

# ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON HUMAN RESOURCES PRACTICES ACROSS THE SELECTED IT AND ITES COMPANIES HR GENERALIST IN BANGALORE

<sup>1</sup>C.K. MUTHUKUMARAN, <sup>2</sup>I ANAND

<sup>1</sup>Professor, Alagappa Institute of Management, Alagappa University, Karaikudi, Tamil Nadu  
Email: [muthukumarack@alagappauniversity.ac.in](mailto:muthukumarack@alagappauniversity.ac.in)

<sup>2</sup>Research Scholar, Alagappa Institute of Management, Alagappa University, Karaikudi, Tamil Nadu.  
Email: [anandwe@yahoo.com](mailto:anandwe@yahoo.com)

## Abstract

A fast changing economic environment, typified by phenomena such as globalisation and market deregulation, shifting customer and investor needs, and ever-increasing product-market competition, has become the standard for the majority of firms. To remain competitive, they must constantly improve their performance by lowering costs, developing products and processes, and increasing quality, productivity, and speed to market. It is not excluded for the human resources industry. The term "artificial intelligence" was coined in 1950. And it has been a contentious issue in the majority of reputable management journals since 1964. Since the 1960's, it was asserting that AI would eventually supplant human resources. However, we could see AI playing a role in human resource procedures. It is a descriptive research method. 275 samples were taken using convenience sampling techniques. The sample consists of a human resources specialist who works in IT and ITES organisations in Bangalore. The results reveal that the majority of female respondents believe that the entrance of AI will have a significant impact on practically all aspects, but particularly on staffing, as measured by the mean score of 1.70.5. Male respondents likewise believe that staffing is one of the most crucial criteria, based on a mean score of 1.80.4. The highest impact component is performance evaluation, which is 1.60.5 in the opinion of male respondents. As a result, strategic attention must be paid to staffing characteristics in order to increase both male and female human resource satisfaction levels.

**Keywords:** Artificial intelligent, Advancement, Performance evaluation, Recruitment and Staffing.

## 1. INTRODUCTION

A fast changing economic environment, typified by phenomena such as globalisation and market deregulation, shifting customer and investor needs, and ever-increasing product-market competition, has become

the standard for the majority of firms. To remain competitive, they must constantly improve their performance by lowering costs, developing products and processes, and increasing quality, productivity, and speed to market. We hope that by convening

this Special Research Forum on Human Resource Management and Organizational Performance, we can contribute to a deeper understanding of the role of human resource decisions in establishing and maintaining organisational performance and competitive advantage. The majority of businesses are struggling to make any headway in developing data analytics capabilities: 41% of CEOs report that they are not prepared at all to employ new data analytics technologies, and only 4% report that they are prepared "to a great extent" (IBM 2018).

The term "artificial intelligence" was coined in 1950. And it has been a contentious issue in the majority of reputable management journals since 1964. Since the 1960's, it was asserting that AI would eventually supplant human resources. However, we could see the AI position being filled in every other. As a result, it is inescapable in the human resources functional area. This transition will present new challenges to human resource functional heads in terms of mitigating these risks and ensuring the employability of a big population. The purpose of this research is to examine the impact of artificial intelligence on human resource practises among HR generalists in Bangalore.

## 2. What is artificial intelligence?

Before we proceed, let us take a step back and define what we mean by artificial intelligence. Artificial Intelligence is a subfield of computer science in which computers are "programmed" to act similarly to humans. According to Converge. xyz, there are three stages of artificial intelligence, and each level is quantified using "human reasoning." There are three levels of artificial intelligence: Strong AI, Weak AI, and In-between AI.

Four Ways Artificial Intelligence Could Affect Human Resources

### Individualization/Onboarding

Each new employee has unique learning preferences, which onboarding and training tools may not always accommodate. One intriguing possible benefit of AI is the customisation of employee training and coaching. The same machine-learning algorithms used to generate movie and restaurant recommendations will soon be accessible to create comparable modifications for newly hired personnel.

As more data on employees is collected, the system should get wiser, offering more accurate recommendations and providing more effective training.

### Scheduling

Simply said, scheduling is a waste of everyone's time and a chore that no one enjoys. As Workology puts it, "Imagine a world in which a machine books meetings, schedules appointments, and even orders food for you without you having to do a single thing." If that seems like your kind of world, we welcome you to meet Amy Ingram. Amy Ingram (clever AI initials) is an artificial intelligence personal assistant that attempts to alleviate the agony associated with scheduling. As noted previously, Amy is so human-like that many of those who hire her are unaware she is not a real person. Amy Ingram-like systems may become popular tools for arranging interviews and doing performance reviews, among other things.

### Engagement of Candidates

Not all teams are equipped with sufficient recruiters or the appropriate tools to engage with their talent on a consistent basis. AI might potentially be utilised to automate the process of sending emails and status updates. If done correctly, it has the potential to significantly improve the prospect experience. However, because automated messages are not always welcomed by the end user, authenticity will be paramount.

## Prediction

Assessing and forecasting future turnover, employee engagement, training requirements, and other workforce trends is a time-consuming but vital component of human resource management. AI and deep learning should be able to forecast more correctly and rapidly than ever before using data. The data presented may be beneficial to human resource specialists advising the organisation on transformation."

### 3. Affirmation of the Issues

The first issue is the complication of human resource results, such as what constitutes a "excellent employee." There are numerous dimensions to that construct, and quantifying it precisely for the majority of jobs is exceedingly difficult: performance appraisal scores, the most widely used metric, have been widely criticised for validity and reliability issues, as well as bias, and many employers have abandoned them entirely (Cappelli and Tavis 2017). "Because any decently complex task is interdependent with others, it is difficult to disentangle individual performance from collective performance (Pfeffer and Sutton 2006)."

In 2018, Amazon recognised that its hiring algorithm had precisely this problem for precisely this reason, and the business removed it as a result (Meyer, 2018)." Based on the foregoing explanation, it is evident that AI has a significant impact on human resource policy and procedures. Numerous studies document the difficulties faced by western countries as a result of AI integration. There are only a few studies that take an Indian perspective. Almost none of the studies focused only on Indian IT firms. As a result, this study focuses entirely on the adoption of AI and its influence on human resources in Bangalore-based IT organisations.

### 4. Review of literature

Bock (2015) describes that where a formal process reveals large disagreements as to causal factors, a way forward might include generating additional data from randomized experiments in order to test causal assumptions. Google became known for running experiments for all kinds of HR phenomena, from the optimal number of interviews per job candidate to the optimal size of the dinner plate in the cafeteria"

Pearl (2018) explains that the management literature has an important advantage over data science in articulating causal relationships, as opposed to prediction from correlations among observed variables in machine learning. Only recently, some powerful voices in the computer science community have articulated the problem of causation as critical for the future of AI in human affairs."

Fortuny, Martens, and Provost (2014) studied that Small Data is a fundamental concern for human resource analytics. Most employers do not hire many workers, nor do they do enough performance appraisals or collect enough other data points for their current workforce to use machine learning techniques because they do not have that many employees. The machine learning literature has shown that access to larger data has substantial advantages in terms of predictive accuracy"

From the above reviews it would be understood that there is impact in HR task due to AI. This study will take the following dimensions to measure the AI impact on HRM practices in Bangalore. Recruiting, Selection & on boarding, Training, Advancement and performance evaluation or management

### 5. Research methodology

The descriptive approach of investigation was used in this study. The information was gathered using a digital questionnaire

distributed among HR generalists employed by a variety of IT and ITES companies in Bangalore. Our convenience sampling techniques were used because the IT had been transmitted through known sources before arriving at our lab. We have distributed the information to the 1000 HR generalists in Bangalore. A total of 275 people answered to the questions, accounting for approximately 27.5 percent of the entire population. For the first week, the questionnaire was available for completion; after that, it was closed to new submissions. It is a questionnaire with a time limit. For the purposes of the analysis, the questionnaire was constructed using a 5-point Likert scale ranging from strongly agree to strongly disagree, which was marked as 5 points to 1 point during the questionnaire construction phase. The acquired data was analysed with the help of SPSS 19.0. The interpretations offered in this section are related to the study's objectives.

## 6. Objectives of the study

1. To study Artificial intelligence adaptation and its impact on Human resources practices across the selected IT companies in Bangalore
2. To analyse the adaptation of Artificial intelligence and its impact on recruitment practice and process
3. To study the adaptation of Artificial intelligence and its impact on employee engagement practices
4. To study the adaptation of Artificial intelligence and its impact on Performance evaluation process

## 7. Analysis and discussion

It is very important to study the demographical distribution of the

respondents before getting into a details analysis. It shows that there are 35% of the respondents are in the age range between 30 years to 35 years category, 15% of the respondents are in the age range of 45 years and above, 22% of them are in the age range between 41 years to 45 years category. There are 54% of the respondents are females and 46% of them are male. With regards to the experience there are 28% of the respondents are in the experience range between 11 years to 15 years. 24% of them are having up to 5 years of experience. 20% of them are in the 20 and above years of experience. Income is concerned 34% of them are in Rs.41000 and above category and 22% of them are in the income range between Rs. 36000 to Rs.40000. It is notable that distribution of the demographical background is best fit to explore the objective of this research. Since it has all the range of data from lowest to highest range.

Table No : 1 *Demographical background of the respondents*

Demography	Scales	Frequency	Percent
Age	up to 30 Yrs to 35 yrs	95	35
	35 yrs to 40 yrs	78	28
	41 Yrs to 45 yrs	60	22
	45 yrs & Above	42	15
Gender	Male	126	46
	Female	149	54
	Up to 5 Yrs	66	24

Experience [Completed yrs]	6 yrs to 10 Yrs	38	14	Income [Rounded off]	26000 to 30000	44	16
	11 Yrs to 15 Yrs	77	28		31000 to 35000	39	14
	16 Yrs to 20 Yrs	40	15		36000 to 40000	59	22
	20 Yrs and above	54	20		41000 & Above	92	34
	Up to 25 000	41	15				

Table No : 2 *Age wise and mean wise distribution of the respondent's opinion on various dimensions of HR practices and its impact due to AI*

Age	No	D1		D2		D3		D4		D5	
		M	SD	M	SD	M	SD	M	SD	M	SD
up to 30 Yrs to 35 yrs	95	1.63	0.48	1.68	0.47	1.74	0.44	1.64	0.48	1.63	0.48
35 yrs to 40 yrs	78	1.63	0.49	1.65	0.48	1.78	0.42	1.59	0.50	1.62	0.49
41 Yrs to 45 yrs	60	1.65	0.48	1.65	0.48	1.75	0.44	1.60	0.49	1.58	0.50
45 yrs & Above	42	1.62	0.49	1.62	0.49	1.71	0.46	1.62	0.49	1.57	0.50

Source: Primary data

[D1= Recruitment ,D2= Selection, D3 = Staffing,D4= Advancement D5= Performance evaluations]

Age wise and mean wise distribution of the respondent's opinion on various dimensions of HR practices and its impact due to AI. The respondents who is under the age range between 30 years to 35 years are opinion that selection dimensions has highly influence by AI based on the mean score  $M=1.68$  and its standard deviations shows that  $\pm 0.47$  it mean increase or decrease of the opinion is possible at part with standard deviation. Followed by Advancement dimension has highest mean score of  $1.64, \pm 0.48$  and performance evaluation are critical

at mean score of  $1.63, \pm 0.48$ . The respondents are in the age range 35 years to 40 years are opinion that staffing will be a critical elements based on the mean score that is  $1.78 \pm 0.42$ . The respondents in the age range 40 years and above opinions that staffing, Recruitment, selection and performance evaluation are most influenced dimensions but they are giving lease important for Advancement. Therefore it is very clear that the respondent's opinion on dimension varies however all the dimension has its own impact on HR practices.

Table No :3 Gender wise mean score on various dimensions of HR practices and its impact on adaptation of AI

Gender	No	D1		D2		D3		D4		D5	
		M	SD	M	SD	M	SD	M	SD	M	SD
Male	126	1.7	0.5	1.7	0.4	1.8	0.4	1.7	0.5	1.6	0.5
Female	149	1.6	0.5	1.6	0.5	1.7	0.5	1.6	0.5	1.6	0.5

Source: Primary data

[D1= Recruitment, D2= Selection, D3 = Staffing, D4= Advancement D5= Performance evaluations]

Gender wise mean score on various dimensions of HR practices and its impact on adaptation of AI. The results indicates that the highest number of female respondents opinions that arrival of AI has high amount of impact in the almost all the dimensions but it is high in Staffing based on mean score that  $1.7 \pm 0.5$ . The male respondents also opinions that staffing most critical factors based on mean score that is 1.8,  $\pm 0.4$ . The lease impact dimension is performance evaluation as far as male respondent's opinions that is  $1.6 \pm 0.5$ .

Table No : 4 Correlation matrix on various dimensions of Adaptation of Ai and its impact on HR practices

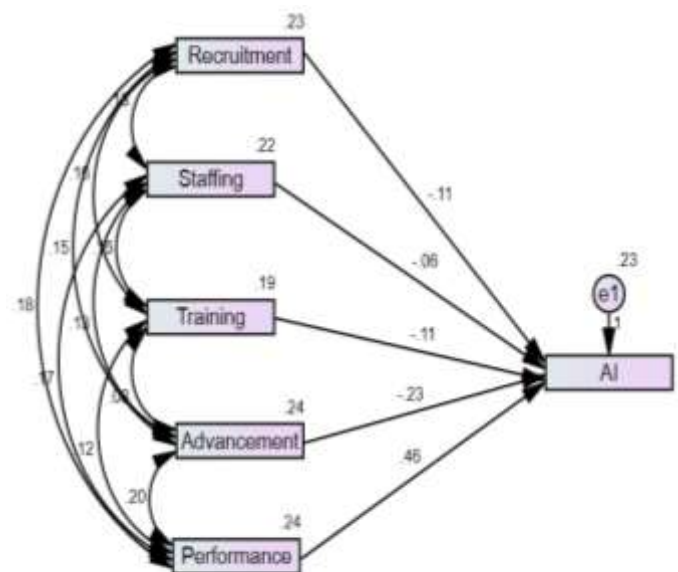
Dimensions	D1	D2	D3	D4	D5
D1	1				
D2	.803**	1			
D3	.760**	.785**	1		
D4	.637**	.579**	.369**	1	
D5	.762**	.739**	.548**	.847**	1

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

[D1= Recruitment, D2= Selection, D3 = Staffing, D4= Advancement D5= Performance evaluations]

Correlation matrix on various dimensions of Adaptation of AI and its impact on HR practices. It shows that it has good consist and relationship with each other. The variables which marked in two stars are significant with each other at 99% confident level.

Fig1. Structural equation model on Adaptation of AI and its impact on HR practices



Inference:

Total variables in the model are 7, observed variables are 6, unobserved variables, exogenous and endogenous 1 variable each.

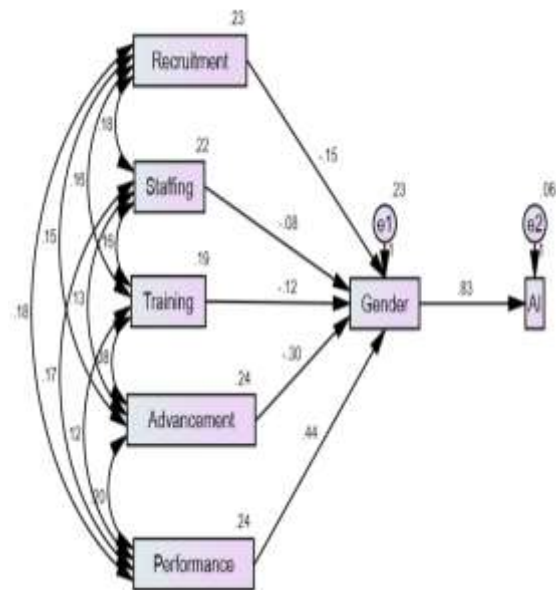
Table No: 5 Regression Weights on various dimensions of HR practices

Dimension	Direction	Variables	Estimate	S.E.	C.R.	P	Statistics
AI	<---	Recruitment	-.112	.123	-.912	P>.362	Not Significant
AI	<---	Performance	.460	.139	3.298	P<0.05	Significant
AI	<---	Advancement	-.227	.115	-1.981	P>.048	Not Significant
AI	<---	Training	-.108	.121	-.890	P>.373	Not Significant
AI	<---	Staffing	-.061	.125	-.486	P>.627	Not Significant

Sources: Primary data

The above table representing that relationship between the dependent and independent variables it shows that performance dimension has a significant relationship with AI it means that HR generalised opinion that this will be a critical dimensions that high amount of impaction due to adaptation of AI in Hr Practices. It is found that the calculated CMIN/DF (Chi-square Minimum /Degree of Freedom) value is 0.000 The fit between the data and the proposed measurement model can be tested with a Chi-square Minimum /Degree of Freedom (CMIN/DF) test where the probability is lesser than or equal to 5 which indicates that the model is fit. Here GFI (Goodness of Fit Index) and AGFI (Adjusted Goodness of Fit Index) values are positioned at 0.10 and 0.272 respectively. The calculated CFI (Comparative Fit Index) value is 1.00 and also it is found that RMSEA (Root Mean Square Error of Approximation) value is 5.48.

Fig2. Structural equation model on Adaptation of AI and its impact on HR practices during the intervene of Controlling factors



Total number of variable used in this model are 9 in that observed variables are 7 and unobserved variables are 2, Exogenous variables are 7 and endogenous variable are 2

Table No :6 *Regression weights on various dimensions of HR practices*

Dimensions	Direction	Variables	Estimate	S.E.	C.R.	P	Statistics
Gender	<---	Recruitment	-.148	.125	-1.181	0.238	Not significant
Gender	<---	Staffing	-.085	.127	-.667	0.505	Not significant
Gender	<---	Advancement	-.297	.117	-2.544	0.011	Not significant
Gender	<---	Performance	.443	.142	3.121	0.002	Not significant
Gender	<---	Training	-.120	.123	-.969	0.332	Not significant
AI	<---	Gender	.833	.031	27.245	0.000	Significant

Source: Primary data

It is seen in the above table how the link between the dependent variable and the controlling variables is represented. It is clear that there is a statistically significant association between gender and perceptions about the impact of artificial intelligence. The remaining variables are not significantly associated with one another. However, there is only a slight difference between the rates that are significant and those that are not significant. We discover that the estimated Chi-square rate is 15.325 and the CMIN/DF (Chi-square Minimum/Degree of Freedom) value is 3.065; both of these values are significant. Using a Chi-square Minimum/Degree of Freedom (CMIN/DF) test, it is possible to determine whether or not the data and suggested measurement model are in good agreement. If the probability is less than or equal to 5, the model is considered to be in good agreement. There are 0.176 and 0.914 GFI (Goodness of Fit Index) values in this case, and the adjusted GFI (Adjusted Goodness of Fit Index) value is 0.176. The calculated CFI (Comparative Fit Index) value is 0.994, while the RMSEA (Root Mean Square Error of Approximation) value is 0.92, as determined by the RMSEA calculator.

## 8. Conclusion

It has become the norm for most organisations to operate in an economic environment that is rapidly changing, characterised by phenomena such as globalisation of markets and deregulation of markets, shifting customer and investor demands, and increasing product-market competition, among other things. In order to compete, they must constantly improve their performance by lowering costs, developing new goods and processes, and increasing quality, productivity, and speed to market, among other things. The term artificial intelligence (AI) was first used in 1950. Most reputable management publications have considered it a highly disputed topic since 1964, and many still do today. It has been predicted that artificial intelligence will eventually replace human resources since the 1960s. We could, on the other hand, envisage the AI position being filled in every other scenario. As a result, it is inescapable in the human resources functional area. This transition will provide new issues to the HR functional heads, who will need to figure out how to offset these challenges while still ensuring the employability of a vast population. According to the findings, the greatest



number of female respondents believe that the entrance of artificial intelligence has a significant degree of impact in practically all dimensions, but that it is particularly significant in staffing, as indicated by the mean score of 1.70.5. According to the mean score of 1.8 and 0.4, the male respondents likewise believe that staffing is one of the most important issues. According to the perspective of male respondents, the biggest impact component is performance appraisal, which has a 1.60.5 score. As a result, it is necessary to pay strategic attention to staffing factors in order to maximise the degree of satisfaction among both male and female human resources.

## Reference

- [1] W Bock, Laslo. 2015. *Work Rules! Insights from Inside Google That Will Transform How You Live and Lead*. Hachette Book Group.
- [2] Cappelli, Peter and AnnaTavis. 2017. *The Performance Management Revolution*.
- [3] Couldn't Stop the Tool from Discriminating Against Women. *Fortune*.
- [4] *Harvard Business Review*, November.
- [5] Junqué de Fortuny, E., Martens, D., & Provost, F. (2013). "Predictive modelling with big data: is bigger really better?" *Big Data*, 1(4), 215-226.
- [6] Meyer, David. 2018. *Amazon Reportedly Killed an AI Recruitment System Because It*
- [7] Pearl, Judea. 2018. *The Book of Why: The New Science of Cause and Effect*. Basic Books.
- [8] Pfeffer, Jeffrey and Robert I. Sutton. 2006. *Hard Facts, Dangerous Half-Truths and Review Press*.
- [9] *Total Nonsense: Profiting from Evidence-Based Management*. Harvard Business