

NAVIGATING HR ANALYTICS DRIVEN BY AI FOR JOB ENRICHMENT AND WORKPLACE PRODUCTIVITY IN INDIAN MNCs

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Abstract

The Artificial Intelligence-based HR analytics can be used in Indian multinationals for the better utilisation of time and job enrichment, which can be derived from primary data inferences from the primary information collected at the end of last year (2021). This paper focused on the influence of the application of AI among line managers, data analysts, and HR managers by using the data collected from 65 HR managers of five MNCs of Maharashtra, India, and subjected them to regression and correlation under various scenarios. The study confirms that utilising AI is still pertinent to enhancing an HR's capability and making their role more efficient and automated and effectively improving job performance. In addition, it also discusses that the job performance can be made more efficient and effective by facilitating faster recruiting and better performance of the team, which will enhance organisational efficiency. With a strong positive connection between job enrichment and productivity, workplaces may be entering a job enrichment–productivity cycle, with increased autonomy through the use of AI resulting in tangible productivity improvements for the organisation. The results reveal that HR analytics with AI is a strategic necessity but a crucial need for Indian MNCs in the post-pandemic era to become resilient and agile. By providing empirical proof of AI's revolutionary influence in HR and articulating useful suggestions and future research areas, this study adds to the expanding body of literature.

Keywords: Artificial Intelligence, HR Analytics, Job Enrichment, Workplace Productivity, Indian Multinationals, Post-Pandemic Resilience

INTRODUCTION

The automation of HR processes through AI is transforming the HR landscape, and it plays a vital role in multinational companies in India. With the advent of computer facilities, various data science resources (also called predictive HR models) have started being used to optimise HR functions and integrate HR functions with international standards. It's also seeing an uptick in the use of psychometrically validated surveys to measure well-being within the workplace, which will support digitalisation in HR and integrate analytics with engagement and satisfaction [2]. In work scenarios, the employment model approaches and fundamentals need to change in the employment model structure in the Indian scenario [3] – Policies & Laws for Job Approaches & Fundamentals should be flexible enough to easily accept the external AI inputs in employing HR decisions & processes. With the diversity of culture in the IT field, it's clear that the role of analytics is also important when dealing with a diverse workforce; however, it's a way to make it inclusive and boost productivity. AI-powered analytics has enhanced the learning and development interventions utilised on digital platforms, providing a more personalised experience, enhancing learning, and improving skill acquisition. In addition to this, HR audits in IT companies reveal that analytics also has a profound impact with respect to not only compliance but also the performance of the employees [6]. Lastly, AI in HR analytics can be a strategic support for job enrichment and productivity, giving organisations resilience and competitiveness within the dynamic business environment where they face challenges posed by a digitized world [7].

LITERATURE REVIEW

AI-driven human resource data analytics can be used hand-in-hand with workspace optimisation models, frameworks that evolve and aim to predict and optimise workspaces. Pointed out by Bukhari et al. [8] was the topic of predictive HR analytics, which has a global relevance to enhancing productivity based on organisational needs and people aspects capacities. Karthikeyan [9] discussed "Algocratic HRM," which is more towards the modernisation of HR processes with the help of AI in India, and discussed the potential and ethical aspects of it. The automation augmentation paradox was explored further by Raisch and Krakowski [10], who were quick to note that whilst AI can perform repetitive HR tasks, it also enriches the human decision-making process by providing deeper insights into employee engagement and performance. In this context, Lanu [11] presented a case study on the evolution of HR analytics, showing how

this shift is happening from a reporting to a more insightful, predictive, and prescriptive nature. Beyond job enrichment and optimising workplaces, these studies reveal that to fully tap into the potential impact of AI in the organisation, HR AI analytics needs to align with maturity levels, ethical considerations, and strategic alignment within the work.

Objectives

- The researchers are likely to analyse the outcome of the immediate effect of AI implementation for HR analytics in the job enrichment of the employees of the Indian MNC in the state of Maharashtra.
- To discover how AI HR analytics tools can help to improve productivity in the workplace.
- To check whether there is any significant positive relationship between job enrichment of the workplace with the help of AI and the efficiency of the organisation.

METHODOLOGY

This study used quantitative methods in order to seek the findings of how AI is playing a role in the job enrichment and productivity of HR analytics in MNCs of India. The main data collection is using an online structured questionnaire(s) with a Likert format from September to November 2021. The respondents were HR managers, line managers, and data analysts of 5 large software & industrial MNCs taken from Maharashtra, 65 respondents in total. It was divided into categories pertaining to output at work, enrichment, and integrating AI into the workplace. The answers were all coded and composed into composite scores for two dimensions (AI Adoption (AIA) and Job Enrichment (JOE)) and a third (Workplace Productivity (WPP)). Achieving the internal consistency in scales was checked through Cronbach's Alpha, and its values were kept above the minimum internal consistency value, which is 0.70. The direct effects of the adoption of AI on job enrichment and productivity were tested using linear regression models, and the correlation between job enrichment and productivity was tested using Pearson's correlation. An approach we used was methodical, which gave rigor and relevance in capturing the structural impact of AI-driven HR analytics in the context of an MNC in India.

RESULTS & ANALYSIS

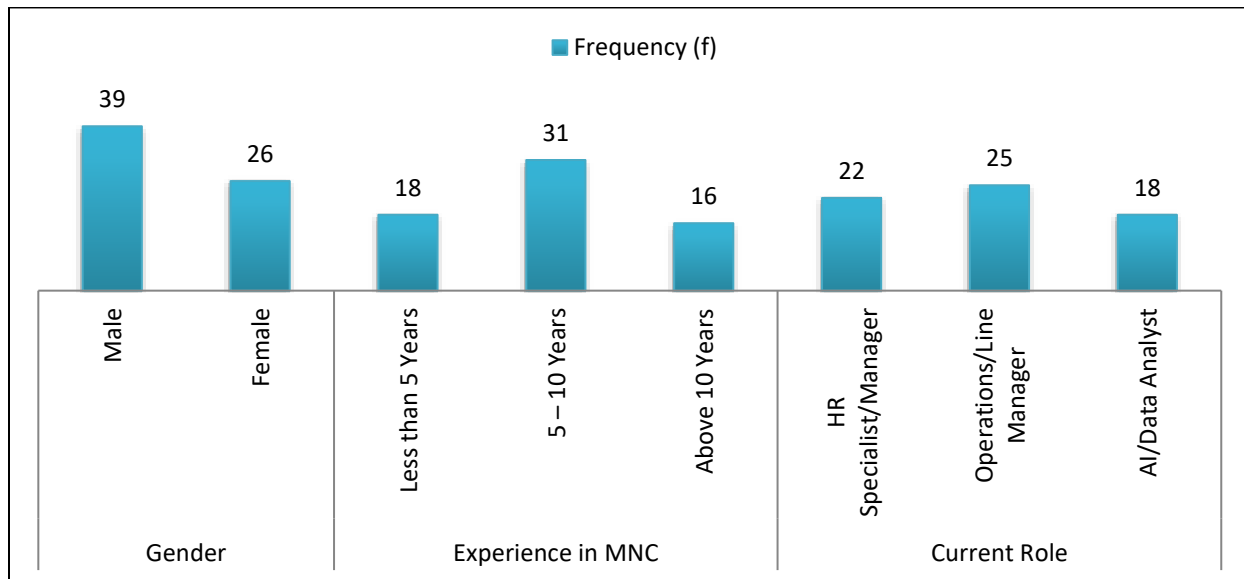


Fig 1: Demographic Profile of the Respondents

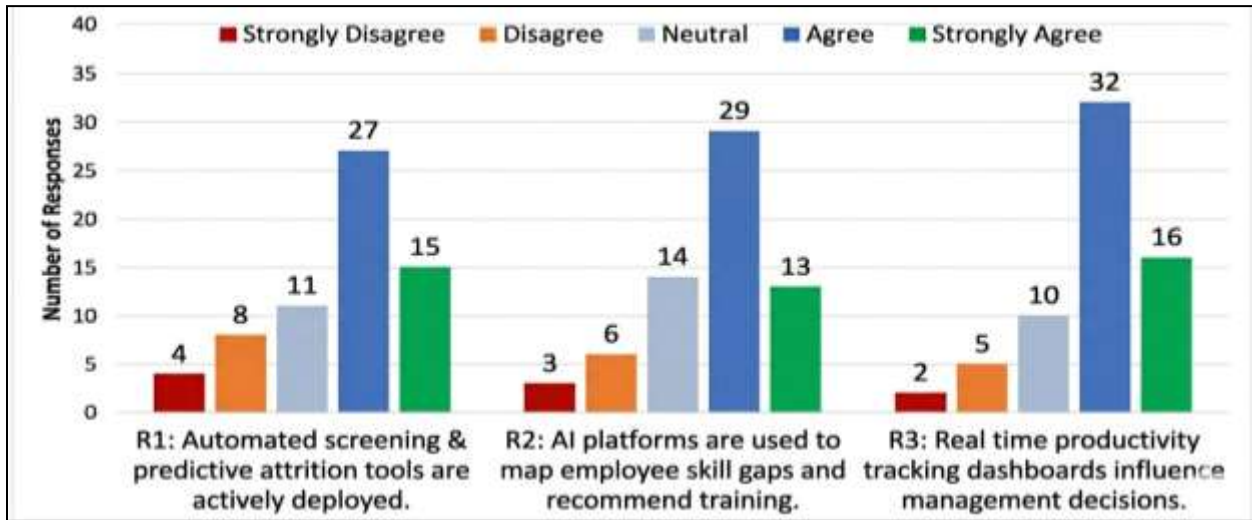


Fig 2: Adoption Level of AI-Driven HR Analytics in the Organization

Scale: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA)

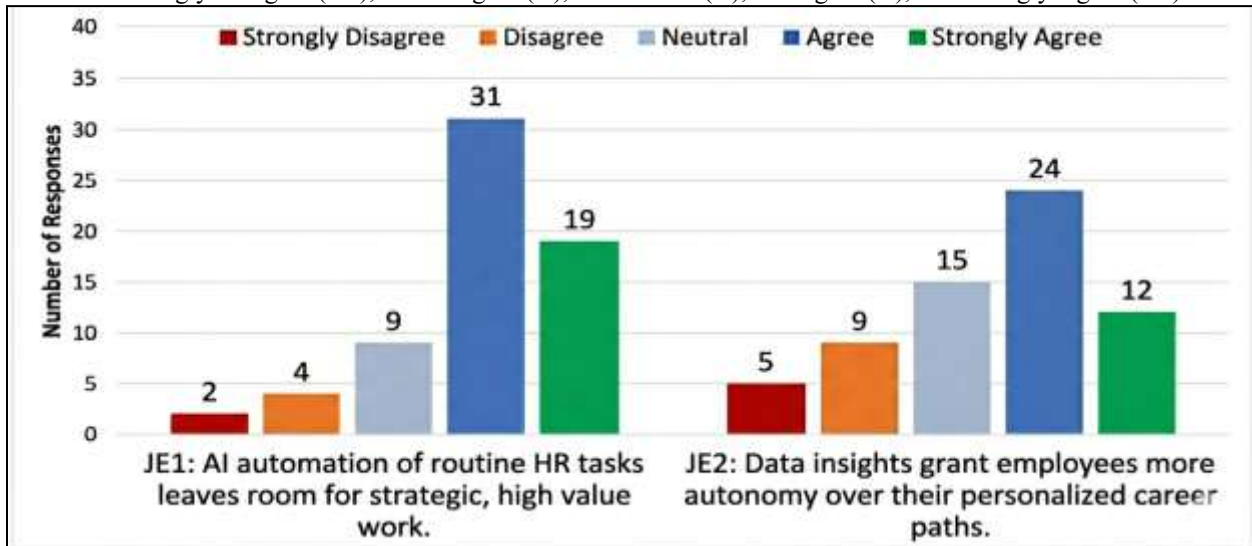


Fig 3: Impact on Job Enrichment Factors

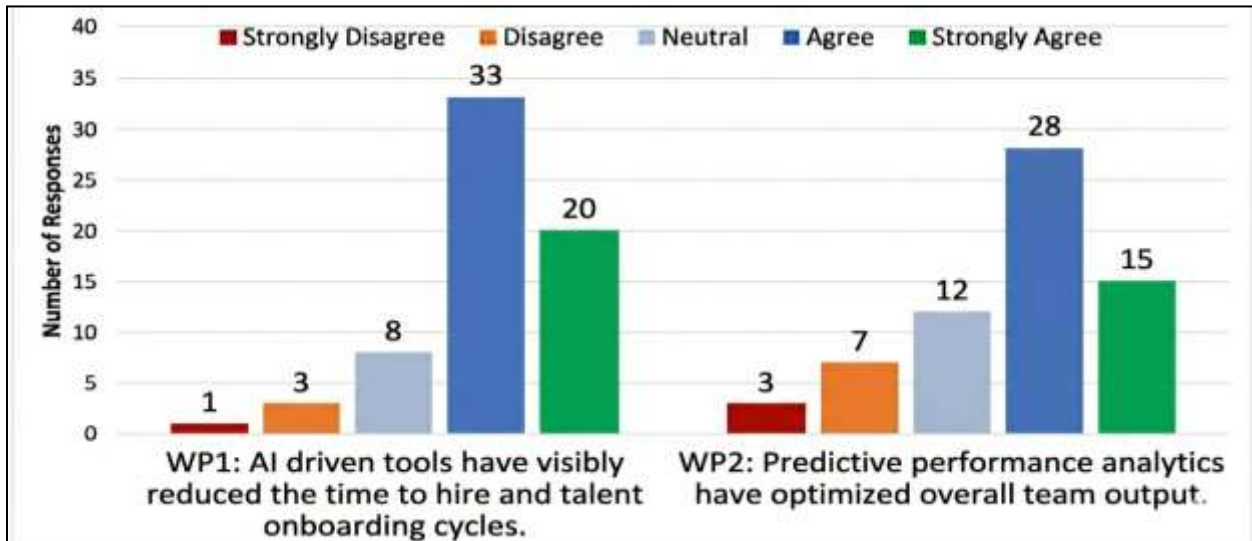


Fig 4: Perceived Workplace Productivity Outcomes

Hypotheses

- **H₀₁:** Deploying AI-driven HR analytics does not have a significant positive impact on employee job enrichment.
- **H₀₂:** AI-driven HR analytics deployments do not lead to a significant increase in workplace productivity.
- **H₀₃:** There is no significant correlation between AI-driven job enrichment and workplace productivity in the sampled MNCs.

Table 1: Descriptive Statistics and Scale Reliability

Research Construct	Number of Items	Mean Score (μ)	Standard Deviation (σ)	Cronbach's Alpha (α)
AI Adoption (AIA)	3	3.68	0.84	0.812
Job Enrichment (JOE)	2	3.74	0.91	0.789
Workplace Productivity (WPP)	2	3.92	0.78	0.834

Table 2: Model Summary and Parameter Estimates (DV: Job Enrichment)

Predictor Variable	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	p-value
Constant	1.124	0.312	—	3.603	< 0.001
AI Adoption (AIA)	0.711	0.082	0.658	8.671	< 0.001

Model Metrics: $R = 0.658$, $R^2 = 0.433$, Adjusted $R^2 = 0.424$, $F(1,63) = 48.11$, Sig. = 0.000

Table 3: Model Summary and Parameter Estimates (DV: Workplace Productivity)

Predictor Variable	Unstandardized Coefficient (B)	Standard Error	Beta (β)	t-value	p-value
Constant	1.341	0.284	—	4.722	< 0.001
AI Adoption (AIA)	0.701	0.075	0.722	9.347	< 0.001

Model Metrics: $R = 0.722$, $R^2 = 0.521$, Adjusted $R^2 = 0.513$, $F(1,63) = 68.52$, Sig. = 0.000

Table 4: Hypotheses Testing Summary Matrix

Hypothesis Code	Stated Null Hypothesis (H ₀)	Applied Statistical Test	Computed Test Value	p-value	Empirical Decision
H ₀₁	AI adoption has no significant positive impact on job enrichment.	Simple Linear Regression (F-Test)	F = 48.11	< 0.001	Rejected
H ₀₂	AI adoption has no significant positive impact on workplace productivity.	Simple Linear Regression (F-Test)	F = 68.52	< 0.001	Rejected
H ₀₃	No significant correlation between AI-driven job enrichment and productivity.	Pearson Correlation (r)	r = 0.684	< 0.01	Rejected

DISCUSSION

This study revealed the significance of AI-based HR analytics for improving efficiency in the workplace and enriching jobs in the MNCs in India. The results of the regression indicated that the AI helps in changing the HR service in two aspects, namely job enrichment, with the sum of squares of the results being more than 43% of the variance of job enrichment, and the case of productivity, with the sum of squares of the results being more than 52% of the variance of productivity. This aligns with broader perspectives on the nature of AI's role in organisations. The result of the enrichment aligns with Moagi's thought about how AI can have a profound influence across a range of HR-relevant areas, such as enhancing job autonomy and providing better career clarity. Moreover, the study conducted in this article reveals that after the implementation of AI, productivity is enhanced, and Sanyal and Chakrabarti [13] observed that AI is more like revolutionizing the digital functioning of HR in India. It is reflected in the results: Just as artificial intelligence can save HR professionals from the time-consuming repetitive tasks, as Raisch and Krakowski [14] call it, the automation augmentation paradox, HR professionals can see how AI can make their business more efficient when it comes to decision-making. Likewise, the differing work arrangements that stem from the automation of the workspace and the implementation of AI systems were significant, and the correlation between productivity (and enrichment) in this research was relatively high too. Overall, the dialogue highlights the transformative potential of AI in HR analytics as a strategic enabler for Indian MNCs to thrive and remain resilient in today's corporate landscape.

Recommendations

To maintain a competitive edge, Indian MNCs should give investments in AI-driven HR analytics solutions top priority. Companies need to invest in data systems and train HR staff to be able to interpret the data, where HR & IT need to work together. In the past, workforce agility was taken to a new level thanks to predictive modeling on skill mapping, attrition, and performance optimisation. Leadership must promote adoption of AI in any way they could do so to make it happen and get people to use analytics in decision-making- this addresses cultural resistance. Further, AI know-how in regard to the frameworks (PD) of professionals could enhance the degree of autonomy of the workers while stimulating the range of productive enrichment cycles.

Limitations and Scope for Future Research

The smaller number of respondents (65 respondents in 5 MNCs in Maharashtra only), however, makes the study not applicable to other sectors or regions. The problems of self-reported data on the Likert scale could be incorporated into perception bias. Need to improve the length of follow-up (longitudinal follow-up study), sample size, and use of different industries. Further analyses on the industry and regional levels would be desirable to get a better understanding of the variation in the spread of AI implementation. Furthermore, what would defy the sophisticated statistical method (such as structural equation) is to establish causal relationships between productivity, job richness, and the use of AI.

CONCLUSION

It can be inferred from the study results that the new era of HR analytics, with the influence of artificial intelligence, is becoming one of the key and significant drivers of change for multinationals in India. The scales of implementing AI in HR-related activities lean towards greater results of productivity that will help in the growth of the organisation and also improve job roles that will encourage people. The need for analytics appears to be a strategic need, not an additional tool, and is supported by the empirical data. The results highlight how crucial it is to include AI processes in HR operations in order to create a workforce that is more data-driven, flexible, and able to adjust to changing business circumstances.

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