



Awareness Study on Use of Artificial Intelligence In Human Resource Management With Special Reference To Garment Sector In Madurai

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ABSTRACT

Awareness study on use of Artificial Intelligence (AI) in Human Resource Management (HRM) within the garment sector of Madurai is crucial for stakeholders to comprehend the transformative potentials associated with AI adoption. The sample size of the study is 152. Descriptive research method and Snowball sampling techniques were used for the study. Primary data and secondary data have been used in the study. Simple Percentage analysis, chi square analysis and correlation have been applied in this study to reach the finding of the study. It is suggested that the business has to acknowledge that putting in and maintaining AI technologies will cost a sizable sum of money. The advantages include less bias in hiring and better decision-making. But protecting data security and privacy must always come first when using AI in HR-related tasks. Thus, in order to fully utilize AI's potential to revolutionize HRM practices and propel organizational success in the digital age, organizations must place a high priority on adaptability, continuous learning, and responsible AI governance.

KEYWORDS: Awareness, Artificial Intelligence, Human Resource Management, HR Practices, HR Functions.

I. INTRODUCTION

The goal of the study project is to carefully examine how artificial intelligence (AI) is being incorporated into the field of Human Resource (HR) functions and to then analyze its wide-ranging implications on many aspects of HR

Operations. A thorough examination of the advantages and challenges of integrating AI in HR was conducted as well as a thorough evaluation

of its overarching impact and prospective role, this study strives to offer invaluable perspectives into the revolutionary consequences of AI on the landscape of human resources. Through this study, a deeper understanding will be gained regarding how AI is reshaping recruitment, onboarding, performance evaluation, and other HR processes, contributing to informed decision-making and fostering a proactive approach towards the evolving landscape of HR practices.

This study looks at how AI is being incorporated into HR operations and explores the ramifications that will follow. By examining the advantages of AI adoption, such as bias reduction and improved workforce planning, as well as the challenges it poses, including privacy concerns and potential glitches, the research aims to offer a comprehensive perceptive of AI's function in HR. Additionally, the study assesses the overall impact of AI on HR operations, considering factors like efficiency enhancement and employee perception, while also projecting the future of AI in human resources, offering insights into its potential centrality in reshaping practices and the evolving dynamics between technology and HR management.

Over the recent years, the intersection of AI and HR has sparked a significant transformation in the realm of organizational management and participation by employees. The infusion of AI technologies into HR operations introduces a dynamic juncture where innovation converges with challenges, demanding organizations to adeptly navigate this evolving landscape. By meticulously dissecting the advantages, challenges, overall influence, and future trajectory of AI in HR, this research endeavors to provide not only a panoramic view of the evolving HR landscape but also a



nuanced understanding of the potential disruptions and benefits that AI introduces. In this era of rapid technological evolution, the conclusions drawn from this research offer valuable perspectives into the intricate interaction between AI and the functions of HR, empowering organizations to make informed decisions and strategies as they embrace the transformative capabilities of AI while addressing the nuanced problems it brings forth.

INDUSTRY PROFILE

Raising awareness about AI in HRM within the Garment sector of Madurai is essential to empower stakeholders with the knowledge needed to harness AI's potential effectively. This initiative entails educating about AI's benefits in streamlining recruitment, enhancing workforce management, and fostering employee engagement, while also addressing concerns such as bias mitigation and skill development. By fostering understanding and collaboration, this awareness drive aims to facilitate responsible AI integration, ensuring the sector's sustainable growth and competitiveness.

OBJECTIVES OF THE STUDY

- To analyse the awareness level of AI usage in HR process
- To evaluate the awareness on implementation of AI in HR practices
- To analyse the awareness on effectiveness of AI in HR process
- To evaluate the perception on advantages and challenges of AI in HR process.

II. REVIEW OF LITERATURE

Murugesan U, Subramanian P, Srivastav S, Dwivedi A (2023) conducted a study on “The ethical use of artificial intelligence in human resource management: a decision-making framework”. The study utilized a descriptive research design that follows a cross sectional approach. A structured questionnaire was used to collect the data to support the research. Numerous adjustments are necessary for Industry 4.0 deployment, including the HR function. 271 HR professionals from the fields of manufacturing, information technology (IT), and administration were chosen to take part in this evaluation, Furthermore, using a quantitative approach, it could be investigated how AI based HR decisions have impacted company success and turnover in numerical terms.

Edwards J.S, Uren V (2023) conducted a study on “Technology readiness and the organizational

journey towards AI adoption: An empirical study”. Artificial intelligence (AI) is thought to have the potential to have a profound impact on the economy and society. To further understand the adoption process, a cross-sectional qualitative investigation sample was undertaken, involving a targeted selection of AI specialists spanning research, development, and business sectors. The outcomes of the study further indicate the significance of fostering connections between the realms of business and technology, particularly for organizations driven by innovation and creativity.

A.K, Malik N (2021). Conducted a study on “Impact of Artificial Intelligence on Employees working in Industry 4.0 Led Organizations” in Germany. This study makes an effort to gain a realistic understanding of the experiences, both good and bad, that employees have as a result of the adoption of AI and the resulting technostress. The research involved 32 experts with an average of 76 decades of work experience, spanning 9 distinct industries. The findings underscore the considerable adverse repercussions of AI acceptance, encompassing concerns about information security, data privacy, substantial shifts catalyzed by digital transformations, and escalating employment risks leading to employee insecurity.

Tambe P., Cappelli P., Yakubovich V. (2019) Conducted a study on “Artificial intelligence in Human Resource Management: Challenges and a path forward” in California Management Review. This article acknowledges several challenges in this context, such as the intricate nature of HR phenomena developed using data-driven algorithms. This depicts a conventional AI Lifecycle: Operations, Data Generation, Machine learning and Decision-making Building upon three interrelated principles—causal reasoning, randomization and experimentation, and active employee involvement—the article proposes pragmatic resolutions to these obstacles. These solutions are envisaged to be economically viable and socially acceptable, fostering the application of data science in effective people management.

III. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In this we not only talk of research methods but also consider the logic behind the methods or techniques. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to research purpose with economy in



procedure. In this study descriptive type of research design has been used to analyze.

SAMPLING DESIGN

Sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate characteristics of the whole population. This study uses Snowball sampling. Snowball sampling is a technique, in which existing subjects provide referrals to recruit samples required for a Research study.

SAMPLING POPULATION

Number of elements in the population is the size of the population. The data is collected from the 152 HR Professionals who are working in the Garment sector, Madurai. So, sample size is 152.

Primary data:

Primary data are those which are collected a fresh and for the first time and thus happen to the original in character.

Secondary data:

Secondary data are those which have been already collected and analyzed by some earlier agency for its own use.

DATA

ANALYSIS AND INTERPRETATION

The results of the finding of the data analyzed from the questionnaire. The data was analyzed on the basis of research objective and questionnaire items using statistical tools, to generate frequency Percentage analysis, Chi square analysis,

Correlation analysis.

PERCENTAGE ANALYSIS

Percentage refers to a special kind of ratio. Percentage is used in making comparison between two or more series of data. Percentage can also use to compare the relationship.

$$\frac{\text{No. of respondents}}{\text{Total no. of respondents}} \times 100$$

CHI-SQUARE TEST

Karl Pearson developed a test for testing the significance of discrepancy between experimental values and the theoretical values are obtained under some theory of hypothesis.

$$\chi^2 = \Sigma(O-E)^2/E$$

CORRELATION ANALYSIS

Correlation analysis in research is a statistical method used to measure the strength of the linear relationship between two variables and compute their association.

$$r = \frac{n \Sigma X Y - \Sigma X \Sigma Y}{\sqrt{(n \Sigma X^2 - (\Sigma X)^2) \cdot (n \Sigma Y^2 - (\Sigma Y)^2)}}$$

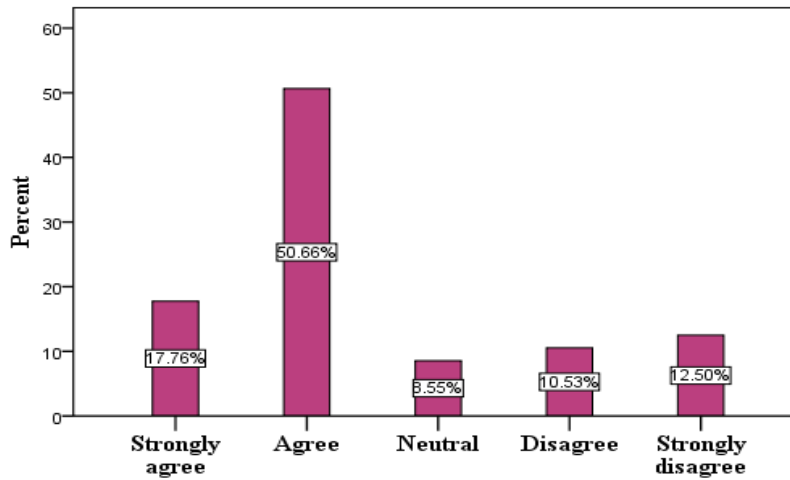
ANALYSIS AND INTERPRETATION

PERCENTAGE ANALYSIS

AWARENESS ON THE UTILIZATION OF AI TECHNOLOGIES WITHIN HR PROCESSES

Particulars	No. of the respondents	Percent
Strongly agree	27	17.8%
Agree	77	50.7%
Neutral	13	8.6%
Disagree	16	10.5%
Strongly disagree	19	12.5%
Total	152	100%

Source: Primary data



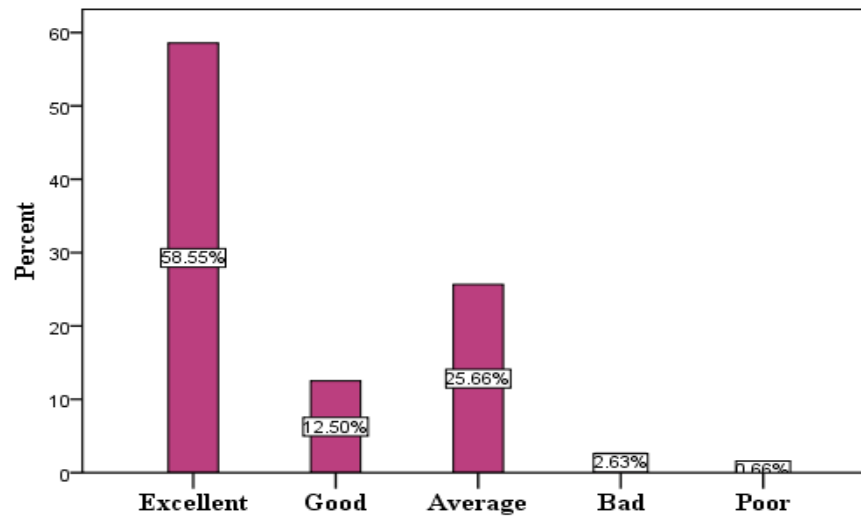
INTERPRETATION

The above table shows that 17.8% of the respondents are strongly agree, 50.7% of the respondents are agree, 8.6% of the respondents are neutral, 10.5% of the respondents are disagree and 12.5% of the respondents are strongly disagree towards the awareness of the utilization of AI technologies within HR processes. Thus, the majority of the respondents have agreed that they have awareness about the utilization of AI technologies within HR processes.

AI ENHANCES EMPLOYEE ENGAGEMENT THROUGH PERSONALIZED RECOMMENDATIONS FOR CAREER GROWTH

Particulars	No. of the respondents	Percent
Excellent	89	58.6%
Good	19	12.5%
Average	39	25.7%
Bad	4	2.6%
Poor	1	0.7%
Total	152	100%

Source: Primary data



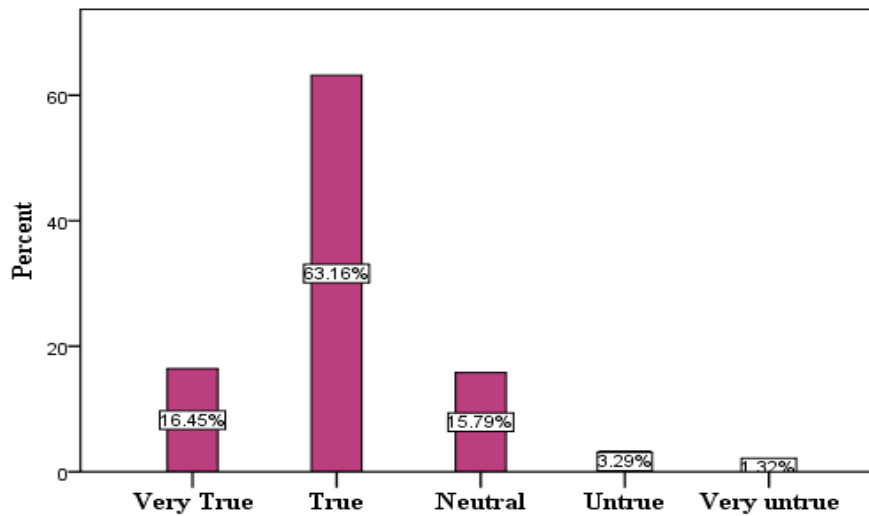
INTERPRETATION

The above table shows that 58.6% of the respondents said that excellent, 12.5% of the respondents said that good, 25.7% of the respondents said that average, 2.6% of the respondents said that bad and 0.7% of the respondents said that poor towards the AI enhances employee engagement through personalized recommendations for career growth. Thus, the majority of the respondents said that excellent towards the AI enhances employee engagement through personalized recommendations for career growth.

AI HAS CONTRIBUTED TO A MORE DATA-DRIVEN AND INFORMED DECISION-MAKING IN HR

Particulars	No. of the respondents	Percent
Very True	25	16.4%
True	96	63.2%
Neutral	24	15.8%
Untrue	5	3.3%
Very untrue	2	1.3%
Total	152	100%

Source: Primary data



INTERPRETATION

The above table shows that 16.4% of the respondents said that very true, 63.2% of the respondents said that true, 15.8% of the respondents said that neutral, 3.3% of the respondents said that untrue and 1.3% of the respondents said that very untrue as the AI has contributed to a more data-driven and informed decision-making in HR. Thus, the majority of the respondents said that true as the AI has contributed to a more data-driven and informed decision-making in HR.

CHI SQUARE ANALYSIS

RELATION BETWEEN THE AGE OF THE RESPONDENTS AND AWARENESS OF AI IN HR PROCESS

Null hypothesis (H₀):

There is no significance difference between the age of the respondents and awareness of AI usage in HR process.

Alternative hypothesis (H₁):

There is significance difference between the age of the respondents and awareness of AI usage in HR process.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent



Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE OF THE RESPONDENTS * AWARENESS OF AI IN HR PROCESS	152	100%	0	100%	152	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	97.703 ^a	30	.000
Likelihood Ratio	106.145	30	.000
Linear-by-Linear Association	47.983	1	.000
No of Valid Cases	152		

36 cells (81.8%) have expected count less than 5. The minimum expected count is .33.

INTERPRETATION

As per the above table, it is inferred that the P value is 0.000; it is not significant to 5% (0.05) significant level. The minimum expected count is 0.33. Thus, alternative hypothesis is accepted and it is found that there is some significant relationship between the age of the respondents and awareness of AI in HR process.



CORRELATION ANALYSIS

RELATIONSHIP BETWEEN THE EDUCATIONAL QUALIFICATION OF THE RESPONDENTS AND PERCEPTION ON CHALLENGES OF AI IN HUMAN RESOURCES

Correlations			
		EDUCATIONAL QUALIFICATION OF THE RESPONDENTS	PERCEPTION ON CHALLENGES OF AI IN HUMAN RESOURCES
EDUCATIONAL QUALIFICATION OF THE RESPONDENTS	Pearson Correlation	1	-.182*
	Sig. (2-tailed)		.025
	N	152	152
PERCEPTION ON CHALLENGES OF AI IN HUMAN RESOURCES	Pearson Correlation	-.182*	1
	Sig. (2-tailed)	.025	
	N	152	152
* Correlation is significant at the 0.05 level (2-tailed).			

INTERPRETATION

The Above table indicates that out of 70 respondents, co-efficient of correlation between the educational qualification of the respondents and perception on challenges of AI in human resources is -0.182. It is below 1. So, there is negative relationship between the educational qualification of the respondents and perception on challenges of AI in human resources.

IV. FINDINGS

- Majority of the respondents agree that they are aware of the utilization of AI technologies within our HR processes.
- Majority of the respondents given excellent rating towards the AI enhances employee engagement through personalized recommendations for career growth.
- Majority of the respondents given true as their option, AI has contributed to a more data-driven and informed decision-making in HR.
- There is significant relationship between the age of the respondents and awareness of AI in HR process.

- There is a negative relationship between the educational qualification of the respondents and perception on challenges of AI in human resources.

V. SUGGESTIONS

- Predictive analysis provided by AI must be used by the business to enhance resource allocation and personnel planning.
- AI must be implemented by the business to improve the HR division's general effectiveness.
- AI integration is required by the business to raise the calibre of hiring procedures.



- AI must be used by the business to support a more data-driven and knowledgeable HR decision-making process.
- Companies has to acknowledge that putting in and maintaining AI technologies will cost a sizable sum of money.
- Companies need to be aware that the suggestions made by AI could not always accurately reflect the subtleties of employee preferences.

VI. CONCLUSION

From the thorough examination and assessment of artificial intelligence (AI) use in human resource management (HRM) is that AI offers substantial potential for improving a number of HR-related functions. The report emphasizes how critical it is to educate staff members about AI's integration into HR procedures and give them the necessary training to fully realize the technology's potential. Furthermore, even while AI-driven solutions make hiring and onboarding easier, there may be ethical and privacy issues that need to be addressed when using them. In spite of obstacles like technological hiccups and monetary outlays, artificial intelligence in human resource management yields greater advantages than disadvantages. These advantages include less bias in hiring, enhanced workforce planning, and better decision-making. But protecting data security and privacy must always come first when using AI in

HR-related tasks. Thus, in order to fully utilize AI's potential to revolutionize HRM practices and propel organizational success in the digital age, organizations must place a high priority on adaptability, continuous learning, and responsible AI governance.

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