranked 1st in overall performance from 2017 and 2018. It is due to high return on capital investment and asset turnover as compared to other insurance companies. The higher be the return on capital investment and asset turnover, the higher will be its overall performance on the basis of TOPSIS.

	Ranking	Firm	Proximity
High	Ranked 1	EFUL	0.3926
	Ranked 2	JLIL	0.3896
	Ranked 3	AGIC	0.3776
	Ranked 4	ALAC	0.3740
	Ranked 5	AICL	0.3437
Moderate	Ranked 6	ATIL	0.3388
	Ranked 7	EFUG	0.3360
	Ranked 8	CSIL	0.3289
	Ranked 9	EWIC	0.3147
	Ranked 10	UNIC	0.3015
	Ranked 11	ASIC	0.3014
Low	Ranked 12	IGIL	0.2893
	Ranked 13	HICL	0.2724
	Ranked 14	PINL	0.2297

Table 2 shows the relative performance evaluation of high, moderate and low growth performance of insurance firms in the year 2018. There are five insurance companies that are fall in high growth performance. (EFUL) Company fall into high growth performance because of its profitability, asset utilization and leverage indicators that are relatively high performance from other insurance companies. (JLIL) company fall into high performance because of it leverage, liquidity and stock performance indicators that are relatively high from other insurance companies. (AGIC) Company fall into high performance because of its profitability and growth indicators that are relatively high from other insurance companies. (ALAC) Company fall into high performance because of its liquidity, growth, asset utilization, leverage and stock performance indicators that are relatively high from other insurance companies. (AICL) Company fall into high performance because of its profitability, liquidity and growth indicators that are relatively high from other insurance companies.

There are six insurance companies that fall in moderate growth. (ATIL) Company fall into moderate performance because of its profitability, asset utilization, growth and stock performance relatively moderate performance from other insurance companies. (EFUG) has moderate performance because of its growth and stock performance indicators. (CSIL) The company fall into moderate performance because of its liquidity and growth relatively moderate performance from other insurance companies. (EWIC) The company fall into moderate performance because of its asset utilization and leverage relatively moderate performance from other insurance companies. (UNIC) Company fall into moderate performance because of its leverage and stock performance relatively moderate performance from other insurance companies. (ASIC) Company fall into moderate performance because of its growth and stock performance relatively moderate performance from other insurance companies.

There are three insurance companies that fall in low growth. (IGIL) company fall into low growth performance because of its growth and stock performance indicators that are relatively low performance from other insurance companies. (HICL) company fall into low performance because of its asset utilization and stock performance indicators that are relatively low from other insurance companies. (PINL) Company fall into low performance because of its liquidity and growth indicators that are relatively low from other insurance companies.

The study results suggested that these performance indicators like profitability. leverage, growth and stock performance play an important role in those insurance companies which fall in high growth. The managers of insurance companies should follow these performance indicators to convert their moderate and low growth performance into high growth performance. The managers of moderate growth and low growth insurance companies should see the policies and guidelines of insurance companies that fall into high growth performance and apply those policies and guidelines in their insurance companies to improve their moderate and low growth performance into high growth performance. These policies and guidelines are not only for insurance companies; other sectors have also used these policies and guidelines for the betterment of their company's performance.

Conclusion

In a dynamic world, a country's economic success is dependent on its financial sector, particularly the insurance industry. This analysis is carried out in order to analyze the performance indicators of the benchmarking. The objective of the present study is to rank the insurance companies on the basis of six indicators: profitability, leverage, asset utilization, growth, liquidity and stock performance from the year 2014-2018. The second aim of this paper is to evaluate the relative performance of insurance companies on the basis of high, moderate, and low growth. The process for employing the TOPSIS approach, which focuses on forty-two ratios using six indicators, is GRA. Concerning fourteen insurance companies.

The overall outcome indicates the ranking of 14 insurance firms between 2014 and 2018. The aggregate result displays the ratings of fourteen insurance firms from 2014 to 2018, with ranks ranging based on six factors, including profitability, leverage, asset usage, growth, liquidity, and stock performance. Overall, by analyzing the overall performance of 14 insurance companies to rank the insurance companies as well, GRA offers various findings centred on proximity values to the positive ideal solution in the years 2014 to 2018. In addition, if the insurance companies get an advantage in some proportion of forty-two ratios, insurance companies would also get an edge in overall results. In order to prevent and improve profitability, resource utilization. leverage. liquidity, growth, and profit growth, as well as increase internal operational efficiency and productivity in the management of both human and monetary capital, it is highly recommended that Pakistan's insurance sector identify and treat weaknesses.

Therefore, as an important factor for measuring financial performance on the basis of ranking, pay attention to benchmarking. Major success factors are profitability, stock performance, liquidity and growth, which can be focused on by low growth companies to excel rate their growth. Insurance companies must increase struggle to their operational productivity and efficiency by establishing both human and financial capital. Benchmarking is a monetary performance kev aspect of measurement based on rating in the insurance market. Insurance and stock market must balance the equity in markets as well as companies' profitability. Economic policies must be developed by companies that will not affect profitability negatively.

Directions for future research

The current study only looked at fourteen insurance companies from the financial sector that were chosen based on data availability. The first direction for future research, the current study used 5-year data from 2014-to 2018 or future research is that the same study will be conducted by using more than 5 years. The second direction for future research is to do the same study by using more than forty-two ratios to evaluating the benchmark performance of companies. The third direction for future research is to do the same study on the whole financial sector regarding benchmark performance indicators. The fourth direction for future research is that the same study will be done on the non-financial sector of Pakistan to see the possible comparisons regarding benchmark performance indicators. Finally, the last direction of future research is that the same study must be conducted on Asian countries to possible comparisons regarding see the benchmark performance indicators and relative performance also see the impact of a firm's specific and macroeconomic variables on a firm's profitability.

References

- Alali, M. S., Boyabes, H. S., & Alfailakawi, A. S. (2018). The evaluation of macroeconomic factors influences on the financial performance of general insurance companies listed at the Kuwait Stock Exchange. Int. Aca. J. Eco. Fin. 3, 427-434.
- Ashraf, S. F., Li, C., & Mehmood, B. (2017). A Study of Premium Price Brands with Special Reference to Willingness of Customer to Pay. *International Journal of Academic Research in Business and Social Sciences, 7*(7), 619-639.
- Ashraf, S. F., Li, C., Butt, R., Naz, S., & Zafar, Z. (2019). Education as Moderator: Integrative Effect towards Succession Planning Process of Small Family Businesses. *Pac. Bus. Rev. Int, 11*, 107-123.
- Bajwa, C. A., Arif, I., & Din, W. D. (2018). Benchmarking performance indicators: Evidence from banking sector of Pakistan. *J. Int. Ban. Com. 23*, 1-16.
- Bulgurcu, B. K. (2012). Application of TOPSIS technique for financial performance evaluation of technology firms in Istanbul stock exchange market. *Procedia-Social and Behavioral Sciences, 62,* 1033-1040.
- Çam, A. V., Çam, H., Lutas, S., & Okatan, B. S. (2015). The role of TOPSIS method of determining the financial performance ranking of firms: An application in the Borsa Istanbul. *Int. J. Eco. Res. 6*, 29-38.
- Camp, R. C. (1989). Benchmarking the search for industry best practices that lead to superior performance: *Quality Progress*, January. 61-8.
- Codling, S. (1996). Best practice benchmarking: An international perspective. Butterworth-Heinemann. 6: 66-80
- Dang, T. L, & Nguyen, T. M. H. (2020). Liquidity risk and stock performance during the financial crisis. *Res. Int. Bus. Fin. 52*: 101165.
- Dattakumar, R. & Jagadeesh, R. (2003). A review of literature on benchmarking. Bench. Int. J. 10: 176-209.
- Dogan, M. (2013). Measuring bank performance with Gray Relational Analysis: The case of Turkey. *Ege. Aca. Rev. 13*: 215-225.

- Gitman, L. J. (2004). The principle of managerial finance, Pearson Education Publishers Singapore. 12: 64-67.
- Ho, C. T. (2006). Measuring bank operations performance: an approach based on Grey Relation Analysis. *J. Ope. Res. Soc. 57*: 337-349.
- Ho, C. T., & Wu, Y. S. (2006). Benchmarking performance indicators for banks. *Ben. Int. J.* 13: 147-159.
- Isseveroglu, G. & Sezer, O. (2015). Financial performance of pension companies operating in turkey by topsis analysis method. *Int. J. Aca. Res. Acc. Fin. Man. Sci. 5*: 137–147.
- Jahanshahloo, G. R., Lotfi, F. H., & Izadikhah, M. (2006). Extension of the TOPSIS method for decision-making problems with fuzzy data. *App. Mat. com. 1812,* 1544-1551.
- Kaya, E. O. (2016). Financial performance assessment of non-life insurance companies traded in Borsa Istanbul via grey relational analysis. *Int. J. Eco. Fin. 8*, 277-288.
- Khurram, M. U., Hamid, K. & Javeed, S. A. (2020). Association of Mutual Fund Risk Measures and Return Parameters: A Juxtapose of Ranking for Performance in Pakistan.
- Khurram, M. U., Hamid, K. & Javeed, S. A. (2021). Association of Mutual Fund Risk Measures and Return Parameters: A Juxtapose of Ranking for Performance in Pakistan. *The Journal of Asian Finance, Economics and Business (JAFEB), 8*(2), 25-39.
- Lai, Y. J., Liu, T. Y., & Hwang, C. L. (1994). "TOPSIS for MODM. *Eur. J. Ope. Res. 3*, 486-500.
- Li, C., Ashraf, S. F., Shahzad, F., Bashir, I., Murad, M., Syed, N., & Riaz, M. (2020). Influence of Knowledge Management Practices on Entrepreneurial and Organizational Performance: A Mediated-Moderation Model. *Frontiers in Psychology, 11*.
- Liargovas, P. & Skandalis, K. (2008). Factor affecting firm's financial performance: The Case of Greece. Athens: University of Peloponnese Press. J. aca. Stu. 10, 45-70

- Mediawati, E. & Agustami, S. (2016). Sharia compliance on murabaha financing. *Glo. Con. Bus. Man. Ent. 30*, 110-130.
- Meher, K. C. & Zewudu, T. (2020). Determinants of firm's internals and macroeconomic factors on financial performance of Ethiopian insurers. DLSU. Bus. Eco. Rev. 29: 71-80.
- Nwaorgu, I. A. J., Odesa, O. & Nzoegbu, N. J. (2019). Effect of Director's Tunneling on Assets Utilization: Evidence from Corporate Organizations in Nigeria. J. Eco. Man. Tra. 12: 1-9.
- Ramaditya, M., Supriati, D. & Prasetyo, Z. E. (2019). Company specific characteristics, leverage, share performance (a case study of manufacturing companies in indonesia). *Int. Con. Acc. Res. 2*: 14-30
- Rao, M., Khursheed, A. & Mustafa, F. (2020). The impact of concentrated leverage and

ownership on firm performance: a case in Pakistan. 16: 10-31

- Sałabun, W. (2013). The mean error estimation of TOPSIS method using a fuzzy reference model. J. The. App. Com. Sci. 7: 40-50.
- Sari, T., Baynal, K. & Ergül, O. (2016). Supplier selection with grey relational analysis. Int. J. Eme. Res. Man. Tec. 5: 61-70.
- Shih, K. C., Wu, G. Q. & Huang, Y. P. (1994). The Relation of Grey Information. Chyuan-Chen Technology Co. Publishing: *Taipei, Taiwan. 9*: 30-45
- Still, M. D & Strang, D. (2009). Who does an elite organization emulate? *Adm. Sci. Qua. 54*: 58-89
- Xiong, Y. (2007). Grey relational evaluation of financial situation of listed company. *J. Mod. Acc. Aud. 3*: 41-64.