

AN EMPIRICAL INVESTIGATION INTO PERFORMANCE APPRAISAL MECHANISMS AT STEEL AUTHORITY OF INDIA LIMITED, SALEM

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Abstract

The management and the employee meet together during the feedback-giving process to determine the obstacles preventing the employee's performance and the steps necessary to get past them. One of the key components of performance management is performance appraisal, which can also be utilised as a tool for effective performance management. The process of determining, evaluating, and documenting an employee's net worth is known as performance appraisal. The study on performance appraisal practices at Steel Authority of India (SAIL), Salem, holds significant importance in understanding the effectiveness and fairness of the existing evaluation system. In steel industry, a well-structured appraisal mechanism is crucial for employee motivation, career growth, and overall productivity. Also, enhancing performance appraisal practices can lead to higher employee satisfaction, reduced workplace conflicts, and better organizational outcomes. In this point of view, this study sought to look at Steel Authority of India Limited's performance assessment system in Salem. The approach of this study is descriptive research. This work makes advantage of both primary and secondary data sources. The main data are gathered from a structured questionnaire sent among the population; the secondary data come from industry reports, research papers, and internet to help the analysis. The questionnaire includes both closed-ended and Likert-scale questions to assess the practices of performance appraisal mechanism among employees. The sample size has involved of 175 employees of Steel Authority of India Limited, Salem by implementing sampling technique of random. While a null hypothesis has been constructed to investigate the significant difference of performance appraisal mechanism, the gathered data have been examined utilising the statistical tools such percentage analysis, mean score, standard deviation, Anova and Multiple regression analysis. This study mentioned from analysis that maximum level of practices of performance appraisal mechanism is obtained by the employees belong to the 46-55 years age group, professional qualification, experience of above 15 years, undertake Peer Review method and undergo half-yearly appraisals.

Keywords: Performance Appraisal Mechanism, Employee Evaluation, Human Resource Management, Steel Industry, Workforce Productivity, Employee Motivation.

1. INTRODUCTION

One of the essential functions that Human Resource (HR) employees should be aware of and take seriously is performance management. In addition to evaluating an employee's performance, performance management identifies the obstacles that prevent an employee from reaching his or her full potential and outlines the actions that should be taken to enhance performance. An important component of human resource management, performance reviews assess employee performance, point up areas for development, and help to match personal aspirations with corporate goals (Aguinis, 2019). In manufacturing industries like the Steel Authority of India Limited (SAIL), an effective performance appraisal mechanism enhances productivity, motivation, and job

satisfaction among employees (Dessler, 2020). Among the several assessment techniques available are 360-degree feedback, management by objectives (MBO), self-appraisal, rating scales, and peer review, are implemented to ensure a fair evaluation process (Noe et al., 2021). Employee involvement and professional development depend much on the frequency and openness of performance reviews (Armstrong & Taylor, 2020). However, challenges such as bias, subjectivity, and lack of timely feedback often affect the seeming effectiveness of the appraisal system (DeNisi & Murphy, 2017). The study on the practices of performance appraisal mechanism in SAIL, Salem, aims to analyze employee perceptions regarding fairness, effectiveness, and impact on motivation. It also examines how demographic aspects namely age, educational qualification & work experience influence satisfaction with the appraisal process. Understanding these practices can help in developing a more structured and transparent performance evaluation system (Landy & Conte, 2018). Organizations that implement an effective appraisal system witness higher employee retention and improved organizational performance (Robbins & Judge, 2019). This research provides insights into the existing appraisal framework at SAIL, Salem, and suggests ways to enhance its effectiveness for better workforce management.

2. REVIEW OF LITERATURE

The investigators Rekha and Geetha (2019) mentioned the performance appraisal played a crucial role in improving banking efficiency, aligning employee goals with organizational objectives. Also, training and learning motivation significantly impact employee performance, while post-training support is a key determinant. In addition, a structured and periodic appraisal system enhances employee skills, decision-making, and adaptability in the banking sector. Further, most private sector banks use self-appraisal and 360-degree feedback, but improvements are needed to eliminate bias. In case of Vermani and Bhattacharjee (2018) highlighted the transition of the Airports Authority of India's (AAI) performance management system (PMS) from an offline to an online format, improving traceability and reducing delays. Further, the survey found that employees perceive the online PMS as more transparent, though concerns remain regarding the complexity of the reporting process. Additionally, the study compares AAI's PMS with that of SAIL, noting that AAI's system involves more HR interventions, potentially slowing efficiency. The study of Khan (2022) revealed that the effectiveness of the 360-degree performance appraisal system in Indian banks, highlighting its role in employee evaluation, promotions, and skill development. The analysis indicates that while performance appraisal enhances communication and goal alignment, employees often perceive bias and dissatisfaction in the evaluation process and identifies key evaluation variables such as fairness, administrative value, and employee participation as determinants of appraisal effectiveness.

In view of Hemalatha and Kumaresan (2022) assessed that employee awareness of performance appraisal at Salem Steel Authority of India Limited (SAIL). They found that age and job nature significantly influenced awareness levels, while gender, marital status, and education did not while using a structured questionnaire and systematic random

sampling. Additionally, most employees had medium awareness, with officers showing lower awareness than workers whereas performance appraisal transparency enhances employee motivation and reduces workplace conflicts. The writers Kodi and Kumar (2021) examined performance evaluation systems in developed and developing nations' higher education institutions (HEIs). They highlighted the influence of institutional culture, societal norms, and economic factors on the effectiveness of appraisal systems. Also, the research found that transparent and participatory appraisal models enhance staff motivation and institutional performance.

However, resistance from employees and cultural biases often limit the implementation of objective assessment models. According to Thomas et al. (2024) revealed that the effects on staff performance in approved colleges of performance reviews. Similarly, performance appraisal significantly influences employee motivation, career progression, promotions, pay raises, and incentives. Further, employees benefit from structured feedback, which enhances their productivity and skill development whereas factor analysis confirmed the rather close relationship between employee performance and performance reviews.

3. STATEMENT OF THE PROBLEM

Performance appraisal is a critical component of human resource management, influencing employee motivation, productivity, and overall organizational success. In large public sector undertakings like the SAIL, Salem, the effectiveness of performance appraisal mechanisms directly impacts workforce efficiency and operational excellence. However, concerns arise regarding the transparency, fairness, and effectiveness of the appraisal system. Employees often perceive bias, inadequate feedback, and a lack of career progression opportunities. Moreover, the alignment of appraisal outcomes with rewards, promotions, and skill development remains a challenge. This study seeks to analyze the existing performance appraisal practices at SAIL, Salem, identifying gaps and areas for improvement.

4. OBJECTIVES OF THE STUDY

- To present the demographic profile and working profile of the selected employees in Steel Authority of India Limited, Salem.
- To examine the practices of performance appraisal mechanism among selected employees in SAIL.

5. HYPOTHESIS OF THE STUDY

- There is no significant difference in mean practices of performance appraisal mechanism with regard to work experience of the employees.
- There is no significant difference in mean practices of performance appraisal mechanism with regard to type of performance appraisal methods used among the employees.

- There is no significant difference in mean practices of performance appraisal mechanism with regard to frequency of performance appraisal of the employees.
- There is significant relationship with practices of performance appraisal mechanism among selected variables.

6. RESEARCH METHODS

This paper examined Steel Authority of India Limited's performance assessment system using a descriptive research design in Salem. The obtained data on the performance assessment system is gathered and examined using a quantitative research methodology. The main data are obtained by means of a standardised questionnaire and sent to Salem's staff of Steel Authority of India Limited. The questionnaire consists of closed-ended and Likert-scale questions to assess various aspects of practices of performance appraisal mechanism. The convenience sampling is used to select 175 employees who working in SAIL, Salem. Statistical instruments include frequency distribution, percentage analysis, mean score, standard deviation, anova test, multiple regression analysis help to examine the gathered data whereas MS-Excel software and SPSS 22.0 software are utilized to analyze the sample data.

7. RESULT AND DISCUSSION

7.1 Demographic profile and Practices of Performance Appraisal Mechanism

The demographic profile of staff members and their performance assessment system at SAIL, Salem, is shown below. It includes variables such as age, educational qualification, work experience, type of performance appraisal methods used and frequency of performance appraisal.

Table 1: Demographic profile and Practices of Performance Appraisal Mechanism

No.	Variables Name	Number of Employees	%	Mean	Standard Deviation
1	Age of the employees				
	• Less than 25 Years	32	18.3	3.45	0.63
	• 25 - 35 Years	59	33.7	3.73	0.58
	• 36 - 45 Years	45	25.7	3.63	0.48
	• 46 - 55 Years	26	14.9	3.84	0.48
	• Above 55 Years	13	7.4	3.81	0.63
	Total	175	100.0		
2	Educational Qualification				
	• Upto School level	53	30.2	3.71	0.55
	• Colleges level	71	40.6	3.67	0.59
	• Professional	32	18.3	3.85	0.45
	• Others	19	10.9	3.43	0.62
	Total	175	100.0		
3	Work Experience				
	• Less than 5 years	56	32.0	3.60	0.58
	• 5–10 years	62	35.4	3.84	0.48

No.	Variables Name	Number of Employees	%	Mean	Standard Deviation
	• 11–15 years	34	19.5	3.42	0.64
	• Above 15 years	23	13.1	3.91	0.41
	Total	175	100.0		
4	Type of Performance Appraisal Methods Used				
	• 360-Degree Feedback	23	13.1	3.33	0.55
	• Management by Objectives (MBO)	55	31.4	3.77	0.58
	• Self-Appraisal	45	25.7	3.78	0.52
	• Rating Scales	37	21.2	3.61	0.55
	• Peer Review	15	8.6	3.87	0.49
	Total	175	100.0		
5	Frequency of Performance Appraisal				
	• Quarterly	20	11.4	3.56	0.64
	• Half-Yearly	54	30.9	3.87	0.43
	• Annually	70	40.0	3.68	0.55
	• Biennially	31	17.7	3.47	0.66
	Total	175	100.0		

It is mentioned from the above table that the highest percentage of employees (33.7%) belong to the 25–35 years age group, followed by 36–45 years (25.7%). Also, employees aged less than 25 years constitute 18.3%, the employees those in the 46–55 years category make up 14.9% whereas the lowest percentage is observed among employees above 55 years at 7.4%. It is found that the highest mean value (3.84) of practices of performance appraisal mechanism is observed among the employees belong to the 46–55 years age group, while the lowest mean value (3.45) is found in the less than 25 years category.

It is displayed that the majority of employees (40.6%) have a college-level education, followed by school-level education at 30.2%. Further, the employees with a professional qualification account for 18.3%, while 10.9% fall into the other qualifications category. It is noted that the employees with professional qualifications have the highest mean value (3.85) of practices of performance appraisal mechanism, whereas the lowest mean value (3.43) is perceived in the other qualifications category.

Based on the study, the biggest group of workers—35.4%—have 5–10 years of experience; followed by those with less than 5 years of experience—32.0%. Furthermore, whilst those with more than 15 years of experience make up 13.1%, the personnel with 11–15 years of experience account for 19.5%. It is showed that the highest mean value (3.91) of practices of performance appraisal mechanism is observed among employees with more than 15 years of experience, while the lowest mean value (3.42) is found in the 11–15 years' experience group.

It is revealed from the analysis that the most commonly used performance appraisal method among selected employees is Management by Objectives (MBO) at 31.4%,

followed by Self-Appraisal (25.7%). Moreover, Rating Scales are used by 21.2%, while 360-Degree Feedback is used by 13.1% of employees whereas the least used method is Peer Review at 8.6%. It is obtained that the highest mean value (3.87) of practices of performance appraisal mechanism is recorded for the Peer Review method, whereas the lowest mean value (3.33) is seen in the 360-Degree Feedback method.

It is assumed from the analysis that the majority of employees (40.0%) undergo performance appraisals annually, followed by half-yearly appraisals (30.9%). Additionally, Biennial appraisals account for 17.7% among employees, while the least common frequency is quarterly appraisals at 11.4%. It is measured that the highest mean value (3.87) of practices of performance appraisal mechanism is observed for half-yearly appraisals, while the lowest mean value (3.47) is found in the biennial appraisal category.

7.2 Practices of Performance Appraisal Mechanism

This section examines employees' practices of the performance appraisal mechanism based on key evaluation criteria. It includes eight statements related to practices of performance appraisal mechanism such as fairness, effectiveness on strength, feedback, motivation, organizational growth and employee development, opportunity to discuss appraisal results and the impact of appraisals on career growth. The mean scores and standard deviations provide visions into how employees assess the effectiveness of the appraisal system.

Table 2: Practices of Performance Appraisal Mechanism

S. No	Statements	Mean Score	SD
1	The performance appraisal system in my organization is conducted fairly and transparently.	3.71	1.28
2	The appraisal process effectively identifies my strengths and areas for improvement.	3.86	1.34
3	I receive timely and constructive feedback from my supervisor during the performance appraisal.	3.78	1.10
4	The performance appraisal system helps in enhancing employee motivation and job satisfaction.	3.60	1.24
5	My performance appraisal results have a significant impact on my salary increments and promotions.	3.40	1.10
6	Current performance appraisal mechanism contributes to organizational growth and employee development.	3.87	1.12
7	I am given an opportunity to discuss my appraisal results and provide my feedback.	3.80	1.17
8	The performance appraisal system is free from favouritism and personal bias.	3.49	1.13

For the claims regarding the performance appraisal system, the Cronbach Alpha value is 0.891. According to this study, performance evaluation system's dependability is good and appropriate for analysis. The employees with the mean score and standard deviation of 3.87 and 1.12 respectively believe that 'current performance assessment mechanism contributes to organisational growth and employee development'.

With the mean score and standard deviation of 3.86 and 1.34 respectively, 'the appraisal process effectively identifies my strengths and areas of improvement'.

Testing Of Hypothesis (ANOVA)

7.3 Relationship between Demographic profile and Practices of Performance Appraisal Mechanism

This part has examined the correlation among the chosen employees between the demographic profile and performance assessment system practices.

Anova test has been devised and performed to investigate the link between particular independent variables of the employees and practices of performance assessment mechanism.

Work Experience and Practices of Performance Appraisal Mechanism

H₀: There is no significant difference in mean practices of performance appraisal mechanism with regard to work experience of the employees.

Table 3: Work Experience and Practices of Performance Appraisal Mechanism

	Sum of Squares	df	Mean Square	F	'p' value
Between Groups	5.505	3	1.835	6.273	0.000*
Within Groups	50.022	171	0.293		
Total	55.527	174			

Note: * – Significant at 1% level

Based on the study, it is clear that the 'p' value is smaller than 0.05 hence the null hypothesis is refuted.

Therefore, with relation to work experience of the employees, mean practices of performance evaluation mechanism differ greatly.

Type of Performance Appraisal Methods Used and Practices of Performance Appraisal Mechanism

H₀: There is no significant difference in mean practices of performance appraisal mechanism with regard to type of performance appraisal methods used among the employees.

Table 4: Type of Performance Appraisal Methods Used and Practices of Performance Appraisal Mechanism

	Sum of Squares	df	Mean Square	F	'p' value
Between Groups	4.361	4	1.090	3.622	0.007*
Within Groups	51.166	170	0.301		
Total	55.527	174			

Note: * – Significant at 1% level

The null hypothesis is disproved from the study since the 'p' value is smaller than 0.05. Therefore, there is a notable variation in mean practices of performance evaluation

mechanism with respect to type of performance evaluation techniques applied among the employees.

Frequency of Performance Appraisal and Practices of Performance Appraisal Mechanism

H₀: There is no significant difference in mean practices of performance appraisal mechanism with regard to frequency of performance appraisal of the employees.

Table 5: Frequency of Performance Appraisal and Practices of Performance Appraisal Mechanism

	Sum of Squares	df	Mean Square	F	'p' value
Between Groups	3.694	3	1.231	4.062	0.008*
Within Groups	51.833	171	0.303		
Total	55.527	174			

Note: * – Significant at 1% level

The study shows that the 'p' value is smaller than 0.05 so the null hypothesis is disproved. Therefore, there is a notable variation in mean practices of performance evaluation mechanism about frequency of performance appraisal of the employees.

Relationship of Practices of Performance Appraisal Mechanism

The relationship of practices of performance appraisal mechanism with selected variables among employees is discussed in the following table.

H₀: There is significant relationship with practices of performance appraisal mechanism among selected variables.

Table 6: Relationship of Practices of Performance Appraisal Mechanism (Multiple Regression Analysis)

No.	Variables	Coefficient	SE	't' value	'p' value
	(Constant)	3.729			
1	Age	0.052	0.047	1.119	0.265 ^{NS}
2	Educational Qualification	-0.087	0.048	-1.803	0.073 ^{NS}
3	Work Experience	0.079	0.038	2.066	0.040 ^{**}
4	Frequency of Performance Appraisal	0.096	0.021	4.571	0.000*
	R Value	0.826			
	R² Value	0.682			
	F Value	72.281			

Note: * - Significant at 1% level; ** - Significant at 5% level; NS - Not Significant

With R² = 0.682, the table above shows to be statistically fit; so, the proposed model has good fit.

The regression coefficient value of work experience of employees of 7.9 percent and frequency of performance appraisal of 9.6 percent are related positive significantly with the practices of performance appraisal mechanism among the selected employees.

8. FINDINGS

- It is indicated that majority of employees are belong to the 25–35 years age group. Also, maximum level of practices of performance appraisal mechanism is obtained by the employees belong to the 46-55 years age group.
- It is showed that majority of employees are qualified college level education. Further, maximum level of practices of performance appraisal mechanism is obtained by the employees who have professional qualification.
- It is assessed that majority of employees have experience of 5-10 years. Additionally, maximum level of practices of performance appraisal mechanism is obtained by the employees who have experience of above 15 years.
- It is displayed that majority of employees who performing appraisal method of Management by Objectives (MBO). Further, maximum level of practices of performance appraisal mechanism is obtained by the employees who undergo Peer Review method.
- It is assumed that majority of the employees have experienced performance appraisals annually. Furthermore, maximum level of practices of performance appraisal mechanism is obtained by the employees who undergo half-yearly appraisals.
- It is confirmed from the mean score analysis that the employees agreed that ‘current performance appraisal mechanism contributes to organizational growth and employee development’ with the mean score of 3.87 and ‘the appraisal process effectively identifies my strengths and areas for improvement’ with the mean score of 3.86.
- The Anova test proved that there is a significant difference in mean practices of performance appraisal mechanism with regard to work experience of the employees.
- From the ‘F’ test, it is noticed that there is a significant difference in mean practices of performance appraisal mechanism with regard to type of performance appraisal methods used among the employees.
- The Anova test observed that there is a significant difference in mean practices of performance appraisal mechanism with regard to frequency of performance appraisal of the employees.
- The multiple regression analysis depicted that work experience (7.9%) and frequency of performance appraisal (9.6%) are related positive significantly with the practices of performance appraisal mechanism among the selected employees.

9. SUGGESTIONS

- The findings indicated that high level of practices of performance appraisal mechanism is obtained by the employees belong to the 46-55 years age group. Hence, Steel Authority of India Limited, Salem should introduce targeted leadership and skill enhancement programs among their employees to further leverage their experience.

- From the study, it could be observed that maximum level of practices of performance appraisal mechanism is obtained by the employees who have professional qualification. So, it is suggested steel industry should provide financial assistance, recognition, and career advancement opportunities for employees pursuing professional qualifications to enhance their engagement in performance appraisals.
- It is measured that high level of practices of performance appraisal mechanism is obtained by the employees who have experience of above 15 years. The steel industries should implement structured mentorship programs where employees with more experience can guide and train junior staff to improve overall workforce efficiency.
- From the study, it is mentioned that maximum level of practices of performance appraisal mechanism is obtained by the employees who undergo Peer Review method. Therefore, steel industry should integrate peer review with other appraisal methods to create a more comprehensive evaluation system that fosters collaboration and accountability among employees.
- It is depicted from the findings that high level of practices of performance appraisal mechanism is obtained by the employees who undergo half-yearly appraisals. Accordingly, steel industry should reinforce structured mid-year review sessions focused on performance improvement and goal alignment.
- The steel industry should ensure that employees clearly understand the appraisal criteria, objectives, and outcomes to build trust and encourage active participation in the evaluation process.
- The steel industry should tailor performance appraisal methods based on employees' experience levels to ensure relevant feedback, motivation, and career development opportunities.

10. CONCLUSION

This study aimed to analyze the practices of performance appraisal mechanism in Steel Authority of India Limited, Salem. A well-structured performance appraisal system is essential for fostering a motivated and efficient workforce. This study indicated that age, professional qualifications, and work experience play a crucial role in employees' appraisal participation. Also, peer review emerges as the most effective appraisal method, while half-yearly evaluations lead to higher engagement.

So, SAIL should focus on leadership training, mentorship programs, and structured feedback systems to improve appraisal effectiveness. Further, there is a significant difference in mean practices of performance appraisal mechanism with regard to selected variables namely work experience, type of performance appraisal methods used and frequency of performance appraisal among the selected employees. Therefore, encouraging professional development and integrating multiple appraisal methods can further enhance employee performance.

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