

EFFECTIVENESS OF ARTIFICIAL INTELLIGENCE IN HR PRACTICES ON EMPLOYEE ENGAGEMENT WITH REFERENCE TO IT INDUSTRIES IN CHENNAI

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Abstract *This study aims to examine the impact of artificial intelligence-based HRM strategies on employee engagement in the IT sector. The Industrial Revolution (IR) is significantly influenced by artificial intelligence (AI). In areas where there is enough data and where that data can be utilized to improve the effectiveness of human resource management, AI has the potential to transform HR practices. It will demonstrate the link between independent aspects training and development, performance assessment and job satisfaction using artificial intelligence and employee engagement. The authors also examine the current academic framework for AI adoption in HRM as well as applications of AI in HRM. The results provide a thorough examination of the connection between employee engagement and AIHRM, the identification of knowledge gaps in this area, and the effects of AI on HR practices. The research suggests as AI-powered tools and apps, to investigate the potential impact of AI performance on workers' job engagement, service, and results. When it comes to tracking and analyzing employee engagement, the majority of businesses still use traditional survey methods to assess engagement on an annual or longer basis. The dimensions and effects of engagement have become abundantly clear to us thanks to these practices, but it's time to reconsider how we measure it and, more importantly, how we can use the same digital tools to increase worker productivity, retention, and satisfaction. In order to address this contemporary trend of how technology advancements affect engagement measurement as well as the use of human resource management (HRM) techniques to increase engagement, we suggest a number of study subjects.*

Keywords *Artificial Intelligence, Human Resources Management, HR Practices, Employee Engagement, Employee Retention, Machine Languages*

INTRODUCTION

By 2022, the value of businesses produced by AI will reach \$3.9 trillion, predicts Gartner (Gartner, 2018). Due to the vast amount of underutilized data that HR possesses, it may take the lead in technical advancement and create commercial value with AI-powered solutions. Artificial intelligence requires vast amounts of data in order to work properly, which calls for sufficient management and storage. Businesses would require more staff to operate and maintain the complex software. By using AI technologies to assess the data and assign tasks to employees, HR managers may effectively utilize AI in their operations. In HRM, technology has been utilized to improve employee engagement, provide customized vocational training and evaluate diverse HR data in order to make business-critical choices (Dorel & Aleksandra, 2011).

Artificial intelligence (AI) has been progressively incorporated into company management decision-making, taking on and assisting managers in expediting

their everyday, laborious, and repetitive tasks. It provides powerful database and analytical support, allowing managers to get out of mechanical work and engage in more valuable work (Partridge & Hussain, 1992). The Accenture Strategic Report states that the influence and utility of intelligent technologies may alter the manager's job contents in the areas of coordination and governance, employee and community relations, problem solving and teamwork, strategy, and innovation. Managers who do repetitive and laborious tasks on a daily basis might benefit from the assistance of artificial intelligence.

Positive attitudes toward the business and the organization's values are the hallmarks of employee engagement. Management may identify intangibles like employee engagement levels and get insights into what influences them and how to raise them by utilizing AI-based tools, software, and technology. Employers may greatly benefit from the adoption of AI-based software by using it to forecast employees' attitudes and actions through predictive indications, in addition to determining each employee's

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degree of engagement. As a result, the business may actively keep important personnel. Sari, Min, Purwoko, Furinto and Tamara (2020). Deep learning, which mimics adaptive human decision-making, has evolved into a common practice in some data-rich environments through the use of neural networks (Raub, 2018). However, not many companies have advanced to the big data stage of personnel management, where the potential has been clearly expressed in sufficient judgments.

Maintaining employee engagement is essential to an organization's survival. An tailored and personalized approach to employees is made possible by the communicative and Interactional aspects of AI applications in HRM. AI-based solutions are becoming more and more prevalent in many areas of HR business operations, which improves employee experiences and work satisfaction. Nonetheless, the influence of AI-mediated HRM practices is still being investigated in this exploratory study arena (Dutta, Mishra & Tyagi, 2023). Moreover, unwillingness is also observed for the adaptation and investment of AI in businesses who are functioning businesses globally. Employee engagement (EE) has several beneficial effects that can benefit not only the employee and his or her team but also the organization as a whole and the company's bottom line. Organizations are eager to embrace artificial intelligence (AI) if it can be utilized as a tool to support equitable employment (Saxena & Mishra, 2023).

Artificial intelligence: the way ahead for employee engagement in corporate India. Global Knowledge, Memory and Communication. Since companies may use their workers' abilities and talents to gain a sustained competitive advantage, employee engagement is a crucial component of human resources (Park & Choi, 2019). The effectiveness of earlier employee engagement strategies has decreased due to shifting HR practices and workforce generation. Additionally, during the pandemic, some firms primarily employed digital or AI technologies to guarantee the seamless operation of various operations (Chanana & Sangeeta, 2020). Many academics and researchers have already examined employee engagement in order to manage and retain talent (Guest, 2014; Shuck & Reio Jr., 2014; Pugh & Dietz, 2008; Meyer & Gegne, 2008; Bhuvanaiah & Raya, 2014).

"The ability to engage employees, to make them work with our business, is going to be one of greatest organizational battles in the coming 10 years," according to Mike Johnson, who also made this statement in his book, *The New Rules of Engagement* (Johnson, 2004). Therefore, this study has tried to identify the role of AI innovation in engaging employees by reviewing the literature.

LITERATURE REVIEW

Employee Engagement

Employee engagement is defined as a level of commitment and involvement of employees in their organizational tasks and duties (Anitha, 2014). When employees are engaged in organizational activities then, they focus on achieving organizational goals and motives. With their positive attitude they also motivate their colleagues and maintain a positive work culture in the organization. Engaged and motivated employees work beyond the defined rules and time schedules to complete their duties and goals. Employee engagement is a strategic tool for organizations to leverage upon the talent of their employees in order to attain sustainable competitive advantage (Baumruk, 2004).

AI has become an essential tool for promoting employee engagement as it helps businesses to identify the unique needs of each employee and provide them with tailored support (Mellam, Rao, & Mellam, 2015). Organizational productivity is closely tied to individual employee performance, which in turn is linked to employee engagement, a critical factor for remaining competitive in the market (Rao, Chitranshi & Punjabi, 2020). Traditional annual surveys have been the primary method for HR to gauge engagement levels, but the emergence of AI tools enables real-time individual data and insights.

Artificial Intelligence is being utilized more and more in human resource management, particularly in the area of employee engagement, which is crucial to workforce management. Thanks to developments in artificial intelligence (AI) and machine learning, companies may now leverage new technologies like sentiment analysis, natural language processing, and real-time performance monitoring to increase employee engagement.

AI combined with employee engagement can result in more output, better communication, and a team-oriented workplace (Mittal, Jora, Sodhi & Saxena, 2023, March). Artificial intelligence offers significant promise in enhancing employee engagement by providing 24/7 assistance and support for both off-site and on-site employees, real-time performance measurement, better learning and development activities, and AI-driven solutions for conflict resolution (Rao, Chitranshi & Punjabi, 2020).

AI technologies can improve information accuracy and automate tedious processes, resulting in increased employee engagement (Mahmoud, Shehnaz Tehseen & Leonora Fuxman, 2020). to create a better employee experience, AI and human intelligence are frequently integrated, resulting in

the automation of repetitive HR tasks and process redesign. Instead of reducing human interaction, digital automation AI provides HR staff with more time to connect with employees, managers, and candidates to better meet their needs (Zel & Kongar, 2020, September).

Employee engagement has become an increasingly important topic in the realm of human resources management. Engaged employees are more productive, motivated, and committed to their organization, resulting in higher levels of employee retention, job satisfaction, and overall organizational performance (Markos & Sridevi, 2020). In recent years, artificial intelligence (AI) has emerged as a powerful tool for enhancing Employee engagement. Providing individualized experiences for individual employees is one of the key ways AI may boost employee engagement.

AI solutions can be used to analyze employee data and make personalized recommendations for training, development, and career promotion. This not only serves to increase individual employees' skills and knowledge, but it also shows them that their firm is invested in their success and growth. AI can also help improve staff communication and collaboration. Chatbots, for example, can be used to give employees immediate access to HR resources such as benefit information or answers to frequently asked queries. This not only saves time but also improves employee satisfaction by providing them with the information they require to succeed (Microsoft, 2019). Another way that AI might boost employee engagement is by minimising hiring prejudice. Conventional recruiting processes are frequently influenced by unconscious prejudices, which can result in the selection of less diverse and less qualified candidates for employment.

In contrast, AI techniques can be used to analyse resumes, job descriptions, and interview transcripts in order to discover potential biases and make more objective hiring decisions. Overall, the use of AI in employee engagement is quickly expanding, with considerable potential benefits. AI can help firms enhance employee engagement, retention, and overall performance by creating tailored experiences, improving communication and cooperation, and minimizing prejudice in the recruiting process. But, like with any new technology, there are potential hurdles and hazards to using AI in the workplace, and more research is needed to properly understand its impact on employee engagement.

PROBLEM STATEMENT

Employee engagement is most serious issue facing Indian IT sector due to shortage of skilled labor, economic growth and employee turnover. It is not only important to have the best and the most talented employees but it is equally necessary to be able to retain and engage them for long period of

time. There are many factors which affects the engaging of employee. Today's highly mobile population is not limited to any one career, and the global economic expansion of the past several decades has created more options. Any organization's lifeblood is its human resources. Human resources are still needed to operate the technology, even if the majority of firms these days are determined to be technology driven. They are the most vital and dynamic resources of any organization. This study reveals that Artificial Intelligence in HR Practices on Employee Engagement with reference to IT Industries in Chennai.

RESEARCH OBJECTIVE

- To study the impact of AI training on employee engagement in the IT industry.
- To examine the demographic variables that contributes to employee engagement.
- To study the impact of AI performance appraisal on employee engagement in the IT industry.
- To study the impact of the Job satisfaction on employee engagement in the IT industry.
- To study factors affecting AI in HR Practices through employee engagement in the IT industry.

RESEARCH DESIGN

Primary as well as Secondary data were used for this research. Online Questionnaires were constructed and gathered from employees as the Primary data. Secondary data was collected from published Articles, Books, Journals, Internet resources etc. Likert's five-point scales were applied with scales covering as "Strongly agree, Agree, Neutral, Disagree, and Strongly Disagree". Convenient Sampling method was used to collect the sample and the sample size was 117. Questionnaires were distributed among 160 respondents of which finally 117 were taken for this research after deleting or modifying of data. It has been circulated through Google forms and the data was segregated. SPSS-25 were used for this research. Cronbach's alpha, Chi square test, Regression, Pearson's correlation were used.

RELIABILITY OF THE SURVEY INSTRUMENT

Cronbach's alpha, the dependability coefficient indicator, indicates how strongly the variables are optimistically linked with one another (Saluja & Sharma, 2019). The Cronbach's alpha came out to be 0.963, which is considered a good indication of reliability as it is more than 0.7.

Table 1

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.900	.963	29

DATA ANALYSIS AND INTERPRETATION

Objective 1: To study the impact of AI training on employee engagement in the IT industry. Objective 2: To study the impact of AI performance appraisal on employee engagement in the IT industry.

Objective 3: To study the impact of the Job satisfaction on employee engagement in the IT industry.

Objective 4: To study factors affecting AI in HR Practices through employee engagement in the IT industry.

Test of Hypothesis

H_{01} : AI training has no positive effect on Employee engagement.

H_{a1} : AI training has a positive effect on Employee engagement.

H_{02} : AI Performance Appraisal does not affect Employee engagement.

H_{a2} : AI Performance Appraisal has an effect on Employee engagement.

H_{03} : Job satisfaction has no positive effect on Employee engagement.

H_{a3} : Job satisfaction has a positive effect on Employee engagement.

Table 2

Correlations				
	AIT	AIPA	JS	EG
AIT	1	.710**	.814**	.691**
AIPA		1	.794**	.803**
JS			1	.767**
EG				1

** . Correlation is significant at the 0.01 level (2-tailed).

Inference: The correlation analysis illustrates the link between the two variables as well as the interaction between one and the other. Its value is always between -1 (Strongly

negative relationship) and +1 (Strongly positive relationship) (Strongly optimistic relationship). If the value of correlation is "0," it means there is no relationship between two variables. We may determine from the table above that all of the variables are positively connected with one another. The above table indicates that AI training has a strong positive relationship with employee engagement. Pearson correlation $r = 0.691$ significant at $p < 0.01$. There is moderate

Positive effect of AI appraisal on the Employee engagement. Pearson correlation ($r = 0.803$, $p < 0.05$). There is strong positive relationship between the Job satisfaction and Employee engagement. Pearson correlation ($r = 0.767$, $p < 0.05$).

Regression

Table 3

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.833 ^a	.693	.685	1.699	2.384

a. Predictors: (Constant), JS, AIPA, AIT

b. Dependent Variable: EG

Inference: R-square indicates how data are scattered around the fitted regression model. It measures the percentage of relation between the independent and dependent variable inclusively. The R square value in this study is 69%.

ANOVA^a

Table 4

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	738.417	3	246.139	85.226	.000 ^b
	Residual	326.353	113	2.888		
	Total	1064.769	116			

a. Dependent Variable: EG

b. Predictors: (Constant), JS, AIPA, AIT

Inference: The table shows the results of ANOVA. The hypothesis is further tested by ANOVA table. Since the computed p-value 0.000 is lower than the acceptable significance value of 0.01, it is concluded that AI Training, AI Performance appraisal has a significant influence on the employee engagement of the employees. The alternative hypothesis is thus accepted and the null hypothesis is rejected.

**Chi-Square Test
AIT * Gender**

Table 5

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.718 ^a	1	.010
Likelihood Ratio	7.032	1	.008
N of Valid Cases	117		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.53

Inference: Under “Asymptotic Significance (2-sided),” the p-value (.010) is shown in the same row. If this number is on par with or below the specified alpha threshold (typically.05), the result is noteworthy. Therefore, we would reject the null hypothesis, which states that the two variables are independent of one another, in this instance since the p-value is less than the conventional alpha value. This tells us that there is statistically significant association between Gender and AI Training; that is, both Males and Females equally prefer AI training to attain employee engagement.

AIPA * Gender

Table 6

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.171 ^a	2	.000
Likelihood Ratio	3.217	2	.000
N of Valid Cases	117		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.76.

Inference: Under “Asymptotic Significance (2-sided),” the p-value (.010) is shown in the same row. If this number is on par with or below the specified alpha threshold (typically.05), the result is noteworthy. Therefore, we would reject the null hypothesis, which states that the two variables are independent of one another, in this instance since the p-value is less than the conventional alpha value. This tells us that there is statistically significant association between Gender and AI Performance appraisal; that is, both Males and Females equally prefer AI performance appraisal to attain employee engagement.

JS * Gender

Table 7

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.635 ^a	1	.010
Likelihood Ratio	3.904	1	.008
N of Valid Cases	117		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.56

Inference: Under “Asymptotic Significance (2-sided),” the p-value (.010) is shown in the same row. If this number is on par with or below the specified alpha threshold (typically.05), the result is noteworthy. Therefore, we would reject the null hypothesis, which states that the two variables are independent of one another, in this instance since the p-value is less than the conventional alpha value. This tells us that there is statistically significant association between Gender and Job satisfaction; that is, both Males and Females equally prefer job satisfaction to attain employee engagement.

EG * Gender

Table 8

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.718 ^a	1	.010
Likelihood Ratio	7.032	1	.008
N of Valid Cases	117		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.53

Inference: Under “Asymptotic Significance (2-sided),” the p-value (.010) is shown in the same row. If this number is on par with or below the specified alpha threshold (typically.05), the result is Noteworthy. Therefore, we would reject the null hypothesis, which states that the two variables are independent of one another, in this instance since the p-value is less than the conventional alpha value. This tells us that there is statistically significant association between Gender and employee engagement.

RECOMMENDATION

Businesses should use AI in their training and development initiatives to maximize the learning opportunities for their workforce. When teaching using AI technologies instead

of traditional techniques, training can result in higher productivity, engagement, and information retention. The results show that the HRM Practices through AI is able to generate and impact employee Engagement within the IT industry. This study contributes to HRM practices through AI in the IT industry, which is proving to be the one of the best strategies in resolving labor turnover. Employment security is important for providing benefits and keeping a positive reputation and brand image to the public. Through this AI for HR Practices it provide job satisfaction to the employees it reduced the labor turnover it maintain employee engagement. The engagement of employees plays a very important role in the IT Industry. When the Employees gets the AI training, they are involved more in other activities related to their work. It helps to improve the knowledge of employees, get the appraisal, and increase the job satisfaction level. Scope of the study can explore more about the pattern of AI training, AI Performance appraisal leads to employee engagement.

CONCLUSION

The above studies emphasize the role of AI Influence HR practices in Employee Engagement. It also shows the optimistic and significant relation between AI training, AI performance appraisal and employee engagement. Regression analysis also depicts the same relation. The Factors affecting employee engagement depicts the significant factor loading. AI training, AI Appraisal, and Job satisfaction are the factors that affect Employee Engagement. HRM Practices are the vital backbone in every Organization. To retain skilled and qualified employees, good HRM practices through AI must be applied across the organizational employee retention can be improved. Coaching and mentoring are seen as the most real methods of AI training facilities. By investing in the appropriate AI training programs, a company will gain benefits such as increased productivity, reduced employee turnover, and decreased need for constant supervision.

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