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Adoption and Usage of Artificial Intelligence in Human Resource Professionals

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Abstract

This research looks into the use of Artificial Intelligence (AI) by people in charge of Human Resources (HR) in companies in India. The study used a type of research called quantitative and descriptive research. It used a model called Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) to figure out how likely people in charge of HR and employees are to use AI. Seventy-two people were questioned to see how much they know about AI, if they like it and what it means for HR tasks like recruiting, training, managing performance and making employees happy. Half of the people said they liked AI and wanted to use it. The people who were older, had more education and worked in different kinds of businesses liked it more. But they still had some problems. 52.8% said they already used AI tools. The study said that if you like something, you will use it. The model worked well in the HR department of companies in India. But if the company did not have the money, the right people or the right computers, it would be hard to use AI. AI made HR jobs more efficient and helped people make better decisions. The study had some advice for companies who wanted to use AI to make it work better. They should tell their people about AI, train them, help them learn new things and give them the right computers.

Key Words: *Artificial Intelligence (AI), Human Resources (HR), HR Professionals, Technology Adoption, UTAUT2 Model, Behavioral Intention, Use Behaviour.*

I. INTRODUCTION

This study explores the adoption and usage of Artificial Intelligence (AI) in Human Resource Professionals focusing on essential HR functions such as recruitment, training, performance management, employee engagement, and workforce planning. It investigates the relationship between AI adoption and HR operational effectiveness while assessing how extensively AI technologies are implemented within organizations. AI adoption serves as a strategic framework that helps organizations manage key HR functions with enhanced efficiency, accuracy, and alignment with business objectives. Through an in-depth literature review and empirical analysis using the UTAUT2 model, this research examines the impact of AI tools on employee behavioral intentions, actual usage patterns, and overall HR performance. The findings provide valuable insights into the effectiveness of AI implementation strategies and offer comprehensive recommendations for organizations aiming to enhance HR performance through well-structured AI adoption initiatives, adequate technical infrastructure, and comprehensive training programs.

II. METHODOLOGY

A. AIM OF THE STUDY

The main aim of the study is to understand the level of adoption and usage of Artificial Intelligence (AI) in Human Resource Professionals and to analyze its impact on HR practices.

B. SCOPE OF THE STUDY

- The study is limited to HR professionals and employees working in selected organizations.
- It focuses on the adoption and usage of AI in major HR functions such as recruitment, training, performance management, and employee engagement.
- The study helps organizations understand the importance and challenges of AI in HR Professionals.

C. OBJECTIVES OF THE STUDY

- To study the socio-demographic profile of the respondents.
- To measure the level of AI usage behaviour and behavioral intention of the respondents.
- To find out the association between socio-demographic profile, behavioral intention and use behaviour of the respondents.
- To find out the relationship between behavioral intention and use behaviour of the respondents.
- To suggest suitable Social Work Intervention for the study.

D. RESEARCH DESIGN

The research adopted a Descriptive Research Design to systematically describe the phenomenon under study and examine relationships between variables without altering the natural environment. This design facilitates an understanding of the characteristics, perceptions, and behavioral patterns of respondents based on real-world data.

E. RESEARCH APPROACH

The study adopts a quantitative research approach. Statistical data were collected through a structured

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questionnaire to assess employees' awareness, perceptions, behavioural intention, and actual usage patterns in their professional practices. The collected numerical data were analyzed using appropriate statistical tools to identify relationships and draw meaningful conclusions. This approach ensures objectivity, accuracy, and reliability in understanding the study variables.

III. REVIEW OF LITERATURE

A literature review is a scholarly analysis summarizing existing research on a specific subject. It provides an overview of theoretical insights and practical findings, serving as a foundation for further studies. Unlike original research, literature reviews focus on secondary sources and do not introduce new experimental data.

Key studies:

- **Tanantong (2024)** conducted a quantitative study on AI adoption in HR using TAM and UTAUT models with 220 HR employees selected through stratified sampling. The findings revealed that perceived usefulness, ease of use, trust, and organizational support significantly influence adoption. The study recommended proper training and clear communication to reduce resistance among HR professionals.

- **Meijerink and Keegan (2021)** carried out a qualitative case study involving 35 senior HR professionals from multinational companies. The study found that AI improves accuracy and consistency in HR decisions but raises concerns about transparency and trust. It concluded that AI should support, not replace, human decision-making.

IV. ANALYSIS

ASSOCIATION BETWEEN ORGANIZATION SECTORS AND LEVEL OF BEHAVIORAL INTENTION OF THE RESPONDENTS

Organization Sectors of the Respondents	Level Of Behavioral Intention			
	Low	Moderate	High	Total
IT - Information Technology	6	22	10	38
Manufacturing	10	6	2	18
Consulting	2	8	6	16
Total	18	36	18	72

CHI-SQUARE TEST

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.901[a]	4	0.012

HYPOTHESIS:
(H0) There is no significant association between organization sectors and level of behavioral intention of the respondents.

INTERPRETATION:
The chi-square test was applied to find the association between organization sectors and level of behavioral intention of the respondents. The calculated chi-square value is 12.901 with 4 degrees of freedom and the corresponding asymptotic significance (p-value) is 0.012, which is lower than the 0.05 level of significance. Hence, there is significant association between organization sectors and level of behavioral intention of the respondents, and the stated hypothesis is rejected.

ASSOCIATION BETWEEN ORGANIZATION SECTORS AND LEVEL OF USER BEHAVIOR OF THE RESPONDENTS

Organization Sectors of the Respondents	Level Of User Behavior			
	Low	Moderate	High	Total
IT - Information Technology	6	22	10	38
Manufacturing	6	10	2	18
Consulting	4	6	6	16
Total	16	38	18	72

CHI-SQUARE TEST

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.101[a]	4	0.277

HYPOTHESIS:
(H0) There is no significant association between organization sectors and level of user behavior of the respondents

INTERPRETATION:
The chi-square test was applied to find the association between organization sectors and level of user behavior of the respondents. The calculated chi-square value is 5.101 with 4 degrees of freedom and the corresponding asymptotic significance (p-value) is 0.277, which is higher than the 0.05 level of significance. Hence, there is no significant association between organization sectors and level of user behavior of the respondents, and the stated hypothesis is accepted.

RELATIONSHIP BETWEEN BEHAVIORAL INTENTION AND USE BEHAVIOUR OF THE RESPONDENTS.

Pearson Correlation	Behavioral Intention	Use Behavior
Behavioral Intention	1	.996**
Use Behavior		1

**. Correlation is significant at the 0.01 level

HYPOTHESIS:
(H0) There is no significant relationship between behavioral intention and use behavior of the respondents.

INTERPRETATION:
The Table shows the relationship between behavioral intention and use behavior of the respondents. Pearson correlation coefficient between behavioral intention and use behavior is

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0.996, which is significant at the 0.01 level ($p < 0.01$). This indicates a very strong positive correlation between behavioral intention and use behavior of the respondents, and the stated hypothesis is rejected.

V. SUGGESTION & RECOMMENDATIONS

- Conduct regular AI awareness programmes for HR professionals.
- Provide age-related AI training to develop skills and confidence.
- Practical AI skill development investments on core HR function.
- Sector-specific AI strategies based on best practices.
- Promote a regular hands-on use of AI in everyday HRM-related activities.
- Create a positive attitude in the employees toward AI while mitigating their fears.
- Ensure strong technical infrastructure and IT support for artificial intelligence systems.
- Set up ethical codes and human control over AI-driven HR decisions.

VI. SOCIAL WORK INTERVENTION

Social work intervention methods can help eliminate employee anxieties about using and implementing Artificial Intelligence (AI) within the Human Resources profession through outreach, professional development, and open communication, thus creating confidence and acceptance of AI applications for recruitment, training, and performance management. AI's Applications for Recruitment, Training, and Performance Management Assist HR Professionals in Meeting Employees' Rights to Transparency and Fairness, Data Privacy, and Human Oversight by Creating Trust with Employees, Providing Feedback, Providing Emotional Support, and Providing Continuous Evaluation of How AI has Improved Efficiency and Productivity in Employment, As Well As an Environment that is Dignified, Inclusive and Positive for Building Workplace Relationships.

VII. CONCLUSION

This study offers a focused understanding of how Artificial Intelligence is being adopted and used in Human Resource Professionals across selected Indian organizations. The findings show that half of the respondents report a moderate level of behavioural intention, and 52.8% demonstrate moderate use behaviour, indicating cautious but positive movement toward AI-enabled HR practices. IT sector organizations lead in adoption, while manufacturing and consulting sectors progress more slowly due to gaps in infrastructure, skills, and organizational readiness. Significant links between age, education, sector, and behavioural intention, alongside a very strong positive correlation between intention and use behaviour, support the relevance of the UTAUT2 framework in this context. Strengthening awareness, providing age-specific training and capacity building, improving technical and ethical infrastructure, and applying social work interventions can accelerate responsible AI integration, improve HR efficiency, and enhance employee confidence and trust in AI-driven HR systems.

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