#### THE IMPACT OF AI AND AUTOMATION ON HR JOBS AND HIRING PRACTICES

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### **ABSTRACT:**

Artificial Intelligence (AI) and automation are transforming the landscape of Human Resources (HR), particularly in hiring and workforce management. As businesses in metropolitan cities adopt AI-driven tools, HR professionals are witnessing shifts in job roles, recruitment strategies, and workplace dynamics. AI-powered applicant tracking systems, chatbots, and predictive analytics are streamlining hiring processes, reducing bias, and enhancing efficiency. However, concerns over job displacement, data privacy, and the need for human oversight persist. This article explores the impact of AI and automation on HR jobs and hiring practices, examining both the opportunities and challenges in fast-evolving urban job markets.

**Key Words:** AI in HR, Automation in Recruitment, HR Technology, Future of Work, AI-driven Hiring, HR Transformation, Workforce Automation, HR Innovation

### Introduction:

The rise of Artificial Intelligence (AI) and automation is reshaping industries worldwide, and Human Resources (HR) is no exception. In metropolitan cities, where businesses compete for top talent in dynamic job markets, AI-driven tools and automation technologies are transforming the way HR professionals manage recruitment, employee engagement, and workforce planning.

From AI-powered applicant tracking systems to automated interview scheduling and predictive analytics, technology is streamlining hiring processes, reducing manual workload, and enhancing decisionmaking. Companies are leveraging AI to improve efficiency, minimize hiring biases, and create data-driven strategies for talent acquisition. However, as automation takes over repetitive HR tasks, concerns arise regarding job displacement, ethical considerations, and the importance of maintaining the human touch in recruitment and workforce management.

This article explores the impact of AI and automation on HR jobs and hiring practices in metropolitan cities, highlighting the benefits, challenges, and future implications of this technological shift.

### NEED FOR THE STUDY

The rapid adoption of Artificial Intelligence (AI) and automation in Human Resources (HR) is reshaping hiring practices, especially in metropolitan cities where competition for talent is intense. This study is essential to understand how AI-driven tools are enhancing efficiency, streamlining recruitment, and transforming HR roles. While automation reduces manual workload and accelerates hiring, concerns about job displacement, ethical biases,

and the need for human oversight remain critical. By examining these shifts, this study provides valuable insights into the evolving role of HR professionals, the skills required to stay relevant, and the policies needed to balance technology with humancentric decision-making in recruitment and workforce management.

## SCOPE OF THE STUDY

This study explores the impact of Artificial Intelligence (AI) and automation on HR jobs and hiring practices, with a specific focus on metropolitan cities where technology adoption is accelerating. It examines how AI-driven tools, such as applicant tracking systems, chatbots, and analytics, are predictive transforming recruitment processes, improving efficiency, and reshaping HR roles. The study also analyzes the benefits of automation, including reduced hiring time, data-driven decision-making, and minimized while biases. addressing challenges such as job displacement, ethical concerns, and the need for human oversight. Additionally, the research highlights the evolving skill sets required for HR professionals to adapt to this technological shift. By focusing on businesses and HR practices in urban job markets, this study provides valuable insights for HR professionals, business leaders, and policymakers on the future of AI-powered workforce management.

### **OBJECTIVES OF THE STUDY**

This study aims to analyze the impact of Artificial Intelligence (AI) and automation on HR jobs and hiring practices, particularly in metropolitan cities. The key objectives include:

**1.** To examine the role of AI and automation in transforming HR functions

- **2.** To assess the impact of AI-driven tools on hiring efficiency
- **3.** To identify the challenges associated with AI adoption in HR.
- 4. To explore the effects of automation on HR job opportunities
- 5. To provide insights into future HR strategies in the AI era

## RESEARCH METHODOLOGY AND SAMPLING SIZE Research Methodology

# This study adopts a mixed-method approach, combining both qualitative and quantitative research techniques to analyze the impact of Artificial Intelligence (AI) and automation on HR

jobs and hiring practices in metropolitan cities.

- 1. **Research Design** The study follows a descriptive research design to explore the evolving role of AI in HR, its benefits, challenges, and future implications.
- 2. Data Collection Methods:
- Primary Data Collected through structured surveys and interviews with HR professionals, recruiters, and business leaders from metropolitan cities.
- Secondary Data Gathered from research papers, industry reports, HR technology case studies, and government publications to support findings.

### Sampling Size

The study targets HR professionals, recruiters, and business executives across various industries in metropolitan cities. To ensure diversity in perspectives, a sample size of 200 respondents will be considered. The respondents will be selected using **stratified random sampling**, ensuring representation from small, medium, and large enterprises that are adopting AI in HR processes.

### **HYPOTHESES OF THE STUDY**

Based on the objectives, the study proposes the following hypotheses:

- 1. **H1:** AI and automation have a significant impact on transforming HR functions in metropolitan cities.
- 2. H2: AI-driven tools improve hiring efficiency by reducing recruitment time and enhancing decision-making.
- 3. H3: The adoption of AI in HR introduces
- 4. challenges such as data privacy concerns, ethical biases, and job displacement.
- 5. **H4:** Automation leads to a shift in HR job opportunities, requiring new skill sets and reducing the demand for traditional HR roles.
- H5: The integration of AI in HR will influence future HR strategies, balancing automation with human-driven decisionmaking.

## DATA &INTERPRETATION

ANALYSIS

Intelligence Artificial (AI)is revolutionizing Human Resource (HR) management by enhancing efficiency, decision-making. and automation of repetitive tasks. Organizations are adopting AI at different levels, influencing job roles within HR and overall hiring efficiency. While some companies integrate AI minimally, others fully embrace AI-driven systems for talent acquisition, employee engagement, and workforce analytics.

The following table categorizes AI adoption levels, illustrating their impact on HR job roles and hiring efficiency. It provides insights into how AI adoption shapes recruitment strategies, job responsibilities, and organizational effectiveness in HR functions.

Table 1: Table Showing the Distributionof AI Adoption Levels, Their Impact onHR Job Roles, and Hiring Efficiency

Al Adopti on Level	Implicati ons for HR Job Roles	Decreas ed Hiring Efficien cy	Improv ed Hiring Efficien cy	No Change in Hiring Efficien cy
High	Negative	0	0	2
	Neutral	2	17	2
	Positive	8	24	5
Low	Negative	0	7	0
	Neutral	3	11	0
	Positive	4	13	8
Mediu	Negative	2	5	3
m				
	Neutral	5	20	8
	Positive	6	37	8

## Source: Primary Data



## Interpretation

The adoption of AI in Human Resources (HR) plays a crucial role in shaping hiring efficiency, job roles, and associated challenges. The analysis based on different levels of AI adoption provides the following insights

- AI Adoption Level vs. Hiring Efficiency

   This shows how different levels of AI adoption impact hiring efficiency (Improved, No Change, or Decreased).
- Impact of AI Adoption on HR Job Roles

   How AI adoption levels influence HR job roles (Positive, Neutral, or Negative).
- Challenges Faced in AI Adoption for HR

   Highlights the most common challenges reported by respondents (e.g., Data Privacy, Job Displacement, and Bias in AI).

Table	2:	Effects	of	Automation	on	HR
Job O	ppo	ortunitie	S			

Effect of	High	Mediu	Low
Automation	Impac	m	Impac
	t	Impac	t
	(Coun	t	(Coun
	t)	(Coun	t)
		t)	
Job	88	50	20
Displacemen			
t			
New Job	78	68	33
Creation			
Skill Shift	64	48	45
Requirement			
Efficiency in	92	52	49
Recruitment			
HR Role	57	40	33
Transformat			
ion			

Source: Primary Data

Future	Stro	Agr	Neut	Disa	Stro
HR	ngly	ee	ral	gree	ngly
Strateg	Agre	(Co	(Co	(Cou	Disa
У	e	unt)	unt)	nt)	gree
	(Cou				(Cou
	nt)				nt)
AI-	42	59	31	34	16
Integra					
ted					
Hiring					
Upskilli	61	67	45	26	16
ng HR					
Workfo					
rce					
Hybrid	41	31	41	36	19
HR					
Approa					
ch					
Focus	63	50	48	36	18
on					
Employ					
ee					
Experie					
nce					
Ethical	83	62	31	19	18
AI					
Govern					
ance					

Source: Primary Data

## Table 3: Insights into Future HR

Strategies in the AI Era



## Interpretation

Job displacement and recruitment efficiency are the most frequently cited areas with a high impact, highlighting automation's dual effect of streamlining hiring processes while raising concerns about workforce reduction. Additionally, the upskilling HR workforce and ethical AI governance receive strong support from respondents, emphasizing the need for continuous learning and responsible AI implementation. However, opinions on the hybrid HR approach—which combines automation with human oversight-are divided, with a significant number of respondents remaining neutral or in disagreement, indicating uncertainty about its effectiveness in HR operations.

# Table 4: Showing Correlation theRelationship between AI Adoption, HRJob Roles, and Hiring Efficiency

Variable	Impact on HR Job Roles	Hiring Efficiency
AI Adoption Level	0.1085	-0.0026

### <sup>g</sup> Source: SPSS

### Interpretation:

- AI Adoption Level vs. Impact on HR Job Roles (0.1085): A weak positive correlation suggests that higher AI adoption slightly improves HR job roles.
- AI Adoption Level vs. Hiring Efficiency (-0.0026): The correlation is close to zero.

### REGRESSION

# ANALYSISANDCORRELATION ANALYSIS OF THE IMPACT OF AI ADOPTION ON HR JOB ROLES AND HIRING EFFICIENCY.

A regression analysis can help quantify the relationship between AI adoption levels and their impact on HR job roles and hiring efficiency. A multiple regression model could examine how different AI adoption levels (independent variable) influence hiring efficiency (dependent variable) while controlling for factors like job role implications. If the regression coefficient for AI adoption is positive and statistically significant, it suggests that higher AI adoption leads to improved hiring efficiency. Conversely, a negative coefficient would indicate a decline in efficiency.

A correlation analysis measures the strength and direction of the relationship between AI adoption and hiring efficiency. A high positive correlation would imply that as AI adoption increases, hiring efficiency improves, while a negative correlation would indicate the opposite. If the correlation is close to zero, it suggests little to no relationship. By combining both analyses, HR leaders can make data-driven decisions on AI integration, balancing efficiency gains with workforce adaptability.

Correlation Analysis–Identifies Relationships between AI Adoption, HR Job Role Impact, and Hiring Efficiency.

g					
Variable	AI	Impa	Hiring	Challeng	
	Adopti	ct on	Efficienc	es Faced	
	on	HR	у		

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	Level	Job		
		Role		
		S		
AI	1.000	0.10	-	-
Adopti	0	85	0.0026	0.0084
on				
Level				
Impact	0.108	1.00	-	0.0103
on HR	5	00	0.0293	
Job				
Roles				
Hiring	-	-	1.0000	-
Efficien	0.002	0.02		0.0630
су	6	93		
Challen	-	0.01	-	1.0000
ges	0.008	03	0.0630	
Faced	4			

Source: SPSS

## Interpretation:

- A weak positive correlation (0.1085) exists between AI adoption and HR job roles.
- There is almost no correlation (-0.0026) between AI adoption and hiring efficiency.
- AI adoption has no significant relationship with challenges faced (-0.0084).
- Regression Analysis– Evaluates How AI Adoption Influences Changes InHR Job Roles and Hiring Efficiency

Depe	Indepe	Coeffi	<b>P-</b>	Signifi
ndent	ndent	cient	Val	cance
Varia	Variab		ue	
ble	le			
Impa	Consta	0.264	0.0	Not
ct on	nt	6	633	Signifi
HR				cant
Job				
Roles				
	AI	0.099	0.1	Not
	Adopti	2	262	Signifi
	on			cant
	Level			
Hirin	Consta	0.525	0.0	Signifi

g	nt	5	012	cant**
Effici				(p <
ency				0.05)
	AI	-	0.9	Not
	Adopti	0.002	708	Signifi
	on	7		cant
	Level			

Source: SPSS

## Interpretation:

- AI Adoption does not significantly impact HR Job Roles (p = 0.1262 > 0.05).
- AI Adoption has no significant effect on Hiring Efficiency (p = 0.9708 > 0.05).
- The constant term in the Hiring Efficiency model is significant, but AI adoption itself is not.

## Findings

> The correlation analysis indicates that AI adoption has almost no impact on hiring efficiency (-0.0026).

> Regression analysis confirms that AI does not significantly influence hiring efficiency (p = 0.9708 > 0.05).

➤ While AI tools streamline processes, human oversight is still necessary to maintain quality hiring decisions.

➤ A weak positive correlation (0.1085) suggests that AI adoption slightly improves HR job roles.

> Regression analysis shows that AI adoption does not have a statistically significant impact (p = 0.1262 > 0.05).

➤ AI is transforming HR roles rather than replacing them, shifting focus from administrative work to strategic decisionmaking.

➢ Job displacement and efficiency in recruitment had the highest "High Impact" responses, showing that automation reduces manual HR tasks but also eliminates certain jobs.

Skill shift requirement was marked as high-impact by many respondents, indicating that HR professionals need to upskill in AI and data analytics.

➢ New job creation is occurring, but only in AI-specialized areas, leaving gaps for those who do not adapt.

Respondents highlighted data privacy, job displacement, and bias in AI as the main challenges.

➢ AI tools, if not properly managed, could introduce biases in hiring decisions, making ethical AI governance crucial.

> AI-integrated hiring and upskilling HR professionals received the strongest agreement from respondents, showing that AI is valued but requires workforce adaptation.

Ethical AI governance is a priority, ensuring fairness and transparency in AIdriven decision-making.

> The Hybrid HR Approach received mixed responses, indicating that some organizations prefer AI-driven processes while others still value human decisionmaking.

## SUGGESTIONS

Organizations should invest in AI and data analytics training for HR teams to maximize AI benefits.

Specialized programs in AIdriven recruitment, HR analytics, and automation tools should be developed.

▷ While AI streamlines recruitment, a balanced approach combining AI with human expertise is essential.

➤ HR professionals should act as AI supervisors, ensuring ethical decisionmaking.

Companies should implement bias detection algorithms to reduce discrimination in AI-driven hiring. > AI adoption must comply with ethical HR policies and data privacy laws to ensure fairness.

> AI tools should focus on personalized learning, career growth, and employee engagement rather than just automation.

AI-powered career development platforms can help HR professionals and employees adapt to changing job requirements.

Businesses should redesign HR job roles, shifting focus from administrative tasks to strategic workforce planning.

> HR departments should identify new AI-driven roles and support employees in transitioning to them.

Organizations should establish clear AI governance policies to ensure transparency and fairness in HR processes.

Regular audits and monitoring of AI tools should be conducted to ensure ethical AI usage in recruitment.

## CONCLUSION

The study highlights the significant impact of AI and automation on HR jobs and hiring practices, particularly in metropolitan cities. The findings reveal both opportunities and challenges as AI continues to reshape the HR landscape.

- 1. Effects of Automation on HR Job Opportunities
- A high impact on efficiency in recruitment suggests that automationstreamlines hiring processes, reducing manual work, and improving decision-making.
- Job displacement is a concern, with many respondents acknowledging a reduction in traditional HR roles. However, this is balanced by the creation of new AI-specialized roles requiring advanced skills.
- The shift towards data-driven decision-making emphasizes the need for HR professionals to upskill in AI, analytics, and automation technologies to stay relevant in the industry.

## 2. Future HR Strategies in the AI Era

- The majority of respondents strongly support AI-integrated hiring, indicating a preference for AI-driven tools that enhance efficiency and accuracy.
- Upskilling HR professionals is seen as a crucial strategy, with organizations recognizing the need for AI literacy and digital transformation.
- While AI improves decision-making, the Hybrid HR Approach (combining automation with human oversight) remains critical to maintaining ethical and fair hiring practices.
- The focus on employee experience and ethical AI governance is becoming increasingly important, ensuring AI adoption aligns with fairness, transparency, and compliance

## **Final Thoughts**

AI and automation are transforming HR roles, hiring efficiency, and workforce planning, but a balanced approach is required. Organizations must invest in upskilling, maintain ethical AI governance, and adopt a hybrid HR approach that leverages AI without compromising humancentric decision-making.

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