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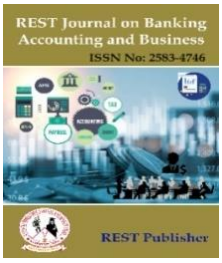

Optimizing Organizational Performance in Dynamic Markets: A TOPSIS Framework for Strategic Human Resource Management

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Abstract: *In today's rapidly changing business environment, organisations must swiftly adapt and align their strategies with external changes. Strategic Human Resource Management (SHRM) plays a crucial role in this adaptation process, helping firms maintain agility and competitive advantage. In dynamic environments, SHRM involves proactively adjusting HR practices to align with evolving organisational goals, technological advancements, market dynamics, and regulatory requirements. This study utilises the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) to conduct a multi-criteria evaluation and ranking of five companies: ABC Corp, XYZ Ltd, QRS Inc, LMN Enterprises, and RST Solutions. The evaluation focuses on four key performance indicators: revenue per employee, employee engagement, compliance adherence, and time-to-fill vacant positions. Results indicate that LMN Enterprises and QRS Inc emerge as top performers, achieving closeness coefficient values of 0.658 and 0.645 respectively. These scores highlight their proximity to the ideal solution, demonstrating exceptional performance across all evaluated metrics. QRS Inc excels with highest revenue per employee, strong employee engagement, robust compliance, and efficient vacancy fulfilment. Meanwhile, LMN Enterprises distinguishes itself with superior revenue per employee, commendable engagement levels, compliance adherence, and efficient hiring processes. ABC Corp secures the third rank with a closeness coefficient of 0.573, reflecting competitive but moderate performance relative to the leaders. In contrast, XYZ Ltd and RST Solutions exhibit significant gaps from optimal benchmarks, ranking fourth and fifth respectively, highlighting areas needing substantial improvement across multiple metrics. This TOPSIS analysis provides a comprehensive and objective evaluation framework, offering insights into organisational strengths, weaknesses, and competitive positioning. It underscores the importance of continuous improvement and strategic decision-making in SHRM to foster innovation, growth, and sustainable competitive advantage in dynamic business environments.*

Keywords: *Strategic Human Resource Management, Dynamic Environments, Multi-Criteria Decision Analysis, Organizational Performance and Competitive Advantage.*

1. INTRODUCTION

Strategic Human Resource Management (HRM) is a specialised area within management studies that focuses on the strategic alignment of human resources with an organisation's long-term goals and objectives. It encompasses the comprehensive management of activities related to attracting, hiring, training, motivating, and retaining employees. The primary objective of Strategic HRM, often referred to as 'people strategy', is to establish a cohesive framework that ensures all aspects of human resource management contribute effectively to organisational success. This involves integrating HR practices with business strategies to promote behaviours and create an environment conducive to achieving performance objectives. Strategic HRM aims to enhance organisational flexibility, foster innovation, and ultimately achieve competitive advantage. By aligning human resources with strategic business goals, it enables organisations to adapt more effectively to changes in the global business environment characterized by rapid and complex shifts. Human resource management (HRM) professionals use the term "strategic human resource

management" to emphasise the idea that effective HRM practices contribute significantly to overall business effectiveness. However, the interpretation of "strategic HRM" has evolved over time and varies across different cultural contexts and disciplinary perspectives among HRM scholars. The development and implementation of an HRM system are not solely the responsibility of an executive planning committee; rather, it involves active participation from various organisational members who operationalise the system in their daily activities. The effectiveness of an HRM system becomes apparent through social interactions among these members, encompassing those who formulate, communicate, and respond to its elements within the organisation. Traditionally, HR professionals would design formal HRM philosophies, policies, and processes in alignment with business plans. Supervisors then translated these policies into practical daily practices, while employees reacted based on their experiences of how they were managed. Over time, these roles have evolved towards greater collaboration and partnership among the three main actors. Today, HRM practices are increasingly seen as a collaborative effort where HR professionals, supervisors, and employees work together to create and maintain an effective HRM system. This shift highlights the importance of mutual understanding, communication, and alignment across all levels of the organisation. By fostering a collaborative approach, organisations can better leverage HRM practices to enhance employee satisfaction, productivity, and ultimately contribute to achieving strategic business goals. The universalistic perspective in human resource management (HRM) offers a straightforward approach by assuming a direct and universal relationship between specific HRM practices and organisational outcomes. This perspective posits that certain HRM practices, when applied universally across different contexts, can positively influence individual behaviours and ultimately contribute to achieving the strategic goals of a business (Delery and Doty, 1996). Strategic human resource management (SHRM) encompasses all the activities and deployments within an organisation aimed at aligning human resources with strategic business objectives. Over the past decade, SHRM has evolved through various stages of development and refinement. Critiques of SHRM often focus on the perceived "black box" through which HRM practices are believed to impact organisational performance. This concept suggests that while HRM practices are seen to influence outcomes, the mechanisms or processes underlying this influence are not clearly specified or understood. Another area of critique concerns the conceptualisation and measurement of fit or alignment between HRM practices and organisational goals. Critics argue that more precise methods are needed to assess how well HRM practices align with and support strategic objectives. Additionally, there is a call to identify the boundary conditions that influence the effectiveness of "high performance" HRM systems—factors that determine when and under what circumstances these systems are most effective. These critiques underscore the ongoing debate and refinement within the field of SHRM, highlighting the need for clearer theoretical frameworks and empirical research to better understand how HRM practices can optimally contribute to organisational success in diverse and dynamic business environments. Developing a strategic HR plan begins with conducting a comprehensive SWOT analysis to evaluate an organisation's strengths, weaknesses, opportunities, and threats. This analysis provides valuable insights for setting realistic goals that capitalise on strengths and address areas needing improvement. The significance of human resource management (HRM) in effectively implementing organisational strategy has long been acknowledged. HRM practices that equip employees with skills, incentives, information, and decision-making responsibilities have been linked to enhanced business performance (Abdul Hamid, 1996). A human resources strategy map outlines an organisation's strategic objectives and the causal relationships that lead to achieving desired outcomes. Strategic HR initiatives are forward-thinking and focused on adding value. Examples include building a pipeline of high-quality candidates, managing training and certification programmes, and fostering employee engagement and productivity. A strategic vision enables HR to anticipate future workforce requirements, identify critical skills and competencies, and develop initiatives to maintain the organisation's competitive advantage in the market. IES (Institute for Employment Studies) is an independent, non-partisan international research and consultancy centre specialising in public employment policy and HR management. It collaborates with employers across sectors, government departments, agencies, professional bodies, and associations. IES serves as a centre of expertise and practical experience in employment and training policy, labour market operations, and HR planning and development. Operating as a not-for-profit organisation, IES provides valuable insights and guidance to support effective HR practices and policy-making.

2. METHODOLOGY

The TOPSIS method is widely used in Multiple Criteria Decision Making (MCDM) to evaluate alternatives across various practical scenarios such as financial stability assessment, economic comparisons, and production method evaluations. However, it is important to recognise its limitations. One significant issue with TOPSIS is the potential for rank reversal, where the preference order among alternatives changes if a choice is added or removed from consideration. Total rank reversal can occur, completely reversing the priorities of once-favoured options to

unfavourable ones. In MCDM, the goal is to assess alternatives comprehensively across multiple criteria, often competing against each other. Given the complexity of real-world decision contexts, it's challenging for any single alternative to satisfy all criteria simultaneously. Therefore, a balanced approach is sought, aligning with decision objectives and guided by TOPSIS's principle of selecting alternatives closest to the Negative Ideal Solution (NIS) resembling the Positive Ideal Solution (PIS), determined by a closeness metric. Despite its benefits like ease of use and simultaneous evaluation of multiple criteria, TOPSIS has inherent limitations. Subjective weighting of criteria can introduce bias, and its straightforward approach may not sufficiently capture complex interactions among criteria. Moreover, TOPSIS assumes independence among criteria, a condition that may not hold in practical applications. Its lack of a strong mathematical foundation raises concerns about theoretical robustness, and handling large datasets can pose computational challenges. Furthermore, TOPSIS does not account for uncertainty, limiting its applicability in uncertain decision environments. While TOPSIS remains advantageous in decision-making processes, decision-makers should carefully weigh these advantages and limitations to make informed choices when applying TOPSIS in real-world decision contexts.

3. ANALYSIS AND DISCUSSION

TABLE 1. Data Set

Company Name	Revenue per Employee (in thousands)	Employee Engagement Score (out of 10)	Compliance Score (out of 100)	Time-to-Fill Vacant Positions (in weeks)
ABC Corp	500	8	95	4
XYZ Ltd	400	7	85	6
QRS Inc	583.3	9	92	5
LMN Enterprises	800	8	88	7
RST Solutions	294.1	6	80	8

Table 1 provides a comparison of five companies based on four key metrics: revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. ABC Corp generates £500,000 per employee, has an employee engagement score of 8 out of 10, a compliance score of 95 out of 100, and takes 4 weeks to fill vacant positions. XYZ Ltd, with a lower revenue per employee at £400,000, has an engagement score of 7, a compliance score of 85, and takes 6 weeks to fill positions. QRS Inc leads in revenue per employee at £583,300 and has the highest engagement score of 9, alongside a compliance score of 92 and a 5-week period to fill vacancies. LMN Enterprises tops revenue per employee at £800,000, shares an engagement score of 8 with ABC Corp, but has a lower compliance score of 88, with a 7-week hiring period. Lastly, RST Solutions shows the lowest revenue per employee at £294,100, the lowest engagement score of 6, and a compliance score of 80, with the longest time-to-fill vacancies at 8 weeks.

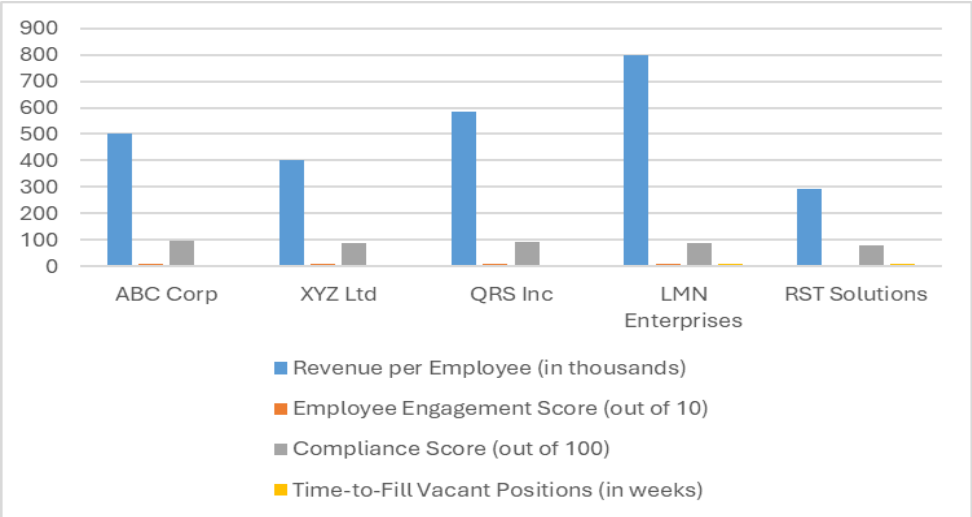

FIGURE 1. Data set

Figure 1 illustrates a comparison of five companies using four key metrics: revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. ABC Corp achieves £500,000 per employee, has an employee engagement score of 8 out of 10, a compliance score of 95 out of 100, and requires 4 weeks to fill vacant positions. XYZ Ltd, with a lower revenue per employee at £400,000, has an engagement score of 7, a compliance score of 85, and takes 6 weeks to fill positions. QRS Inc excels with a revenue per employee of £583,300 and the highest engagement score of 9, coupled with a compliance score of 92 and a 5-week period to fill vacancies. LMN Enterprises leads with the highest revenue per employee at £800,000, matches ABC Corp with an engagement score of 8, but has a lower compliance score of 88 and a 7-week hiring period. Finally, RST Solutions records the lowest revenue per employee at £294,100, the lowest engagement score of 6, and a compliance score of 80, with the longest time-to-fill vacancies at 8 weeks.

TABLE 2. Normalized Data

Company Name	Revenue per Employee (in thousands)	Employee Engagement Score (out of 10)	Compliance Score (out of 100)	Time-to-Fill Vacant Positions (in weeks)
ABC Corp	0.4115	0.4666	0.4819	0.2902
XYZ Ltd	0.3292	0.4082	0.4312	0.4353
QRS Inc	0.4800	0.5249	0.4667	0.3627
LMN Enterprises	0.6583	0.4666	0.4464	0.5078
RST Solutions	0.2420	0.3499	0.4058	0.5804

Table 2 presents the normalized data of five companies using the TOPSIS method, which helps in ranking and comparing multiple entities based on various criteria. The criteria include revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. The values are normalized to bring them onto a comparable scale. ABC Corp has a normalized revenue per employee score of 0.411, an employee engagement score of 0.467, a compliance score of 0.482, and a time-to-fill vacant positions score of 0.290. XYZ Ltd shows slightly lower scores with a revenue per employee of 0.329, an employee engagement score of 0.408, a compliance score of 0.431, and a time-to-fill score of 0.435. QRS Inc has higher normalized values with a revenue per employee of 0.480, the highest employee engagement score of 0.525, a compliance score of 0.467, and a time-to-fill score of 0.363. LMN Enterprises stands out with the highest normalized revenue per employee at 0.658, an engagement score of 0.467, a compliance score of 0.446, and a time-to-fill score of 0.508. Lastly, RST Solutions has the lowest scores in most categories, with a revenue per employee of 0.242, an engagement score of 0.350, a compliance score of 0.406, but the highest time-to-fill score at 0.580.

TABLE 3. weight

Company Name	Revenue per Employee (in thousands)	Employee Engagement Score (out of 10)	Compliance Score (out of 100)	Time-to-Fill Vacant Positions (in weeks)
ABC Corp	0.25	0.25	0.25	0.25
XYZ Ltd	0.25	0.25	0.25	0.25
QRS Inc	0.25	0.25	0.25	0.25
LMN Enterprises	0.25	0.25	0.25	0.25
RST Solutions	0.25	0.25	0.25	0.25

Table 3 shows the weight distribution used in the TOPSIS method for normalizing data across four key metrics: revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. Each company is assigned equal weights for each criterion, with a weight of 0.25. This equal distribution implies that no single metric is given more importance than the others in the analysis. Specifically, for ABC Corp, XYZ Ltd, QRS Inc, LMN Enterprises, and RST Solutions, the weights for revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions are all equally set at 0.25. This approach ensures that the comparison between companies is balanced, with each metric contributing equally to the overall evaluation. By

assigning equal weights, the analysis avoids bias towards any single aspect of company performance, providing a fair and holistic view of each company's standing based on the selected criteria.

TABLE 4. weighted normalized decision matrix

Company Name	Revenue per Employee (in thousands)	Employee Engagement Score (out of 10)	Compliance Score (out of 100)	Time-to-Fill Vacant Positions (in weeks)
ABC Corp	0.1029	0.1166	0.1205	0.0725
XYZ Ltd	0.0823	0.1021	0.1078	0.1088
QRS Inc	0.1200	0.1312	0.1167	0.0907
LMN Enterprises	0.1646	0.1166	0.1116	0.1270
RST Solutions	0.0605	0.0875	0.1015	0.1451

Table 4 presents the weighted normalized decision matrix for five companies, calculated using the TOPSIS method. The metrics evaluated are revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. The values in the table reflect the weights applied to the normalized data, highlighting each company's performance in these areas. ABC Corp has a weighted revenue per employee of 0.103, an employee engagement score of 0.117, a compliance score of 0.120, and a time-to-fill score of 0.073. These values indicate a balanced but moderate performance across all metrics. XYZ Ltd shows slightly lower values, with a weighted revenue per employee of 0.082, an engagement score of 0.102, a compliance score of 0.108, and a time-to-fill score of 0.109, reflecting moderate performance but higher time-to-fill vacancies. QRS Inc excels with the highest weighted values in revenue per employee (0.120) and employee engagement (0.131), along with a compliance score of 0.117 and a time-to-fill score of 0.091, demonstrating strong overall performance. LMN Enterprises has the highest weighted revenue per employee at 0.165 and significant time-to-fill score of 0.127, along with a moderate engagement score of 0.117 and compliance score of 0.112. Finally, RST Solutions shows the lowest weighted revenue per employee at 0.061 and employee engagement at 0.087, but the highest time-to-fill score at 0.145, indicating areas needing improvement except for the time-to-fill metric.

TABLE 5. A+ and A-

A+	0.1646	0.1312	0.1015	0.0725
A-	0.0605	0.0875	0.1205	0.1451

Table 5 presents the ideal best (A+) and ideal worst (A-) values for five companies based on four key performance metrics: revenue per employee, employee engagement score, compliance score, and time-to-fill vacant positions. These ideal values are used to gauge the performance of each company in relation to the optimal and least desirable benchmarks. The ideal best (A+) values represent the highest or most favourable performance metrics. For revenue per employee, the ideal best value is 0.1646, indicating the highest efficiency in generating revenue per employee. The employee engagement score at its best is 0.1312, reflecting the highest level of employee satisfaction and involvement. The compliance score of 0.1015 denotes the highest adherence to regulatory and company standards. The time-to-fill vacant positions is ideally the shortest at 0.0725, indicating the most efficient recruitment process. Conversely, the ideal worst (A-) values mark the lowest or least favourable performance metrics. The worst revenue per employee is 0.0605, signifying poor revenue generation efficiency. The employee engagement score at its lowest is 0.0875, showing minimal employee satisfaction. The compliance score at its worst is 0.1205, reflecting lower adherence to compliance standards. The longest time-to-fill vacant positions, deemed the least efficient, is 0.1451, indicating a slow recruitment process.

TABLE 6. SI Plus and Si Negative

Company Name	SI Plus	Si Negative
ABC Corp	0.066208472	0.088925695
XYZ Ltd	0.094752529	0.046517335
QRS Inc	0.050477791	0.091804315
LMN Enterprises	0.057236791	0.109954826
RST Solutions	0.134195331	0.019023527

Table 6 illustrates the separation of each company from the ideal solution, using two metrics: Si+ (distance from the ideal best) and Si- (distance from the ideal worst). These values are crucial in the TOPSIS method for determining how close each company is to the optimal performance. ABC Corp has a Si+ value of 0.0662 and an Si- value of 0.0889. This indicates that ABC Corp is relatively close to the ideal best solution and moderately distanced from the ideal worst, suggesting a strong overall performance. XYZ Ltd shows a Si+ value of 0.0948, indicating a greater distance from the ideal best compared to ABC Corp. Si- value of 0.0465 suggests it is closer to the ideal worst, reflecting weaker performance relative to the other companies. QRS Inc, with a Si+ value of 0.0505, is the closest to the ideal best solution, and its Si- value of 0.0918 also shows a significant distance from the ideal worst, highlighting excellent performance. LMN Enterprises has a Si+ value of 0.0572, showing proximity to the ideal best, and a Si- value of 0.1100, indicating it is the farthest from the ideal worst. This suggests strong performance, especially in comparison to other companies. Lastly, RST Solutions has the highest Si+ value of 0.1342, indicating it is the furthest from the ideal best solution. Its Si- value of 0.0190 shows it is very close to the ideal worst, reflecting the weakest overall performance among the companies evaluated.

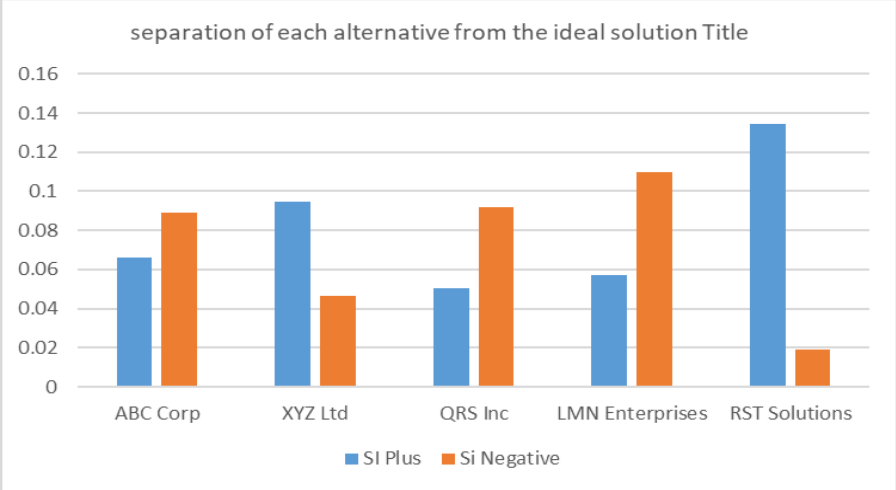

FIGURE 2. SI Plus and Si Negative

Figure 2 displays the separation of each company from the ideal best (SI Plus) and ideal worst (Si Negative) solutions using the TOPSIS method. This separation helps in determining how close each company is to the optimal performance and how far they are from the least desirable performance. ABC Corp has an SI Plus value of 0.0662 and an Si Negative value of 0.0889. This indicates that ABC Corp is relatively close to the ideal best solution and moderately distant from the ideal worst, suggesting balanced overall performance. XYZ Ltd shows an SI Plus of 0.0948 and an Si Negative of 0.0465, signifying that it is closer to the ideal worst than the ideal best, reflecting relatively weaker performance in comparison to the other companies. QRS Inc, with an SI Plus of 0.0505 and an Si Negative of 0.0918, is very close to the ideal best and considerably far from the ideal worst. This denotes strong performance, closely aligning with optimal metrics. LMN Enterprises has an SI Plus of 0.0572 and an Si Negative of 0.1100, showing proximity to the ideal best and a significant distance from the ideal worst, indicating high performance across the metrics. RST Solutions, with an SI Plus of 0.1342 and an Si Negative of 0.0190, is furthest from the ideal best and closest to the ideal worst, highlighting areas that need substantial improvement.

TABLE 7. Ci and Rank

Company Name	Ci	Rank
ABC Corp	0.573217988	3
XYZ Ltd	0.329279959	4
QRS Inc	0.645227413	2
LMN Enterprises	0.657657529	1
RST Solutions	0.124159177	5

Table 7 provides the Closeness Coefficient (Ci) values and the corresponding ranks for each company, calculated using the TOPSIS method. The Closeness Coefficient measures how close each company is to the ideal solution, with higher values indicating better performance. LMN Enterprises achieves the highest Closeness Coefficient value of 0.658, ranking it 1st among the companies. This indicates that LMN Enterprises is the closest to the ideal best solution, signifying top performance across the evaluated metrics. QRS Inc follows closely with a Ci value of 0.645, securing the 2nd rank. This high Ci value also reflects strong performance, nearly matching that of LMN Enterprises. ABC Corp has a Ci value of 0.573, placing it 3rd. This indicates a moderate level of performance, better than some but not as close to the ideal best as LMN Enterprises and QRS Inc. XYZ Ltd is ranked 4th with a Ci value of 0.329. This relatively lower Closeness Coefficient suggests that XYZ Ltd's performance is further from the ideal best compared to the top three companies. RST Solutions has the lowest Closeness Coefficient value of 0.124, ranking 5th. This indicates that RST Solutions is the furthest from the ideal best solution, highlighting significant areas for improvement.

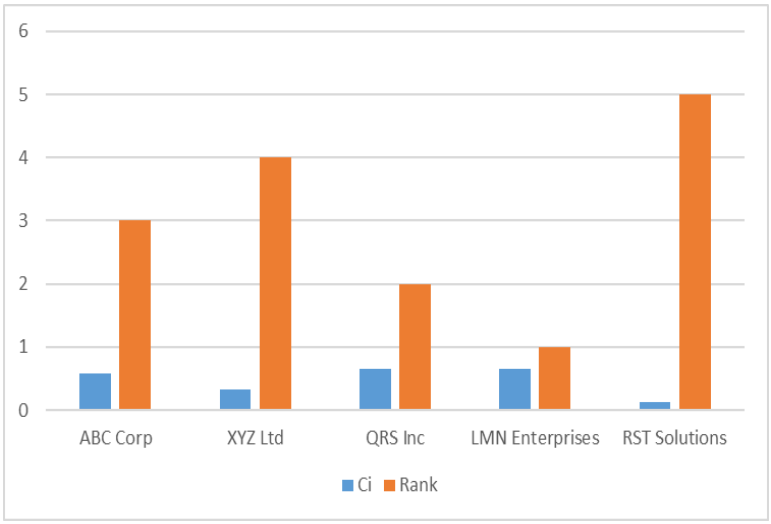

FIGURE 3. Ranking

Figure 3 presents the Closeness Coefficient (Ci) values and corresponding rankings for each company, calculated using the TOPSIS method. The Ci measures how closely each company approaches the ideal solution, with higher values indicating superior performance. LMN Enterprises achieves the highest Ci value of 0.658, securing the top rank among the companies. This indicates that LMN Enterprises performs closest to the ideal solution, demonstrating outstanding performance across all evaluated metrics. Following closely is QRS Inc with a Ci of 0.645, earning the 2nd rank. This substantial Ci value reflects strong performance, almost matching that of LMN Enterprises. ABC Corp holds the 3rd position with a Ci value of 0.573, indicating a moderate level of performance better than some competitors but not as close to the ideal as LMN Enterprises and QRS Inc. XYZ Ltd ranks 4th with a Ci of 0.329. This lower Closeness Coefficient suggests that XYZ Ltd's performance is notably distant from the ideal standard compared to the top three companies. RST Solutions records the lowest Ci value at 0.124, placing it 5th. This highlights RST Solutions as being furthest from the ideal solution, indicating significant areas for improvement. In summary, the rankings underscore LMN Enterprises and QRS Inc as leaders in performance, while RST Solutions and XYZ Ltd face considerable gaps in achieving optimal standards. The results from Figure 3 indicate that LMN Enterprises and QRS Inc lead in performance, achieving the highest Closeness Coefficient values of 0.658 and 0.645 respectively. These scores signify their proximity to the ideal solution, demonstrating top-tier performance across evaluated metrics. ABC Corp follows with a Ci value of 0.573, indicating a moderate level of performance. In contrast, XYZ Ltd and RST Solutions lag behind with Ci values of 0.329 and 0.124 respectively, showing significant room for improvement to reach optimal standards as identified by the TOPSIS method.

4. CONCLUSION

Strategic Human Resource Management (SHRM) in dynamic settings entails adjusting HR practices to match evolving organisational objectives and external conditions. It prioritises flexibility, foreseeing shifts, and modifying HR strategies to foster innovation, expansion, and competitive edge. Essential elements encompass adaptable workforce planning, ongoing education programmes, and proactive talent oversight to address evolving needs. SHRM in dynamic

environments also stresses cultivating a resilient culture and preparing staff for change, ensuring HR policies remain responsive to technological advancements, global market shifts, and regulatory updates, thereby upholding organisational efficiency and flexibility. The TOPSIS analysis evaluates and ranks five companies - ABC Corp, XYZ Ltd, QRS Inc, LMN Enterprises, and RST Solutions - based on four key performance indicators: revenue per employee, employee engagement, compliance, and time-to-fill vacancies. According to the analysis, LMN Enterprises and QRS Inc emerge as the top performers, achieving closeness coefficient values of 0.658 and 0.645 respectively. These scores indicate their proximity to the ideal solution, highlighting strong performance across all evaluated areas. QRS Inc leads with the highest revenue per employee and employee engagement metrics, along with strong compliance and efficient vacancy filling. LMN Enterprises excels in revenue per employee and demonstrates commendable engagement, compliance, and efficient hiring. ABC Corp secures third place with a closeness coefficient of 0.573, reflecting competitive performance relative to the leaders. It shows solid revenue generation per employee, high engagement, compliance ratings, and efficient vacancy fulfillment. In contrast, XYZ Ltd and RST Solutions rank fourth and fifth respectively, with significant gaps from optimal benchmarks. XYZ Ltd's closeness coefficient of 0.329 indicates areas needing improvement across multiple metrics. RST Solutions faces the most challenges with a low closeness coefficient of 0.124, showing lagging performance in revenue per employee, employee engagement, compliance, and vacancy filling. The TOPSIS method proves valuable for its comprehensive and objective evaluation framework, offering insights into each company's strengths, weaknesses, and competitive positioning. This analysis informs strategic decision-making for companies aiming for continuous improvement and sustainable growth. Top performers can leverage strengths and identify areas for optimisation, while underperforming entities gain insights for targeted interventions in human resource management, operational efficiencies, and overall competitiveness.

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