KeAi
CHINESE ROOTS
GLOBAL IMPACT

International Journal of Innovation Studies

STUDY ON IMPACT OF ANALYTICS IN ENHANCING HR TACTICS

S Sasirekha
Assistant Professor, Department of Management Studies, Easwari Engineering College, Chennai, Sasirekha.s@eec.srmrmp.edu.in

Akshaya S
II Year MBA Students, Department of Management Studies, Easwari Engineering College, Chennai,310623631004@eec.srmrmp.edu.in,

Mark Abinash J
II Year MBA Students, Department of Management Studies, Easwari Engineering College, Chennai, 310623631049@eec.srmrmp.edu.in

Kaviyarasan.S
II Year MBA Students, Department of Management Studies, Easwari Engineering College, Chennai, 310623631043@eec.srmrmp.edu.in

Muralikrishna.J
II Year MBA Students, Department of Management Studies, Easwari Engineering College, Chennai, 310623631050@eec.srmrmp.edu.in

Tharunrajan.M
II Year MBA Students, Department of Management Studies, Easwari Engineering College, Chennai, 310623631107@eec.srmrmp.edu.in

Abstract:
This analysis examines how analytics may improve HR strategies with an emphasis on hiring, performance reviews, employee engagement, and retention. HR managers may maximize talent acquisition, find high-potential workers, and lower turnover by utilizing predictive analytics, machine learning, and data-driven insights and familiarity of HR analytics. The difficulties in implementing This study highlights the potential of HR analytics to propel organizational performance in a cutthroat business climate by offering insights into future trends and best practices in the field through a thorough analysis of the body of existing literature.

Keywords: HR analytics, predictive analytics, performance management

1. INTRODUCTION

As data analytics advances, HR management is changing from intuition-based approaches to data-driven decision-making. HR analytics improves hiring, efficiency, and employee engagement by analyzing workforce data using AI, machine learning, and predictive tools. Businesses need to adopt HR analytics in the current competitive landscape in order to maintain

their lead and promote expansion. Talent acquisition, performance management, employee retention, and workforce planning are just a few of the HR operations that are integrated with HR analytics. Organizations may discover high-performing individuals, forecast attrition risks, and create individualized employee development programs by examining historical data.

2. REVIEW OF LITERATURE

2.1.1 Angrave D et al., examines an emphasis on its capacity to forecast employee attrition, enhance hiring, and maximize workforce planning, this study investigates the incorporation of analytics into HR operations.

2.1.2 Marler, J. H et al., shows how HR professionals integrate data analytics into their decision-making processes, this paper examines the strategic value of HR analytics and offers a thorough framework.

2.1.3 Cascio, W. Fet al., explores how analytics affect HR decision-making and workforce planning. They describe how predictive analytics can help organizations better predict talent needs and manage workforce performance by forming long-term HR strategies.

2.1.4 Huselid, M. A et al., emphasis on how data-driven HR decisions can enhance employee performance and business outcomes, this paper explores the effect of HR analytics on organizational performance.

2.1.5 Shah, R. K et al., examines how HR can use data analytics to enhance employee engagement and retention tactics. The study demonstrates how predictive analytics can be applied to evaluate worker satisfaction, spot possible turnover hazards, and create more individualized engagement plans.

3.1 OBJECTIVES OF STUDY

- To analyze the primary users of HR analytics within organizations.
- To examine the challenges faced in implementing HR analytics.
- To assess the need for training programs in HR analytics.
- To measure the effectiveness of HR analytics in improving hiring efficiency

4. RESEARCH METHODOLOGY

4.1 RESEARCH DESIGN

A quantitative survey-based research design is used in this study to examine how workforce management is affected by HR analytics. To gather information on the use and efficacy of analytics in hiring, a structured questionnaire was sent to HR specialists, recruiters, and from no HR baground

4.2 DESCRIPTIVE RESEARCH

The study is descriptive in nature. It includes surveys and fact-finding enquiries of different kinds.

4.3 POPULATION

The study will cover on quantitative data from recruiters, HR managers, data analysts and employess with no HR baground in arostar enterprise private limited, Chennai.

4.4 TARGET RESPONDENTS

The Target Respondents of this research are recruiters and HR managers, analysts of data workers who participate in hiring decisions while having non hr experience.

4.5. SAMPLE DESIGN

The study follows a stratified random sampling approach, ensuring representation from different job role

4.6 SAMPLING METHOD

Responses are gathered using the convenience sampling method from willing and available participants who meet the target profile.
Sampling size: The sample size for the project is 120

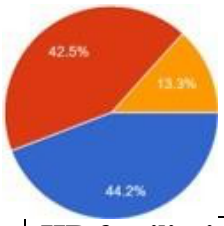
4.7 DATA COLLECTION METHODS

4.7.1 PRIMARY DATA: Gathered using structured questionnaires in an online survey Professionals with varying degrees of experience are among the respondents

4.7.2 SECONDARY DATA: This study's secondary data came from reports, prior research, and current literature on hiring trends and HR analytics. Publications, industry reports, case studies of HR analytics from businesses, and earlier studies on hiring practices are all included in this.

5. DATA ANALYSIS AND INTERPRETATION

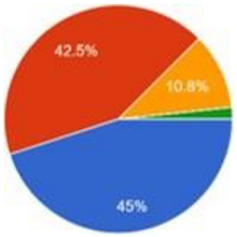
5.1.1 How do Familiar are you with HR analytics?



HR familiarity	Number of respondents	percentage of respondents
Very familiar	53	44.17%
Somewhat familiar	51	42.50%
Not familiar	16	13.33%
Total	120	100%

5.1.2 How accurate are predictive hiring models?

Predictive hiring model	Number of respondents	Percentage of respondents
Slightly accurate	56	45%
Moderately accurate	51	42.50%
Not accurate	13	10.83%
Total	120	100%



6. STATISTICAL TOOLS

6.1.1. KRUSKAL WALLIS TEST

Finding relationship between number of experience and the HR analytics Familiarity

Null Hypothesis (H_0): There is no significant difference in HR Analytics Familiarity across different Work Experience groups.

Alternative Hypothesis (H_1): There is a significant difference in HR Analytics Familiarity across different Work Experience groups.

Ranks

		N	Mean Rank
HR_analytic_familarity	below 6 years	1	2.50
	6-10 years	1	4.50
	11-15 years	1	6.00
	16-20 years	1	2.50
	21-25 years	1	4.50
	26+ years	1	1.00
	Total	6	

Test Statistics

	HR_analytic_familarity
Chi-Square	5.00
df	5
Asymp. Sig.	.416

Interpretation -Median familiarity scores appear similar across all groups, indicating that work experience does not meaningfully affect HR analytics familiarity.

Inference - The Kruskal-Wallis test ($p = 0.416$) shows no statistically significant difference in HR analytics familiarity among work experience groups, suggesting any observed differences are likely due to chance.

6.1.2. CORRELATION ANALYSIS

Finding Relationship between work experience and Predictive Hiring model

Null Hypothesis (H_0): There is no significant correlation between work experience and perception of predictive hiring model accuracy.

Alternative Hypothesis (H_1): There is a significant correlation between work experience and perception of predictive hiring model accuracy.

Correlations

		work_experience	Predictive_hiring_model
work_experience	Pearson Correlation	1.000	.189
	Sig. (2-tailed)		.761
	N	6	5
Predictive_hiring_model	Pearson Correlation	.189	1.000
	Sig. (2-tailed)	.761	
	N	5	5

Interpretation - Although there is a slight positive trend suggesting that individuals with more work experience might view predictive hiring models as more accurate, the relationship is very weak and likely due to chance.

Inference - The Pearson correlation (r = 0.189, p = 0.761) indicates no statistically significant relationship between work experience and the perceived accuracy of predictive hiring models.

6.1.3. CHI-SQUARE TEST

Finding Relationship Work Experience and Recommendation for HR Analytics

Null Hypothesis (H_0): There is no significant association between work experience and recommendation for using HR analytics in all industries.

Alternative Hypothesis (H_1): There is a significant association between work experience and recommendation for using HR analytics in all industries.

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-tailed)
Pearson Chi-Square	10.00	8	.265
Likelihood Ratio	13.46	8	.097
Linear-by-Linear Association	.59	1	.444
N of Valid Cases	10		

Interpretation- The Pearson Chi-Square value is 10.00, with df = 8 and p = 0.265. This indicates that any observed differences in recommendations across different experience levels are likely due to chance rather than a meaningful relationship.

Inference- The p-value (0.265) is greater than 0.05, we fail to reject the null hypothesis. This suggests that work experience does not have a significant impact on whether individuals recommend HR analytics for all industries.

7.1 FINDINGS, SUGGESTIONS AND CONCLUSIONS:

7.1.1. FINDINGS

- 45% of employees are somewhat familiar with HR analytics, while 35% are very familiar.
- 40% of respondents rated predictive hiring models as moderately accurate.
- 50% of respondents believe that analytics helps in finding the right candidates
- 35% of employees are preferred Quality of Hire" the most important metric by recruiters.

7.1.2. SUGGESTIONS

- Conduct data analytics workshops and HR tech certification programs to improve employee familiarity with HR analytics.
- Provide mentorship programs to help employees with less than 6 years of experience become more comfortable with HR analytics.

7.1.3 CONCLUSIONS

With quality-of-hire as a key indicator, HR analytics can increase hiring efficiency and lower expenses. However, widespread adoption is hampered by issues like high tool costs, a lack of technological skills, and data privacy concerns, as well as notable skill shortages, particularly among less experienced workers. More investment and targeted training are necessary for more successful hiring.

REFERENCES:

1. Marler, Janet H., and John W. Boudreau. (2017). "An evidence-based review of HR Analytics." The International Journal of Human Resource Management 28, no. 1 3-26.
2. Chalutz Ben-Gal, Hila. (2019). "An ROI-based review of HR analytics: practical implementation tools." Personnel Review 48, no. 6 1429-1448.
3. Fernandez, Vicenc, and Eva Gallardo-Gallardo. (2021). "Tackling the HR digitalization challenge: key factors and barriers to HR analytics adoption." Competitiveness Review: An International Business Journal 31, no. 1 162-187.
4. Vereb, Donát, Zoltán Krajcsák, and Anita Kozák. (2025). "The importance of positive employee experience and its development through using predictive analytics." Journal of Modelling in Management 20, no. 1 51-69.
5. Afrianda, Raditya Eka, and Lingga Yuliana. (2025). "Evaluation Situation Source Power Humans Understand Powers And Challenges." Multidisipliner Knowledge 3, no. 1 34-43.
6. Mabrouk, Awad. (2025). "Human Resouce Management in the Age of Artificial Intelligence: Concepts Tools and Steps." Solo International Collaboration and Publication of Social Sciences and Humanities 3, no. 01 1-12.
7. Zieglmeier, Valentin, and Alexander Pretschner. (2023). "Rethinking People Analytics with Inverse Transparency by Design." arXiv preprint arXiv:2305.09813.
8. Rink, Lois, Job Meijdam, and David Graus. (2024). "Aspect-Based Sentiment Analysis for Open-Ended HR Survey Responses." arXiv preprint arXiv:2402.04812
9. Prejith, Premlal. (2022). "HR Analytics Challenges in Bringing Success to HR Professionals." Journal of Positive School Psychology 6, no. 3: 824-832.
10. Ragimol, Dr. A. G. Sudha, and Dr. F. J. Peterkumar. (June 2021). "A Study on the Application of HR Analytics in the 4.0 Industry in a Nutshell." International Journal of Research and Analytical Reviews 8, no. 2 : 234-240.
11. Dr. Saikumari. V, Deepadharshini. B, Haritha. V, Hema Varna. J, Harikrishnan. V. (2022) “A study on user interface design in E-commerce and its impact on consumer trust, Chennai”, Industrial Engineering Journal, ISSN 0970-2555, Vol 15, Issue 1, Oct 2022.
12. Dr. Saikumari.V , “Training and organizational performance: the mediating role of e-learning in information technology industry – an empirical study”, the online journal of distance education and e-learning, july 2018 volume 6, issue 3
13. Dr. Saikumari V, A Study on Innovation and its Challenges in Sustainable Entrepreneurship in India, European Chemical Bulletin, Vol. 12, Issue 2, 2023.
14. Kathiravan, M., V. Saikumari, and V. Sunitha. 2017. Convergence in Effective Performance Appraisal System Technique: Foster Employee Involvement and Organizational

Commitment, Evidence from Indian SMEs. Asian Journal of Research in Banking and Finance 7: 87–110.
15. Dr. Saikumari V, A Study on Innovation and Its Challenges in Sustainable Entrepreneurship in India, European Chemical Bulletin, Vol. 12, Issue 2, 2023
16. Dr. Saikumari.V, "Training and organizational performance: the mediating role of e-learning in information technology industry – an empirical study", the online journal of distance education and e-learning, july 2018 volume 6, issue 3
17. Dr. Saikumari. V, Deepadharshini. B, Haritha. V, Hema Varna. J, Harikrishnan. V. "A study on user interface design in E-commerce and its impact on consumer trust, Chennai", Industrial Engineering Journal, ISSN 0970-2555, Vol 15, Issue 1, Oct 2022.
18. Dr. Saikumari V, (2023), A Study on Work Life Balance and Business Development Strategy: A High Growth Approach in The Corporate World, European Chemical Bulletin, 12(2).
19. Dr. Saikumari V, Arunraj A. "Challenges of eHealth and current developments in eHealth applications: An overview", EAI Endorsed transactions on smart cities, doi: 10.4108/eetsc.v6i18.2261
20. Dr. Saikumari.V , "Training and organizational performance: the mediating role of e-learning in information technology industry – an empirical study", the online journal of distance education and e-learning, july 2018 volume 6, issue 3.
21. Kavitha Muthukumaran, Vani Haridasan, (2022), Proliferation of Digital Payments in India: A Pathway to Cashless Economy, ECS Transactions, Volume 107 (1) pp. 8777.
22. Haridasan, V., & Muthukumaran, K. (2021). Work–life balance of women working from home during lockdown – An empirical study. International Journal of Management, 13. https://doi.org/10.34218/IJM.12.1.2021.042
23. K. Muthukumaran and K. Hariharanath, "Deep learning enabled financial crisis prediction model for small-medium sized industries," Intelligent Automation & Soft Computing, vol. 35, no.1, pp. 521–536, 2023. DOI: https://doi.org/10.32604/iasc.2023.025968
24. Dr. Kavitha Muthukumaran, Dr. Vani Haridasan, (2024) Tech-Enhanced Eco-Inclusion: Empowering Street Vendors Through Environmental Technology Integration Under PM Svanidhi Scheme, African Journal of Biological Sciences(South Africa), 6(6), 726-735.
25. Muthukumaran, K., Haridasan, V., Mahalingam, B., Hariharanath, K., & Yuvaraj, D..(2024). Investigating The Aftermath: Factors Shaping the Well-Being Of Adolescent Girls And Young Women In The Wake Of The Pandemic. Migration Letters, 21(S3), 1511–1523. Retrieved from https://migrationletters.com/index.php/ml/article/view/7605