



Performance Evaluation of Employees and Leaders Using the Analytical Hierarchy Process

Luthfi Daffa Hadi Pratama^{1*}, Renny Rochani²

^{1,2} Industrial Engineering Undergraduate Program, Faculty of Engineering,
Sebelas Maret University, Surakarta, Indonesia

*Penulis Korespondensi: luthfi.dhp@student.uns.ac.id, rennyrochani@staff.uns.ac.id

Abstract. *Purpose – This study aims to develop a structured and objective performance evaluation system for employees and leaders in a company using the Analytical Hierarchy Process (AHP) method. Design/methodology/approach – This research employs a quantitative approach. Data were collected through pairwise comparison questionnaires using the Saaty (1990) scale, which were developed based on the Analytical Hierarchy Process (AHP) method. Respondents were selected using purposive sampling. The collected data were then analyzed to determine the priority weights of each criterion and to assess the consistency of respondents' judgments. The study was conducted at Cahaya Prima 83 company in Indonesia. Findings – The results show that AHP effectively determines the priority weights of performance evaluation criteria. For employees, the key criteria include attendance, attitude, discipline, and responsibility. For leaders, the criteria include leadership, decision-making, fairness, and responsibility. The method produces a structured ranking system that enhances objectivity and transparency in performance evaluation. Practical implications – The implementation of AHP provides companies with a systematic and reliable decision-making tool for evaluating employees and leaders, which can improve motivation, productivity, and overall organizational performance. Originality/value – This study contributes to the performance management literature by integrating employee and leader evaluation simultaneously using AHP within a company context, which remains relatively underexplored..*

Keywords: *Performance Evaluation; Company; Analytical Hierarchy Process (AHP); Leadership; Employee Performance; Decision Making*

Abstrak. Tujuan – Penelitian ini bertujuan untuk mengembangkan sistem evaluasi kinerja karyawan dan pimpinan suatu perusahaan secara terstruktur dan obyektif dengan menggunakan metode Analytical Hierarchy Process (AHP). Desain/metodologi/pendekatan – Penelitian ini menggunakan pendekatan kuantitatif. Data dikumpulkan melalui kuesioner perbandingan berpasangan dengan menggunakan skala Saaty (1990) yang dikembangkan berdasarkan metode Analytical Hierarchy Process (AHP). Responden dipilih dengan menggunakan purposive sampling. Data yang terkumpul kemudian dianalisis untuk menentukan bobot prioritas setiap kriteria dan menilai konsistensi penilaian responden. Penelitian dilakukan pada perusahaan Cahaya Prima 83 di Indonesia. Temuan – Hasilnya menunjukkan bahwa AHP secara efektif menentukan bobot prioritas kriteria evaluasi kinerja. Bagi pegawai, kriteria utamanya meliputi kehadiran, sikap, kedisiplinan, dan tanggung jawab. Bagi pemimpin, kriterianya meliputi kepemimpinan, pengambilan keputusan, keadilan, dan tanggung jawab. Metode tersebut menghasilkan sistem pemeringkatan terstruktur yang meningkatkan objektivitas dan transparansi dalam evaluasi kinerja. Implikasi Praktis – Penerapan AHP memberi perusahaan alat pengambilan keputusan yang sistematis dan andal untuk mengevaluasi karyawan dan pemimpin, yang dapat meningkatkan motivasi, produktivitas, dan kinerja organisasi secara keseluruhan. Orisinalitas/nilai – Penelitian ini berkontribusi pada literatur manajemen kinerja dengan mengintegrasikan evaluasi karyawan dan pemimpin secara bersamaan menggunakan AHP dalam konteks perusahaan, yang masih relatif kurang dieksplorasi.

Kata Kunci: Evaluasi Kinerja; Perusahaan; Proses Hirarki Analitik (AHP); Kepemimpinan; Kinerja karyawan; Pengambilan Keputusan

1. INTRODUCTION

Human resource management (HRM) has long been regarded as a cornerstone of organizational strategy, particularly in building and sustaining competitive advantage. Organizations today are not merely tasked with recruiting qualified individuals they must also invest in ongoing competency development through structured education, training, and growth programs, all of which need to be backed by sound and effective management practices (Fridan & Maamari, 2024). Against this backdrop, employee performance stands out as one of the most telling indicators of organizational health, since it directly mirrors how well an organization is actually meeting its goals (Shah et al., 2025; Khushk et al., 2025).

That said, employee performance alone does not tell the whole story. Leadership performance is just as central to organizational success, if not more so in many contexts. What makes leadership complex is that it cannot simply be pinned down to individual traits or habits. Rather, it takes shape through the ongoing, dynamic interplay between leaders and the people they work with, always embedded within a shifting organizational environment (Raj & Krishnan, 2025). In other words, leadership is less about who a person is and more about how they engage and that engagement is always situational (Belsito & Reutzel, 2020).

Given this complexity on both fronts, it becomes clear that organizations need a performance evaluation system robust enough to cover both employees and leaders together. When done well, such a system makes it far easier to assess contributions objectively, cut down on the guesswork that tends to creep into managerial decisions, and ensure that what people are doing day-to-day actually lines up with where the organization wants to go. Combining both dimensions in one evaluation framework is, in that sense, not just useful it is necessary for building a genuinely effective organization over the long term (Nguyen et al., 2026).

Although the volume of research on performance management continues to grow, most studies still treat employee performance and leadership effectiveness as separate topics. Very few attempt to combine the two within an integrated evaluation framework.

On top of that, while AHP has found wide application across many different decision-making fields, its use in HR performance evaluation particularly in the simultaneous assessment of both employees and leaders within a company remains quite limited. Most AHP-based HR studies only evaluate one level at a time and rarely grapple with the messy realities of small organizations, such as employees with limited technological literacy or managers juggling multiple roles (Zaid et al., 2025).

This study attempts to fill these gaps by proposing an integrated AHP-based model that evaluates both employee and leadership performance at the same time. The novelty here lies in three things. First, the study builds a dual-level framework that brings together both dimensions in one coherent structure. Second, this study takes the corporate context seriously factoring in real operational constraints and workforce realities that many models conveniently ignore. Third, and perhaps most practically, it offers a tool that is structured enough to be transparent and quantifiable, while still being usable by organizations with limited analytical resources.

Taken together, these contributions extend the application of AHP in the HRM literature while offering something that MSMEs can actually put to use a scalable, adaptable framework for improving how performance is measured and, ultimately, how the organization performs.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 Human Resource Management

Human Resource Management (HRM) is far more than an administrative function it sits at the heart of how organizations grow and sustain themselves over time. By shaping organizational culture, building employee capacity for innovation, and keeping people genuinely engaged, HRM creates the conditions under which an organization can actually thrive. At its core, HRM is about making sure that people are not just available, but that they are equipped and motivated to contribute. This means taking recruitment, training, career development, and retention seriously as interconnected investments, not isolated tasks (Khushk et al., 2025; Nguyen et al., 2026).

2.2 Employee Performance

At its simplest, employee performance tells an organization how much each person is actually contributing to what the organization is trying to accomplish. Those who perform well tend to be recognized and rewarded, while those who consistently fall short may face reassignment, changes in compensation, or, in more serious cases, separation (Shah et al., 2025). This cause-and-effect relationship is what makes performance evaluation so high-stakes it directly shapes people's careers and the organization's ability to hold itself accountable.

Raising performance levels is not accidental. It requires deliberate effort building a work environment that supports rather than undermines people, continuously developing skills and competencies, and removing barriers to productivity. When organizations get this right, the results show up in goal attainment that is faster, more consistent, and more sustainable. It is little wonder, then, that employee performance is so consistently cited as one of the central drivers of long-term organizational success (Dhoopar et al., 2022).

2.3 Leadership Performance

Leadership is one of those variables that quietly shapes everything else. When it is done well, employees feel more confident, more motivated, and ultimately more productive. Leaders hold a unique position in any organization they are the ones responsible not just for planning and directing activities, but for creating the kind of environment where people actually want to perform at their best. Taking that responsibility seriously is what separates effective leaders from merely adequate ones (Mohammed & AL-Abrow, 2023).

It would be a mistake, however, to reduce leadership effectiveness to technical competence. The ability to influence, inspire, and guide people toward shared goals draws on something broader and more relational. This is precisely why leadership performance has such a significant impact not just on how employees perform individually, but on organizational performance as a whole it creates a multiplier effect that few other management variables can match (Belsito & Reutzel, 2020).

2.4 Analytical Hierarchy Process (AHP)

The Analytical Hierarchy Process (AHP) was developed by Thomas L. Saaty (1990) as a way to bring structure and logic to decisions that would otherwise be

overwhelmed by complexity. The core idea is to break a big, messy problem into a hierarchy of smaller, more manageable components goals, criteria, and alternatives and then work through them systematically using defined criteria, pairwise comparisons, and a ranking procedure (Zaid et al., 2025).

The engine of AHP is pairwise comparison. Rather than asking decision-makers to rank everything at once, it asks them to compare elements two at a time using a scale from 1 to 9 where 1 means two elements are equally important and 9 means one is overwhelmingly more important than the other. From these comparisons, priority weights emerge that make the final decision transparent, traceable, and far less susceptible to personal bias than most traditional approaches.

What makes AHP particularly useful in organizational contexts is that it does not pretend decisions are purely objective. It actually builds subjective expert judgment into the process, allowing different perspectives and considerations to coexist within the same analytical structure (Abu Ghazaleh & Zabadi, 2020). The result is a method that is simultaneously structured and flexible and that combination is exactly what gives AHP its credibility when it comes to determining priority weights in complex settings.

2.5 Employee and Leadership Performance Evaluation Criteria

Performance evaluation only works when it rests on criteria that are genuinely clear, measurable, and contextually relevant. Without that foundation, evaluations can quickly drift into territory that is more about perception than reality and that undermines both the process and the people subject to it. A well-designed evaluation framework needs to account for both quantitative and qualitative dimensions, because performance in practice is never just one or the other (Shah et al., 2025).

Performance evaluations of both employees and leaders are a critical process that requires comprehensive analysis to ensure the effective achievement of organizational goals. Such evaluations have a direct impact on individual performance; therefore, they must be based on clear and well-defined criteria that encompass both quantitative and qualitative dimensions. These criteria were derived from a review of prior research literature discussing criteria for assessing the performance of employees and leaders. The

following criteria were used as the basis for evaluating the performance of employees and leaders in this study:

C1: Presence.

- Absenteeism Impact
- Attendance of Consistency

C2: Attitude.

- Teamwork
- Ethical Behaviour, Emphaty, and Professional Courtesy

C3: Discipline

- Adherence to Organizational Policies
- Work Discipline

C4: Responsibility

- Work Quality
- Task Completion Reliability

In addition to employee performance evaluation, the following criteria are utilized to assess leadership performance based on employees' perceptions. These criteria serve as the primary reference framework for evaluating leaders within this study:

C1: Leadership.

- Employee Direction Capability
- Employee Motivation Capability

C2: Decision Making.

- Accuracy of Decision Making
- Consistency in Decision Making

C3: Justice.

- Equitable Treatment of Employees

- Objectivity in Employee Performance Assessment

C4:Responsibility.

- Managerial Involvement in Operational Activities

3. METODE PENELITIAN

3.1 Research Design and Sample

This study uses a quantitative research design, with AHP as the primary analytical method. Data were gathered through structured pairwise comparison questionnaires built around the Saaty scale and then processed through the AHP procedure to derive priority weights for each performance criterion, while also checking whether respondents' judgments were internally consistent. The overall approach was chosen because it allows for a systematic and objective evaluation of both employee and leadership performance something that more qualitative approaches often struggle to deliver with the same degree of precision (Zaid et al., 2025).

This approach enables a structured and objective evaluation of both employee and leadership performance. The study involves 8 employees and 6 leaders as respondents, selected based on their involvement in organizational activities. Employees evaluate leadership performance, while leaders assess employee performance.

3.2 Measurement Instruments

The primary measurement instrument used in this study is a structured questionnaire based on the Analytical Hierarchy Process (AHP) framework. The questionnaire employs the Saaty scale, developed by Thomas L. Saaty (1990), to perform pairwise comparisons among criteria.

The Saaty scale uses a numerical range from 1 to 9 to represent the relative importance of one element over another. Each scale value reflects a specific level of preference, as follows:

- **1 (Equal importance)** – Two elements are equally important
- **3 (Moderate importance)** – One element is slightly more important than the other
- **5 (Strong importance)** – One element is strongly more important

- **7 (Very strong importance)** – One element is very strongly preferred
- **9 (Extreme importance)** – One element is absolutely more important
- **Intermediate values (2, 4, 6, 8)** are used to represent compromise judgments between the adjacent scales.

This scaling system allows respondents to systematically evaluate the relative importance of each criteria, enabling the calculation of priority weights. The use of the Saaty scale ensures consistency, transparency, and reliability in the decision-making process within the AHP framework.

3.3 Data Analysis Method

The data analysis in this study The data analysis in this study employs a quantitative analysis, the Analytical Hierarchy Process (AHP) is employed to determine the priority weights of the evaluation criteria. The AHP procedure consists of the following steps:

1. Hierarchy Structure Development

The first step in the Analytical Hierarchy Process (AHP) is constructing a hierarchical structure that represents the decision problem. This hierarchy consists of several levels, including the overall goal at the top level, followed by evaluation criteria and sub-criteria, and finally the decision alternatives at the lowest level.

This structured decomposition enables complex problems to be analyzed systematically by breaking them down into simpler and more manageable components, thereby facilitating more accurate and consistent decision-making. In this study, the hierarchical structure is developed for both employee and leadership performance evaluation, incorporating the respective criteria and alternatives relevant to each group.

2. Pairwise Comparison Matrix

Respondents compare criteria in pairs using the Saaty scale, resulting in a comparison matrix $A = [a_{ij}]$, where a_{ij} represents the relative importance of element i over j .

3. Geometric Mean Calculation

The Geometric Mean (GM) is calculated as follows:

$$GM = \sqrt[n]{X_1 \times X_2 \times \dots \times X_n}$$

- GM represents the geometric mean value used in the pairwise comparison matrix.
- $X_1, X_2, \dots, X_n$ denote the judgments provided by expert 1 through expert n .
- n is the total number of experts involved in the evaluation.

4. Normalization of the Matrix

The normalized value of the pairwise comparison matrix is calculated as follows:

$$\alpha'_{ij} = \frac{\alpha_{ij}}{\sum \alpha_{ij}}$$

- α_{ij} represents the comparison value between criteria i and criteria j .
- $\sum \alpha_{ij}$ denotes the total value of column j in the comparison matrix.
- α'_{ij} is the normalized value of the matrix.

5. Calculating the Priority Weights of Each Criteria

The priority weight is calculated using the following formula:

$$W_j = \frac{\sum \alpha'_{ij}}{n}$$

- represents the priority weight of criteria j .
- $\sum \alpha'_{ij}$ denotes the total value of row i in the normalized matrix.
- n is the number of criteria considered in this study.

6. Calculating Vector $[X]$

The vector $[X]$ is calculated as follows:

$$\text{Vector } [X] = A \times W$$

- A represents the initial (pairwise comparison) matrix.
- W denotes the priority weight vector.

7. Calculating Vector [Y]

The vector [Y] is calculated as follows:

$$\text{Vector [Y]} = \frac{\text{Vector [X]}}{W}$$

8. Calculating the Maximum Eigenvalue ($\lambda_{\max}$)

The Maximum Eigenvalue ($\lambda_{\max}$) is calculated as follows:

$$\lambda_{\max} = \frac{\text{the sum of elements in vector } Y [Y]}{n}$$

- $\lambda_{\max}$ represents the maximum eigenvalue
- n denotes the number of elements

9. Calculating the Consistency Index (CI)

The Consistency Index (CI) is calculated as follows:

$$CI = \frac{\lambda_{\max} - n}{n - 1}$$

- $\lambda_{\max}$ represents the maximum eigenvalue
- n denotes the number of criteria in this study.

10. Calculating the Consistency Ratio (CR)

The Consistency Ratio (CR) is calculated as follows:

$$CR = \frac{CI}{RI}$$

- RI denotes the Random Index, which varies according to the number of criteria used in the matrix.

A Consistency Ratio (CR) of ≤ 0.1 indicates an acceptable level of consistency in the pairwise comparison judgments. Conversely, a CR value exceeding 0.1 reflects inconsistency, thereby requiring a reassessment of the judgments provided by the respondents to ensure the reliability of the analysis.

11. Determining the Global Priority

The final stage of the AHP method involves determining employee and leadership performance based on the calculated priority weights. This process includes multiplying the weight of each criteria by the corresponding scores of employees and leaders, followed by aggregating these values to obtain overall performance scores.

Based on the AHP results, individuals with the highest scores are recognized for their performance and may serve as benchmarks for others. Conversely, employees with lower scores are subject to evaluation and improvement programs, such as discipline enhancement, training, and development initiatives. Similarly, leaders with lower performance scores are encouraged to conduct self-evaluation and seek feedback to improve leadership effectiveness and support organizational performance.

4. RESULT AND DISCUSSION

4.1 Hierarchy Structure and Criteria Weights

The following is the first step in AHP: establishing a hierarchical structure. The following is a hierarchical structure for evaluating the performance of employees and leaders:

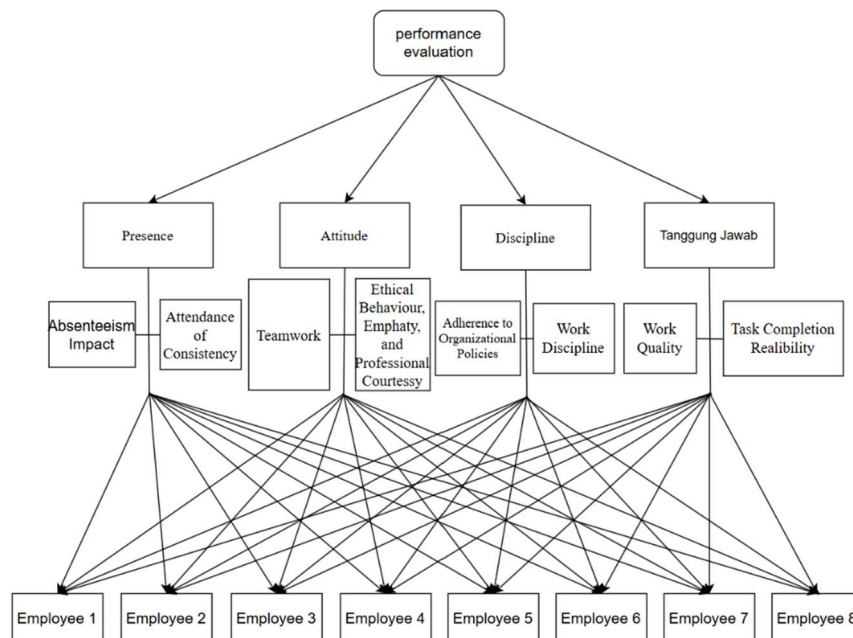


Figure 1. Results of The Hierarchical Structure For Employees Performance Evaluation

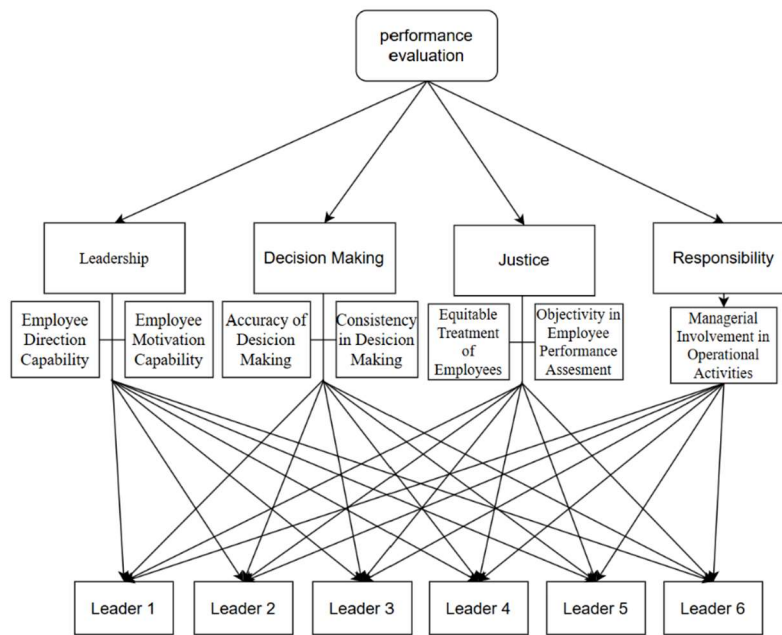


Figure 2. Results of The Hierarchical Structure For Leaders Performance Evaluation

After completing the construction of the hierarchical structure, you can proceed to calculate the weighted scores for the criteria that have been entered by the experts who actively contribute to the company.

Table 1. Results of expert assessments in relation to the criteria.

Criteria		Exp 1	Exp 2	Exp 3	Exp 4	Exp 5	Exp 6	Mean
Employees	C1 (Presence)	0.33	0.26	0.10	0.05	0.04	0.22	0.17
	C2 (Attitude)	0.32	0.11	0.27	0.06	0.04	0.21	0.17
	C3 (Discipline)	0.27	0.34	0.15	0.06	0.04	0.14	0.17
	C4 (Responsibility)	0.34	0.25	0.14	0.06	0.04	0.18	0.17

Table 2. Results of expert assessments in relation to the main criteria.

Criteria		Exp 1	Exp 2	Exp 3	Exp 4	Exp 5	Exp 6	Exp 7	Exp 8	Mean
Leaders	C1 (Presence)	0.04	0.08	0.38	0.09	0.07	0.03	0.05	0.26	0.13
	C2 (Attitude)	0.06	0.18	0.12	0.19	0.14	0.03	0.08	0.2	0.13
	C3 (Discipline)	0.06	0.15	0.19	0.15	0.12	0.03	0.08	0.22	0.13
	C4 (Responsibility)	0.05	0.23	0.17	0.17	0.17	0.03	0.06	0.13	0.13

4.1 Criteria Weights, Vector [X], Vector [Y], The Maximum Eigenvalue ($\lambda_{\max}$), Consistency Index (CI) and Consistency Ratio (CR)

Upon completion of the questionnaires using the Saaty scale, the data are systematically processed through pairwise comparisons, geometric mean aggregation,

and matrix normalization. The analysis then proceeds with the calculation of priority weights, vector X , vector Y , the maximum eigenvalue ($\lambda_{\max}$), as well as the Consistency Index (CI) and Consistency Ratio (CR) to ensure the reliability of the results.

Table 3. Results of the Pairwise Comparison of Criteria for Employee Performance Evaluation

Criteria	Priority Weights	Matrix Results	$\lambda_{\max}$	CI	CR
C1 (Leadership)	0.49	4.39	4.25	0.08	0.09
C2 (Decision Making)	0.14	4.18			
C3 (Justice)	0.28	4.35			
C4 (Responsibility)	0.08	4.08			

Table 4. Pairwise Comparison Results of Alternatives for Each Criterion in Employee Performance Evaluation

Alternative	C1 (Presence)	Matrix Results	$\lambda_{\max}$	CI	CR	C2 (Attitude)	Matrix Results	$\lambda_{\max}$	CI	CR
	Priority Weights									
Employee 1	0.04	8.42	8.74	0.11	0.07	0.06	8.47	8.82	0.12	0.08
Employee 2	0.08	8.28				0.18	9.07			
Employee 3	0.38	10.03				0.12	8.90			
Employee 4	0.09	8.70				0.19	9.02			
Employee 5	0.07	8.58				0.14	8.96			
Employee 6	0.03	8.55				0.03	8.80			
Employee 7	0.05	8.33				0.08	8.79			
Employee 8	0.26	9.02				0.20	8.86			

Alternative	C3 (Discipline)	Matrix Results	$\lambda_{\max}$	CI	CR	C4 (Responsibility)	Matrix Results	$\lambda_{\max}$	CI	CR
	Priority Weights									
Employee 1	0.06	8.57	8.86	0.12	0.09	0.05	8.32	8.56	0.08	0.06
Employee 2	0.15	8.91				0.23	8.57			
Employee 3	0.19	8.94				0.17	8.62			
Employee 4	0.15	9.26				0.17	8.85			
Employee 5	0.12	8.85				0.17	8.83			
Employee 6	0.03	8.76				0.03	8.16			
Employee 7	0.08	8.55				0.06	8.49			
Employee 8	0.22	8.73				0.13	8.66			

Table 5. Results of the Pairwise Comparison of Criteria for Leader Performance Evaluation

Table 8. Pairwise Comparison Results of Alternatives for Each Criterion in Leader Performance Evaluation

Alternative	C1 (Leadership) Priority Weights	Matrix Results	λ_{max}	CI	CR	C2 (Decision Making) Priority Weights	Matrix Results	λ_{max}	CI	CR
Leader 1	0.33	6.61	6.49	0.10	0.08	0.32	6.71	6.59	0.12	0.09
Leader 2	0.26	6.77				0.11	6.59			
Leader 3	0.10	6.40				0.27	7.09			
Leader 4	0.05	6.11				0.06	6.12			
Leader 5	0.04	6.17				0.04	6.14			
Leader 6	0.22	6.87				0.21	6.87			
Alternative	C3 (Justice) Priority Weights	Matrix Results	λ_{max}	CI	CR	C4 (Responsibility) Priority Weights	Matrix Results	λ_{max}	CI	CR
Leader 1	0.27	6.79	6.56	0.11	0.09	0.34	6.63	6.42	0.08	0.07
Leader 2	0.34	6.77				0.25	6.62			
Leader 3	0.15	7.01				0.14	6.53			
Leader 4	0.06	6.23				0.06	6.13			
Leader 5	0.04	6.17				0.04	6.28			
Leader 6	0.14	6.39				0.18	6.34			

After completing all the required calculations, the subsequent step involves determining the global priority based on the computed results.

4.2 Global Priority

Global priority represents the final outcome of the Analytical Hierarchy Process (AHP). Based on the results obtained, Employee 8 exhibits the highest global priority value among all employees, while Leader 1 also demonstrates a relatively high priority score. This suggests that both individuals perform their roles effectively.

Meanwhile, employees and leaders with lower priority weights require further evaluation, which may include management training and performance improvement initiatives to enhance their overall performance.

Table 9. The final result of the global priority calculation regarding employees performance evaluations

Alternative	C1 (Presence)	C2 (Attitude)	C3 (Discipline)	C4 (Responsibility)	X	Criteria Weight	=	Total Criteria Weight	Priority
Employee 1	0.04	0.06	0.06	0.05		0.07		0.05	7
Employee 2	0.08	0.18	0.15	0.23		0.54		0.18	2
Employee 3	0.38	0.12	0.19	0.17		0.12		0.16	4
Employee 4	0.09	0.19	0.15	0.17		0.28		0.17	3
Employee 5	0.07	0.14	0.12	0.17				0.14	5
Employee 6	0.03	0.03	0.03	0.03				0.03	8
Employee 7	0.05	0.08	0.08	0.06				0.08	6
Employee 8	0.26	0.20	0.22	0.13				0.19	1

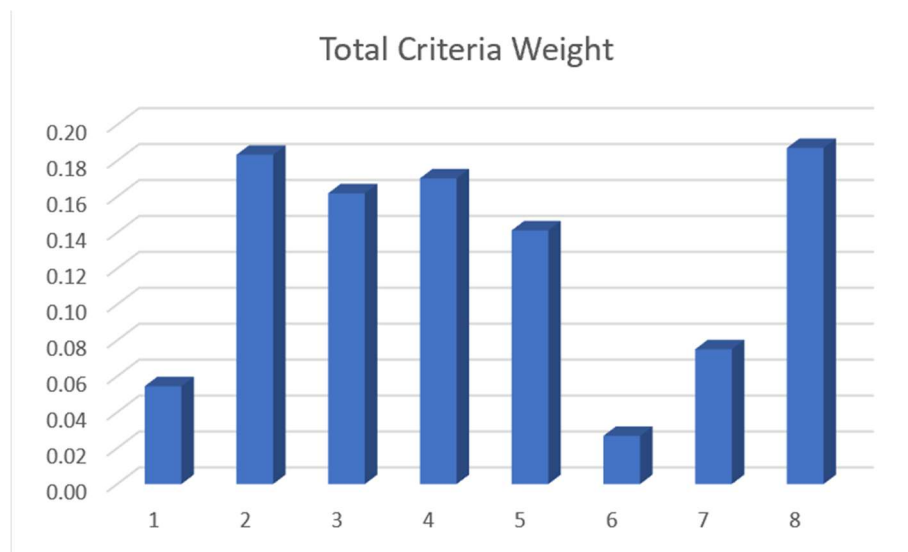
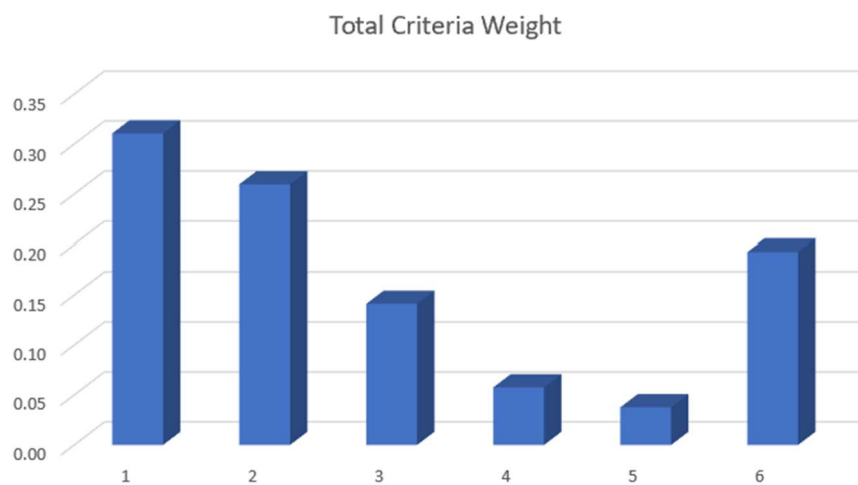


Figure 3. The final result of the global priority calculation regarding employees performance evaluations

Table 10. The final result of the global priority calculation regarding employee performance evaluations

Alternative	C1 (Presence)	C2 (Attitude)	C3 (Discipline)	C4 (Responsibility)		Criteria Weight		Total Criteria Weight	Priority
Leader 1	0.33	0.32	0.27	0.34	X	0.49	=	0.31	1
Leader 2	0.26	0.11	0.34	0.25		0.14		0.26	2
Leader 3	0.10	0.27	0.15	0.14		0.28		0.14	4
Leader 4	0.05	0.06	0.06	0.06		0.08		0.06	5
Leader 5	0.04	0.04	0.04	0.04				0.04	6
Leader 6	0.22	0.21	0.14	0.18				0.19	3

Figure 4. Results of Experts Total Criteria Weight



Discussion

This study demonstrates that the Analytical Hierarchy Process (AHP) provides a structured and objective framework for evaluating employee and leader performance in companies. The findings show that employee performance is mainly influenced by attendance, attitude, discipline, and responsibility, while leadership performance is determined by leadership capability, decision-making, fairness, and responsibility.

These results support human resource management and leadership theories, emphasizing the importance of behavioral and competency-based factors. The application of AHP also confirms its effectiveness as a multi-criteria decision-making tool that transforms subjective judgments into measurable priorities.

Compared to previous studies, this research offers a more comprehensive approach by integrating employee and leader evaluations within a single framework. Practically, the proposed model provides a transparent and systematic evaluation system that enhances fairness and supports decision-making. However, the study is limited to a single company context, which may affect generalizability. Future research is recommended to expand the model across industries and integrate AHP with other methods.

5. CONCLUSION

This study develops a structured performance evaluation model using the Analytical Hierarchy Process (AHP) for employees and leaders in companies. The results show that AHP effectively transforms subjective evaluations into objective and measurable outcomes.

Key evaluation criteria are identified for employees (attendance, attitude, discipline, responsibility) and leaders (leadership, decision-making, fairness, responsibility). The application of AHP enables objective performance ranking, improving transparency, fairness, and decision-making quality.

The proposed model is practical and adaptable, making it suitable for companies with limited resources. Future research should incorporate additional variables, such as compensation and organizational culture, and apply the model across different industries.

REFERENCES

- Abu Ghazaleh, M., & Zabadi, A. M. (2020). Promoting a revamped CRM through Internet of Things and Big Data: an AHP-based evaluation. *International Journal of Organizational Analysis*, 28(1), 66–91. <https://doi.org/10.1108/IJOA-12-2018-1602>
- Abu Ghazaleh, M., & Zabadi, A. M. (2020). Promoting a revamped CRM through Internet of Things and Big Data: an AHP-based evaluation. *International Journal of Organizational Analysis*, 28(1), 66–91. <https://doi.org/10.1108/IJOA-12-2018-1602>
- Belsito, C. A., & Reutzel, C. R. (2020). SME employee performance appraisal formalization and trust in leadership change. *International Journal of Organizational Analysis*, 28(2), 434–456. <https://doi.org/10.1108/IJOA-07-2019-1832>
- Chang, T. S., & Hsieh, Y. C. (2024). Applying the analytic hierarchy process for investigating key indicators of responsible innovation in the Taiwan software service industry. *Technology in Society*, 78, 102690. <https://doi.org/10.1016/j.techsoc.2024.102690>
- Chen, P., Kee, D. M. H., Tao, X., & Xiao, Y. (2025). Responsible leadership and employee creativity: a moderated mediation model based on social cognitive and situational strength theories. *BMC psychology*, 13(1), 757. <https://doi.org/10.1186/s40359-025-03110-3>
- da Silva, F. A., Vivoni, A. M., Gomes, H. M., Oliveira, L. A. dos S., Sant'Anna, A. P., & Gavião, L. O. (2019). A risk analysis model for biosecurity in Brazil using the Analytical Hierarchy Process (AHP). *Standards*, 5(1), 2. <https://doi.org/10.3390/standards5010002> <https://doi.org/10.52431/ushuly.v2i2.2090> <https://doi.org/10.38035/jkmt.v1i4>
- Dhoopar, A., Sihag, P., Kumar, A., & Suhag, A. K. (2022). Organizational resilience and employee performance in COVID-19 pandemic: the mediating effect of emotional intelligence. *International Journal of Organizational Analysis*, 30(1), 130–155. <https://doi.org/10.1108/IJOA-06-2020-2261>
- Fridan, A. A. A., & Maamari, B. E. (2024). Impact of organizational positive and negative culture on employee performance. *International Journal of Organizational Analysis*, 32(9), 1850–1869. <https://doi.org/10.1108/IJOA-05-2023-3778>
- Jeon, D., & Jeong, J. (2024). Does performance appraisal fairness alleviate police officers' organizational silence?-Considering the moderating effect of trust. *International Journal of Law, Crime and Justice*, 79, 100703. <https://doi.org/10.1016/j.ijlcj.2024.100703>
- Karim, D. N., Hossain, M. M., Chowdhury, S. P., Al Karim, R., Rahman, M. H. A., & Rahman, M. S. (2024). Linking performance appraisal fairness and performance feedback to bankers' extra-role customer service behavior: A serial multiple mediation model. *Social Sciences & Humanities Open*, 10, 100956. <https://doi.org/10.1016/j.ssaho.2024.100956> <https://doi.org/10.1016/j.ssaho.2025.101999>

- Khushk, A., Zhiying, L., Yi, X., & Zhang, X. (2025). Navigating human-AI dynamics: implications for organizational performance. *International Journal of Organizational Analysis*, 33(5), 1293–1311. <https://doi.org/10.1108/IJOA-04-2024-4456>
- Mohammed, A. A., & AL-Abrow, H. (2023). The impact of empowering and transformational leadership on organizational performance and innovation: the mediating role of shared leadership and moderating role of organizational culture in the Iraqi healthcare sector. *International Journal of Organizational Analysis*, 31(7), 3532–3552. <https://doi.org/10.1108/IJOA-08-2022-3380>
- Nguyen, N. T. T., Nguyen, P. V., Nguyễn, K. T. T., & Huynh, H. T. N. (2026). Leveraging sustainable performance through government policy and green human resource management: the interplay of green transformational leadership and employee commitment. *International Journal of Organizational Analysis*, 34(1), 283–306. <https://doi.org/10.1108/IJOA-12-2024-5096>
- Raj, G., & Krishnan, T. N. (2025). Research on leadership potential: where are we and where should we be heading? *International Journal of Organizational Analysis*, 33(10), 3528–3561. <https://doi.org/10.1108/IJOA-04-2024-4470>
- Robson, A. Justice in Leadership. *J Bus Ethics* 204, 183–197 (2026). <https://doi.org/10.1007/s10551-025-06102-w>
- Rodi, W. N. W., Che-Ani, A. I., Norazman, N., Kamaruzzaman, S. N., & Chohan, A. H. (2022). Prioritizing green building attributes on conventional office building rental depreciation using analytic hierarchy process (AHP). *Buildings*, 12(8), 1169. <https://doi.org/10.3390/buildings12081169>
- Saaty, T. L. (1990). How to make a decision. *International Series in Operations Research and Management Science*, 175, 1–21. [https://doi.org/10.1016/0377-2217\(90\)90057-I](https://doi.org/10.1016/0377-2217(90)90057-I) <https://doi.org/10.3390/economies9010015>
- Shah, A. K., Shukla, A., & Rao, P. K. (2025). Evaluating employee performance in the Indian manufacturing sectors: identifying critical success factors. *International Journal of Organizational Analysis*, 33(10), 3562–3586. <https://doi.org/10.1108/IJOA-09-2024-4812>
- Zaid, A. A., Saleh, Y., & Tomeh, A. J. (2025). Identifying the success factors for TQM implementation among automotive spare parts companies using analytic hierarchy process (AHP): evidence from Palestine. *International Journal of Organizational Analysis*, 33(4), 743–762. <https://doi.org/10.1108/IJOA-02-2024-4252>