



## A Study on Employee Perspectives on Integrating Artificial Intelligence in Human Resource Process.

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### ABSTRACT

As organizations increasingly embrace technological advancements, the integration of Artificial Intelligence (AI) into Human Resources (HR) processes emerges as a significant area of focus. This study delves into the evolving landscape of AI adoption in HR and its impact on employee experiences, alongside exploring associated ethical considerations. Through a quantitative approach utilizing surveys with open and closed-ended questions among HR professionals, the research seeks to address its key objectives.

Firstly, it identifies the extent of AI implementation in HR processes across industries. Secondly, it examines employee perceptions and attitudes towards AI in HR and its implications for the future of work. Thirdly, it investigates the relationship between AI adoption in HR and various aspects of employee experiences. Fourthly, it evaluates the effectiveness of training on AI tools in HR. Fifthly, it identifies challenges organizations face in integrating AI into HR processes. Lastly, it assesses the ethical considerations associated with AI adoption in HR.

The findings of this study reveal varying degrees of AI integration across HR functions, with recruitment and selection processes leading the adoption. While employees generally perceive AI adoption positively, concerns regarding loss of human touch, fairness, bias, and job displacement emerge as barriers.

The study proposes comprehensive training programs, ongoing education, fostering a culture of transparency, bias detection measures, and tailored implementation strategies to address challenges and maximize the benefits of AI in HR. Through these insights, organizations can navigate the complexities of AI integration, ensuring ethical practices, and fostering employee engagement and organizational success in the AI-driven HR landscape. Additionally, it highlights the need for ongoing research to address industry-specific nuances, emotional impacts, and employee engagement in the context of AI-driven HRM.

Keywords: Artificial Intelligence, human resources, employee experiences, ethical considerations, AI adoption, training programs, organizational challenges.

### 1. Introduction

AI simulates human intelligence in robots, allowing them to think and act similarly to humans. It can do activities faster and more accurately than humans, including speech recognition, decision-making, and problem solving. Artificial intelligence (AI) has gained attention for its potential to transform traditional work practices. Artificial intelligence (AI) has revolutionized workplace processes in recent years by streamlining operational procedures and enabling data-driven decision-making. Artificial intelligence is becoming increasingly widespread in several fields, including human resources.

Artificial intelligence (AI) can manage large amounts of data and finish tasks faster than humans. AI will transform HR operations in a variety of ways, including automating time-consuming activities such as resume screening and providing data-driven insights for decision-making. Using artificial intelligence, HR professionals may focus on more strategic, value-adding tasks. While AI-driven HRM has potential, it also poses ethical challenges, particularly concerning its impact on employees. As AI becomes more prevalent in organizational operations, there are concerns about its impact on the workforce. Despite the obvious benefits, some HR professionals are resisting its use.

- Can AI really handle the complexities of human resources?
- Can they bring the human touch to HR?
- Is it the future, and are human HR jobs in danger?
- Will AI augment employees' capabilities and productivity, or will it lead to job displacement and deskilling?
- Is AI free from biasness?

This thesis seeks to explore “Employee perspectives on integrating AI in HR process.”

Specifically, the study will delve into key themes such as AI adoption in HR process, employee experience and perceptions, employee concerns and ethical considerations. This thesis uses a quantitative study using surveys with open and closed ended questionnaire conducted among employees.

### **1.1 Research Problem**

To what extent does the adoption of AI in HR influence employee experiences and what are the associated ethical considerations and organizational implications?

The integration of artificial intelligence (AI) into Human Resources (HR) practices has become increasingly prevalent in contemporary organizations. While AI offers potential benefits such as enhanced efficiency and data-driven decision-making, its implementation raises significant questions regarding its impact on employees. The lack of clarity in these areas creates uncertainty and potential risks for individuals, organizations, and society as a whole. Failure to address these critical concerns could lead to: disengaged workforce, widening skill gaps and inequalities, loss of trust, unethical and discriminatory practices etc.

### **1.2 Review of literature**

The literature review conducted by Nimit J Ganatra and Jainasha D Pandya (Ganatra & Pandya, 2023; Pathak, 2023) explores the transformative effects of artificial intelligence (AI) on human resource (HR) practices and employee experiences. Through a comprehensive examination of current research, the review highlights AI's potential to revolutionize recruitment, training, performance management, and employee engagement within organizations. While acknowledging the positive impacts of AI integration, such as efficiency improvements and enhanced decision-making, the review also emphasizes the importance of addressing ethical considerations and potential job displacement. Furthermore, limitations such as publication bias, language bias, and scope constraints are identified, suggesting avenues for future research to delve deeper into the multifaceted implications of AI in HR.

The literature review titled "The Future of Work: AI, Automation, and the Changing Dynamics of Developed Economies" authored by Mohd Faishal, Saju Mathew, Kelengol Neikha, Khriemenuo Pusa, and Tonoli Zhimomi examines the evolving landscape of work in developed economies amidst the rise of artificial intelligence (AI) and automation technologies. Through an extensive analysis of existing research, the review explores how AI and automation are impacting various aspects of the labor market, including employment patterns, job roles, and skills requirements. Key findings highlight the potential for AI and automation to enhance productivity, drive innovation, and create new job opportunities in certain sectors. However, the review also addresses concerns related to job displacement, skill mismatches, and socioeconomic inequalities arising from technological disruptions. Overall, the paper provides valuable insights into the complex dynamics of the future of work in developed economies, emphasizing the importance of adaptive policies and strategies to maximize the benefits of AI and automation while mitigating potential challenges.

The literature review titled "Reinventing Human Resource Management in the Era of Artificial Intelligence" by Eti Jain, Taruna Chopra, and S.K Sharma examines the transformative impact of artificial intelligence (AI) on human resource management (HRM) practices. Through a comprehensive analysis of existing research, the review explores how AI technologies are reshaping traditional HRM functions such as recruitment, training, performance management, and employee engagement. Key findings highlight the potential of AI to streamline processes, improve decision-making, and enhance overall efficiency and effectiveness in HRM. Additionally, the review discusses challenges such as ethical considerations, algorithmic bias, and the need for organizational adaptation and employee upskilling to fully leverage AI in HRM. Overall, the paper provides valuable insights into the evolving role of AI in HRM practices and underscores the importance of strategic implementation and continuous adaptation to maximize its benefits in the era of AI.

should be numbered with Arabic numerals. Every table should have a caption. Headings should be placed above tables, left justified. Only horizontal lines should be used within a table, to distinguish the column headings from the body of the table, and immediately above and below the table. Tables must be embedded into the text and not supplied separately. Below is an example which the authors may find useful.

### **1.3 Research gap**

1. **Industry-Specific Analysis:** The research focuses on the broad influence of AI on HRM, with little regard to industry-specific details. Future study might examine the differences in AI deployment across industries and its impact on HRM practices.
2. **Employee Perspective:** Organizational viewpoints and the contribution of AI to improving HRM efficiency are the main subjects of most assessments. Future studies could examine the experience and views of AI-driven HRM practices from the perspective of employees, taking into account variables like job security, AI system confidence, and possible resistance to automation.
3. **Challenges and Barriers to AI Implementation in HRM:** While certain researches highlight obstacles to the effective integration of AI in HRM, like insufficient managerial support and inadequate technological knowledge, these issues have not been thoroughly examined. Future studies could pinpoint, examine, and provide solutions for certain issues and difficulties that businesses encounter when incorporating AI into HRM.
4. **Adaptability and Resilience in the Face of Technological Change:** While some studies address the possible effects of automation and artificial intelligence (AI) on job displacement and skill needs, little research has been done on how people and organizations can respond to these changes. Future studies should look into methods for helping employees become resilient, adaptable, and lifelong learners so they can successfully manage the changing nature of the workplace.

5. Employee Experience and Engagement: The majority of current research focuses on the effects on productivity. Little is known about the emotional impact of AI on employee engagement, motivation, and sense of belonging.

#### **1.4 Research objectives**

1. To identify the areas and extent to which industries have implemented AI technologies in their HR functions.
2. To examine employee perceptions and attitude towards AI in HR function and future of work.
3. To investigate the relationship between AI adoption in HR and various aspects of employee experiences.
4. To analyse the effectiveness of training on AI tools in HR.
5. To identify the challenges organizations, face in integrating AI into HR.
6. To assess the ethical considerations associated with AI adoption in HR.

#### **1.5 Research hypothesis**

##### ***Hypothesis 1: Gender and perception of AI introduction in HR***

**H<sub>0</sub>**: There is no significant difference in the perception of AI introduction in HR between male and female respondents.

**H<sub>1</sub>**: There is a significant difference in the perception of AI introduction in HR between male and female respondents.

##### ***Hypothesis 2: Age and familiarity with AI in HR***

**H<sub>0</sub>**: There is no significant relationship between respondents' age and their familiarity with artificial intelligence (AI) technology as it relates to HR.

**H<sub>1</sub>**: There is a significant relationship between respondents' age and their familiarity with artificial intelligence (AI) technology as it relates to HR.

##### ***Hypothesis 3: Training effectiveness and perception of integrating AI in their organization***

**H<sub>0</sub>**: There is no significant association between receiving training or guidance on how to use AI tools in your HR role and another variable.

**H<sub>1</sub>**: There is a significant association between receiving training or guidance on how to use AI tools in your HR role and another variable.

##### ***Hypothesis 4: Training received and impact of AI on organization efficiency***

**H<sub>0</sub>**: There is no significant difference in the mean perception scores of the impact of AI on organizational efficiency between the groups who received training and those who did not.

**H<sub>1</sub>**: There is a significant difference in the mean perception scores of the impact of AI on organizational efficiency between the groups who received training and those who did not provided.

#### **1.6 Research methodology**

The research design for this study on employee perspectives on integrating AI in HR encompasses both quantitative and qualitative data collection methods to provide a comprehensive understanding of employees' perceptions. Surveys are utilized as the primary data collection method, featuring a structured questionnaire consisting of closed and open-ended questions. This questionnaire gathers quantitative data on various aspects, including demographic information, familiarity with AI, perceptions of AI adoption in HR, training effectiveness, organizational efficiency, job responsibilities, career advancement opportunities, job security, bias in AI algorithms, resistance from employees, and concerns and challenges related to AI adoption in HR. The sample comprises HR employees from diverse organizations with voluntary participation and informed consent obtained from all participants. The structured survey questionnaire is distributed through various channels, such as WhatsApp and LinkedIn, ensuring confidentiality to encourage honest and accurate feedback from HR employees regarding their perceptions, attitudes, and experiences related to AI adoption in HR. A total of 173 responses were received.

Data analysis involves the use of statistical software, such as Excel, to perform inferential statistics (e.g., correlation, ANOVA, chi-square test) to examine relationships and differences between variables.

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## **2. Hypothesis testing**

##### ***Hypothesis 1: Gender and perception of AI introduction in HR***

**H<sub>0</sub>**: There is no significant difference in the perception of AI introduction in HR between male and female respondents.

**H<sub>1</sub>**: There is a significant difference in the perception of AI introduction in HR between male and female respondents.

OBSERVED VALUES TABLE				
Gender	Positive	Negative	Neutral	Total
Male	58	15	10	83
Female	43	7	40	90
<b>Total</b>	101	22	50	<b>173</b>

EXPECTED VALUES TABLE				
Gender	Positive	Negative	Neutral	Total
Male	48	11	24	83
Female	53	11	26	90
<b>Total</b>	101	22	50	<b>173</b>

CHISQ P-VALUE derived: 1.06972E-05

A p-value of 1.06972E-05 (scientific notation is 0.0000106972) indicates an extremely small probability. In practical terms, this means there is strong evidence to reject the null hypothesis that there is no significant association between gender and perceptions of AI in HR.

Therefore, there is a statistically significant association between gender and perceptions of AI in HR

### **Hypothesis 2: Age and familiarity with AI in HR**

**H<sub>0</sub>**: There is no significant relationship between respondents' age and their familiarity with artificial intelligence (AI) technology as it relates to HR.

**H<sub>1</sub>**: There is a significant relationship between respondents' age and their familiarity with artificial intelligence (AI) technology as it relates to HR.

	Age	Familiarity with AI in HR	AI in HR and Career Advancement	AI Adoption Impact on Job Security"
Age	1			
Familiarity with AI in HR	-0.034568849	1		
AI in HR and Career Advancement	-0.052318523	0.463764617	1	
AI Adoption Impact on Job Security"	-0.161071055	0.235395586	0.016431619	1

There is a negative correlation between age and familiarity with AI technology in HR, but very weak (-0.03). This suggests that older individuals may tend to be slightly less familiar with AI technology in HR, but the correlation is very weak.

Since the correlation coefficient is close to zero and the correlation is very weak, it indicates that there is no significant relationship between respondents' age and their familiarity with AI technology in HR. Therefore, the evidence from the analysis does not provide support for rejecting the null hypothesis.

The weak negative correlation observed suggests that there may be a relationship between age and familiarity with AI technology in HR, but it's not strong enough to support the alternative hypothesis.

Thus, the evidence does not provide sufficient grounds to accept the alternative hypothesis.

Based on the analysis, we fail to reject the null hypothesis, indicating that there is no significant relationship between respondents' age and their familiarity with AI technology in HR. While there may be a slight tendency for familiarity to decrease with age, this relationship is very weak.

### **Hypothesis 3: Training effectiveness and perception of integrating AI in their organization**

**H<sub>0</sub>**: There is no significant association between receiving training or guidance on how to use AI tools in your HR role and perception of integrating AI in their organization.

**H<sub>1</sub>**: There is a significant association between receiving training or guidance on how to use AI tools in your HR role and perception of integrating AI in their organization.

OBSERVED VALUES TABLE				
Training received?	Positive	Negative	Neutral	Total
Yes	83	22	10	115
No	8	34	16	58
<b>Total</b>	91	56	26	<b>173</b>

EXPECTED VALUES TABLE				
Training received?	Positive	Negative	Neutral	Total
Yes	60.49	37.23	17.28	115
No	30.51	18.77	8.72	58
<b>Total</b>	91	56	26	<b>173</b>

CHISQ P-VALUE derived: 3.58051E-12.

The p-value of 3.58051E-12 is a very small number expressed in scientific notation. It represents 3.58051 multiplied by 10 raised to the power of -12, which is an extremely small probability. A very small p-value like this indicates strong evidence against the null hypothesis.

It suggests that there is no observed association between the variables. Thus, rejecting the null hypothesis. It suggests a significant association between receiving training on AI tools in HR and feelings on introducing AI in HR processes.

**Hypothesis 4: Training received and impact of AI on organization efficiency**

**H<sub>0</sub>:** There is no significant difference in the mean perception scores of the impact of AI on organizational efficiency between the groups who received training and those who did not.

**H<sub>1</sub>:** There is a significant difference in the mean perception scores of the impact of AI on organizational efficiency between the groups who received training and those who did not.

Anova: Single Factor						
Alpha= 0.05						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Received training?	5	15	3	2.5		
Yes	5	115	23	1120		
No	5	58	11.6	192.3		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1006.533333	2	503.2666667	1.14831153	0.349692788	3.885293835
Within Groups	5259.2	12	438.2666667			
Total	6265.733333	14				

**F-value:** The F-value is a measure of the ratio of the variance between groups to the variance within groups. In this case, it's 1.1483.

**p-value:** The p-value associated with the F-test is 0.3497.

**Degrees of Freedom:** Between Groups (df) = 2, Within Groups (df) = 12, Total (df) = 14.

**Critical Value (F crit):** Threshold value used to determine the significance of the F-value. It depends on the significance level (usually 0.05) and the degrees of freedom for the between and within groups. In this case, it's 3.8853.

Since the p-value (0.3497) is greater than the significance level (typically 0.05), we fail to reject the null hypothesis. This means that there is not enough evidence to conclude that there is a significant difference in the mean perception scores of the impact of AI on organizational efficiency between the groups who received training and those who did not.

Since the F-value (1.1483) is less than the critical value (3.8853), it suggests that the variability between the groups is not large enough relative to the variability within the groups.

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### 3. Research findings and suggestions

#### *Findings:*

- Age shows a weak negative correlation with familiarity with AI technology in HR, indicating that age may have a slight influence on familiarity with AI technology, but the relationship is not significant.
- The analysis reveals a statistically significant association between gender and perceptions of AI in HR.
- The analysis demonstrates a significant association between receiving training on AI tools in HR and feelings about introducing AI in HR processes. Those who received training tend to have different perceptions compared to those who did not, suggesting the importance of education in shaping attitudes towards AI adoption.
- Perception of AI adoption in HR is positively correlated with belief in better career advancement opportunities and positively impacts future work.
- Concerns regarding loss of human touch, fairness and transparency, ethical development and bias, job displacement lack of understanding or trust in AI, and privacy and data security concerns from employees are identified as barriers to the successful implementation of AI in HR.
- Challenges organizations face in integrating AI into HR processes include resistance from employees, data privacy and security concerns, ethical use and fairness, employee training and adaptation, integration complexity, and job security and displacement concerns.

#### *Suggestions:*

- Develop and implement comprehensive training programs on AI tools and technologies for HR professionals across all industries. Ensure that these programs cover both technical aspects of AI as well as ethical considerations. This will help address any gaps in understanding and ensure that employees are equipped to leverage AI effectively in their HR roles.
- Provide ongoing education and upskilling opportunities to employees who have not received training on AI tools in HR. This will help bridge the gap in familiarity and ensure that all employees are equipped to effectively utilize AI in their roles.
- Foster a culture of transparency and open communication regarding the implementation of AI in HR processes. This includes providing clear information about the purpose and benefits of AI adoption, as well as addressing concerns and misconceptions.
- Establish channels for regular communication and feedback from employees regarding AI usage in HR. This will help in addressing any concerns or resistance and ensure that employees feel engaged and involved in the process.
- Implement measures to detect and mitigate biases in AI algorithms used in HR processes. This may involve regular audits of AI systems, as well as the development of bias detection algorithms.
- Recognize that the adoption of AI in HR varies across industries, and tailor implementation strategies accordingly. For industries with lower adoption rates, identify specific barriers and challenges and develop targeted solutions to address them.
- Share best practices and success stories from industries with higher adoption rates, such as technology and finance, to inspire and guide organizations in other sectors.

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### 4. Conclusion

The research indicates that AI adoption in HR functions varies across different areas, with recruitment and selection processes being the most integrated. However, there is still room for improvement in areas such as employee engagement and compensation management. Organizations should prioritize the integration of AI technologies in these areas to enhance HR effectiveness and employee satisfaction.

Employees' perceptions of AI in HR are influenced by factors such as familiarity with HR practices and AI technology. The study identifies a significant positive correlation between familiarity with AI technology in HR and perception of AI introduction in HR functions. The study finds a correlation between training received and positive feelings about AI adoption, indicating a need for training to influence perceptions positively, indicating that training programs can influence employees' readiness and acceptance of AI technologies in HR. Organizations should invest in comprehensive training initiatives to ensure employees are adequately prepared for AI integration in HR processes. The research shows that employees generally perceive AI adoption in HR to have a somewhat negative impact on the future of work.

Employees who perceive AI as enhancing organizational efficiency are more likely to believe that AI technologies offer better career prospects. Organizations can leverage this positive perception to foster employee buy-in and support for AI initiatives by highlighting the potential benefits of AI

adoption on career advancement. The study identifies resistance from employees towards AI adoption in HR processes. There is a moderate positive correlation between the perception of the introduction of AI in HR and employee resistance. This highlights a potential barrier to AI implementation in HR. Addressing this resistance and understanding its underlying causes could help overcome challenges in AI adoption in HR.

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## 5. Scope for future research

- A longitudinal study to track the evolution of AI adoption in HR over time. This research could involve periodic surveys or interviews with organizations to assess changes in AI adoption rates, perceptions, and impacts on employees' work experiences.
- Investigate the impact of AI adoption in HR on employee well-being, job satisfaction, and work-life balance. Research could examine how AI-driven HR practices influence stress levels, job autonomy, and the quality of work relationships.
- Investigate the role of employee training and upskilling programs in preparing individuals for AI-enabled HR practices. Research could assess the effectiveness of different training approaches, such as experiential learning, online courses, or workshops, in building employees' AI literacy and confidence. Understanding the training needs and preferences of employees is essential for successful AI implementation.
- A research gap in exploring industry-specific nuances, which could be addressed in future studies.
- A research gap in exploring emotional impacts and employee engagement, which could be addressed in future studies to provide a more comprehensive understanding of the subject.

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