A STUDY ON EMPLOYEE PERCEPTION OF AI IN PERFORMANCE MANAGEMENT SYSTEMS AMONG IT PROFESSIONALS IN CHENNAI CITY

Dr. Sundarameena Senthil
Assistant professor PG Department of Commerce
Shri Sankarlal Sundarbai Shasun Jain College, T. Nagar, Chennai

S. Cibisree
Student, PG Department of Commerce
Shri Sankarlal Sundarbai Shasun Jain College, T. Nagar, Chennai
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Abstract

Artificial intelligence (AI) has disrupted human resource management (HRM) and, in particular, performance management systems (PMSs). Using AI for PMS can allow data analytics, machine learning, and automation to create objective, transparent, and efficient means of performance evaluation. As is well known, the IT industry shows a faster pace of adopting new technologies, quickly investing in the automation of performance management tools to optimize workforce productivity while simplifying appraisal tools. On the other hand, acceptance and effectiveness of these AI systems significantly depend on the perception of employees on the same. This research intends to comprehend the perception of IT professionals of Chennai towards AI-enabled performance management systems, in terms of trust, satisfaction, and concerns on these aspects. The research issues considered are the effect of AI-based PMS on employee retention; perceived accuracy and fairness of evaluations conducted by the AI system; and problems faced by the employees in adjusting to AI evaluations. Comprehensive insights will lead to an understanding of factors that influence employee acceptance of AI-powered PMS, such as algorithmic biases, concerns about data security, automated decision-making without some form of human empathy, and transparency in decision-making. The study results will go ahead in adding practical value to the IT organization whose objective is to install AI-driven PMS in their systems for employee fear curtailment when the implementation of AI technologies is undertaken in their HR activities. As emphasized in the research title, AI should be giving support to, not essentially replacing, human judgments in performance evaluations. Transparency, fairness, and ethics in AI will install trust in employees and will contribute to the more effectual and inclusive AI-based performance management system. Here lays yet another ingredient for building the arguments of AI into HRM with empirical evidence in the field of employee perceptions saluting the fine-tuning of AI strategies of organizations in becoming more involved in making a pronounced direction for a much more human-focused AI use in performance evaluation in the IT arena.

Keywords: *Artificial Intelligence, Performance Management Systems, Employee Perception, IT Industry, Employee Retention, AI-driven Performance Evaluation*

Introduction

Artificial Intelligence is a core component that serves to distinguish industries in today's world of business; hence, its rapid evolution has redefined several age-old traditions in the different sectors of the economy. AI, therefore, is playing a huge role in smart working, operational efficacy, ensuring right data generation, and right scaling in several processes of common organizational operations. One very special domain where AI made tremendous strides is human resource management (HRM) and, more especially, performance management systems (PMSs). As a functional area, performance management is crucial for companies since it affects employee productivity, talent retention, organizational growth, and, therefore, overall commercial performance. Performance management makes employees highly engaged, motivated, and aligned toward the corporate goals of the organization, which further leads to long-term success for the organization.

Conventional PMS systems tend to have the managers or supervisors lashed by a sense of responsibility in assessing the performance of their employees on maybe a weekly or so basis. It can involve peer feedback, subjective assessments, employees self-evaluating, and such. While this kind of system had been there in place for decades, its effectiveness was already questioned a long time ago because of inherent flaws like recency bias (a phenomenon in which recent events are weighted way too high in rating an employee's performance, relative to the employee's overall contributions) and favouritism. Then again, manual performance management procedures can sometimes be as demanding and draining in return for energy from top leadership and HR staff. Organizations are now exploring AI-enabled automation for enhanced objectivity and performance management speed due to such flaws.

Objectives of the Study

- To determine influence of Al based performance management on employee retention in IT firms.
- To analyse employee perceptions of the accuracy, analyse and fairness of Al in performance management.
- To explore employee, trust and satisfaction with Al enabled performance management system in IT companies in Chennai.

Literature Review

Utilizing Artificial Intelligence to Enhance Employee Experience and Improve Human Resource Management Efficiency: A Performance Analysis of Companies Raed.H. Wishah, Fida Zakzouk, Leila Rawashdeh, Emad Ahmed 2025 This research aims

to examine the impact of AI in businesses that have deployed the technology to boost employee satisfaction and maximize HRM efficiency.

Analysing Employees' Perception of AI-Enhanced Work from Home Approach in Karnataka Vani Dilipkumar Bhajantri, Basavaraj S. Kudachimatht, Rajendra M. Inamdar and Prasad Daddikar2024 Employee opinions of AI-enhanced work from home (WFH) models in Karnataka are examined in this analytical study. The study looks at important factors affecting WFH experiences, such as job satisfaction, work-life balance, productivity, and difficulties integrating technology and artificial intelligence, using a convenience sampling method to poll 183 participants.

The adoption of artificial intelligence in human resources management practicesNishad Nawaz, Hemalatha Arunachalam, BaraniKumari Pathi, Vijayakumar G ajenderan 2024,The impact of artificial intelligence (AI) on HRM practices is examined in this study. by concentrating on important results including precision, automation, processing power and capacity, real-time experience, customization, and cost and time savings.

Theoritical Framework

Human Resource Management – Definition

Human Resource Management is planning, organizing, directing, controlling of procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual, organizational and social objectives are achieved.

- Edwin B. Flippo

Importance of Human Resource Management

Quality of work-life

The general level of productivity or quality that employees produce at work is referred to as quality of work. It describes how employees perceive each other's psychological and physical productivity at work. Since staff productivity is directly correlated with work quality, the HR manager consciously works to preserve it. This can be achieved through lowering workload and stress related to work-life balance, offering incentives and recognition, and, if feasible, providing additional financial benefits.

Meeting demand and supply gap for human resources

An HR manager makes sure that a firm has the right people resources in addition to preserving its physical resources. They are in charge of determining the ideal match for the company in order to guarantee excellent output and performance. Campus placements and other recruitment campaigns can be used to accomplish this as needed. Unproductive employees may also be let go from the company.

Artificial Intelligence

The ability of computing systems to carry out operations commonly associated with human intellect, including learning, reasoning, problem-solving, perception, and decision-making, is known as artificial intelligence. It encompasses various technologies, algorithms, and approaches designed to enable computers to perform tasks that typically require human intelligence.

Performance Management System

A Performance Management System (PMS) is a structured process that organizations use to monitor, evaluate, and improve employee performance. It ensures that individual efforts align with organizational goals, thereby enhancing productivity, efficiency, and job satisfaction. A well-structured PMS incorporates multiple components that contribute to an effective and fair evaluation of employees, fostering a culture of continuous growth and improvement.

Data Analysis and Interpretation

Attributing the Anova Analysis for Designation and Influence of AI Based Performance Management on Employee Retention

STATEMENTS	COMPARISON	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
AI-based performance management motivates me to improve performance	BETWEEN GROUPS	5.526	3	1.842	2.594	.057
	WITHIN GROUPS	71.003	100	.710		
	TOTAL	76.529	103			
AI systems make feel more appreciated as employees	BETWEEN GROUPS	2.554	3	.851	1.091	.357
	WITHIN GROUPS	78.061	100	.781		
	TOTAL	80.615	103			
AI-enabled performance management influences the	BETWEEN GROUPS	2.260	3	.753	1.059	.370

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decision to stay in the organization						
	WITHIN GROUPS	71.125	100	.711		
	TOTAL	73.385	103			
AI systems help by creating a good environment	BETWEEN GROUPS	1.965	3	.655	.915	.437
	WITHIN GROUPS	71.564	100	.716		
	TOTAL	73.529	103			

Source: Computed Data

Null Hypothesis (H_0): There is no significant difference in the influence of AI-based performance management on employee retention across different job designations.

Alternative Hypothesis (H_1): There is a significant difference in the influence of AI-based performance management on employee retention across different job designations.

Inference

The ANOVA results show that all four statements have p-values greater than 0.05, indicating no significant difference in how employees at different designations perceive AI-based performance management's influence on retention. The closest to significance is "AI-based performance management motivates me to improve performance", with a p-value of 0.057, suggesting a marginal difference. Overall, AI's impact on retention appears consistent across junior, mid-level, senior, and managerial roles.

Attributing the Anova Analysis for Work experience and Influence of AI Based Performance Management on Employee Retention

STATEMENTS	COMPARISON	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.
AI-based performance management motivates me to improve performance	BETWEEN GROUPS	4.294	3	1.431	1.981	.122
	WITHIN GROUPS	72.235	100	.722		
	TOTAL	76.529	103			
	BETWEEN GROUPS	3.572	3	1.191	1.545	.207

AI systems make feel more appreciated as employees	WITHIN GROUPS	77.044	100	.770		
	TOTAL	80.615	103			
AI-enabled performance management influences the decision to stay in the organization	BETWEEN GROUPS	7.021	3	2.340	3.527	.018
	WITHIN GROUPS	66.363	100	.664		
	TOTAL	73.385	103			
AI systems help by creating a good environment	BETWEEN GROUPS	5.176	3	1.725	2.524	.062
	WITHIN GROUPS	68.352	100	.684		
	TOTAL	73.529	103			

Source: Computed Data

Null Hypothesis (H_0): There is no significant difference in the influence of AI-based performance management on employee retention based on employees' work experience.

Alternative Hypothesis (H_1): There is a significant difference in the influence of AI-based perfor.2mance management on employee retention based on employees' work experience.

Inference

Among the four statements, "AI-enabled performance management influences the decision to stay in the organization" has a p-value of 0.018, which is less than 0.05, indicating a significant difference in perception based on work experience. Employees with different experience levels perceive AI's role in their retention differently. The other statements have p-values greater than 0.05, suggesting no significant differences in motivation, appreciation, or AI's role in creating a good work environment. Organizations should tailor AI-based retention strategies to different experience levels to maximize employee satisfaction and engagement.

Findings

- Young Workforce: 59.6% of respondents are aged 20–30. This shows most employees are young and likely comfortable with AI tools.
- Gender Mix: 58.7% of the respondents are male, 41.3% are female. The fairly balanced mix brings diverse views on AI in the workplace.

- Less Experience: 37.5% of employees have under 2 years of experience. This suggests many are new and need structured, helpful feedback.
- Medium-Sized Companies: 54.8% work in medium-scale firms. These companies seem to be early adopters of AI systems.

Sugessions

- Offer Training Teach employees, especially new ones, how to use AI tools properly. It builds confidence and better results.
- Explain Clearly Tell users how AI evaluates their work. This builds trust and reduces confusion.
- Protect Data Keep employee data safe and secure. Strong privacy builds confidence in AI.
- Keep Improving AI Update AI regularly to fix errors and reduce bias.

Conclusion

The study highlights that while AI-driven evaluations are generally trusted, concerns about usability and the complexity of AI systems still hinder full adoption.

To maximize AI's effectiveness, organizations should invest in comprehensive training, improve transparency in AI decision-making, and incorporate human oversight to balance automation with empathy. Tailoring AI tools to different demographics and involving employees in system design can enhance satisfaction. Ultimately, balancing AI-driven innovation with empathetic human management is essential for creating a fair and effective performance.

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