

# The Determinants of Artificial Intelligence in HRM of IT Sector with Reference to KTCC Zone

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## ARTICLE INFO

## ABSTRACT

This article investigate the role of Artificial Intelligence in Human Resources Management (HRM) within the IT sector, it is specifically focusing on the innovative practices employed in the KTCC Zone IT sector. The IT sector have fast advancements, integration of AI in HR processes becomes important for IT sector the aim is to stay competitive and efficient. This study highlight how the IT industries adapts AI technologies to develop its human resources practices. The adoption of AI in HR, contributing to understand the employee side implications of technology and the HR practices. The findings offer valuable insights to IT industry HR department and policymakers also it providing a roadmap for AI implementation in HRM. It aims to contribute a broader discourse on adopting technology to optimize the human capital in the energetic landscape of the IT sector.

**KEYWORDS:** HRM, IT sector, Artificial Intelligence and technologies

## INTRODUCTION

The IT sector stands at the forefront of technological advancements, innovation, and demands in the market. The role of Human Resources management is most important in shaping the success of organization. The arrival of AI offering opportunities, optimizing the HR processes and developing the new dimensions of workforce management. The Human Resources management has found a way to direct the advancements to increase the productivity, market competition and cost effectiveness (Varallyai and Hmoud, 2020). The innovative technology launched the quick evolution of HR Information Systems as newer capabilities like AI began to excellent practices within the HR operations. The incorporation of artificial intelligence in HR processes enhances sustainable business models (Di Vaio et al., 2020). Conversely, the growth and evolution helps to understand the current state of AI within the HR processes. The AI help to enhance decision-making, streamline the operations and improve the employee management. The outcomes and experiences of artificial intelligence adoption in HR management, adopting a collaborative environment for the improvement and innovation.

## SUSTAINABLE FINANCE IN HUMAN RESOURCE MANAGEMENT

Sustainable finance in Human Resource Management involves incorporating social, environmental and control principles into the management of employees within the organizations. Sustainable finance in Human Resource Management places a strong emphasis on developing a workplace culture that prioritizes the employee well-being, it includes the initiatives such as mental health support, wellness programs and WLB. The IT companies need to practice the sustainable finance in Human Resource Management actively promote and inclusion.

## REVIEW OF LITERATURE

This study indicated the integration of AI within HRM and its limitations also it highlight the importance of AI in HRM for the betterment of employees and the IT sector (Alexis Megan Votto, Rohit Valecha, Peyman Najafirad and H. Raghav Rao, 2021). It is dedicated to the workplace synthesis, relationship building and

creativity, also the employees care those who are work for the organization (Laker and Powell, 2011, Cregan et al., 2021). The discipline of HRIS comprises of two separate intellectual assets such as managerial HRIS and technical HRIS (Mayfield et al., 2003; Collings et al., 2018; Stewart, 2007). The technical HRIS reflects the data, reasoning, logic and understanding. The pressure of reducing discrimination within the process of recruitment, employee benefits and compensation is imperative to maintaining the reputation within the industry (Rathi, 2018).

The managerial HRIS highlights the importance of improving employee motivation practices to develop the workplace relationships between employees and organization (Cregan et al., 2021). The managerial HRM is a unique people-centered organizational strengths which contribute to making the decisions relating to expertise, commitment, employee skills and culture (Stewart, 2007, Mayfield et al., 2003). The intrapersonal relationships is an organization's ability to effectively self-reflect on the successes and failures also its growth. These interactions is perceptive and very self-reflective to the environment (Laker and Powell, 2011). Retaining and acquiring talent creates a demand for streamlined HRIS to assist in hiring process and prevent the company from falling short due to the inability to evaluate, interview and select the qualified candidates (Hmoud and Laszlo, 2019, Ahmed, 2018). The managerial HRIS relates to the technologies which enhance the organization's ability to generate and maintain the skilled and effective intrapersonal and interpersonal relationships. The interpersonal relationships is an organization's ability to exchange and connect ideas and information between two or more individuals to build relationships (Laker and Powell, 2011). They focussed on employee behavioural rehabilitation and the processes of termination (Tariq et al., 2016).

### OBJECTIVES OF THE STUDY

- ✓ To assess the AI integration in HRM in the IT sector.
- ✓ To investigate the challenges and benefits of AI adoption in HRM in the IT sector.

### HYPOTHESIS OF THE STUDY

- ✓ There is an association between Automation allowing the HR teams to focus on the strategic initiatives and age of the respondents.
- ✓ There is an association between AI tools contribute more to the IT industry in HR recruitment processes and age of the respondents.

### METHODOLOGY

The researcher distributed 150 questionnaires to collect data, resulting in 143 responses, of which 139 were deemed usable. Consequently, the sample size of this study is 139. The Cronbach's Alpha Value for this study was 0.785, which exceeded the 0.7 threshold, confirming the reliability of the questionnaire. The KMO value stands at 0.735, which surpasses the 0.5 threshold. Hence, it is categorized as an excellent level of adequacy.

### RESULTS AND DISCUSSION

#### Community Table

	Initial	Extraction
AI helps in workforce planning to predict the future skill requirements	1.000	.579
IT sectors are using AI tools to identifying the talent gaps	1.000	.499
Automation allowing the HR teams to focus on the strategic initiatives.	1.000	.656
Automation in IT sector could lead to resource optimization and efficient HR practices.	1.000	.574
AI tools contribute more to the IT industry in HR recruitment processes	1.000	.705
It lead to easier identification of suitable candidates.	1.000	.825
AI in recruitment and selection process will reduced bias in hiring	1.000	.339
Extraction Method: Principal Component Analysis.		

Initially all variables in the communality table is expected to share 100% variance. Consequently, initial value of each items is 1.00 which means 100% variance share by each item. The extraction value is ranging from 0.339 to 0.825 which shows that minimum variance share of item after extraction is 33.9% and the maximum variance share of item is 82.5%.

**TOTAL VARIANCE EXPLAINED**

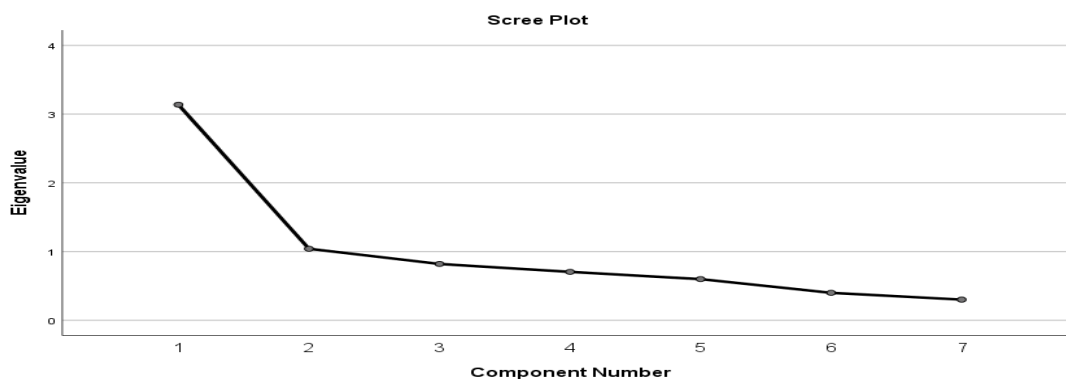
**Table 2: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	3.137	44.814	44.814	3.137	44.814	44.814	2.428	34.687
2	1.041	14.866	59.680	1.041	14.866	59.680	1.749	24.993	59.680
3	.820	11.708	71.388						
4	.704	10.062	81.450						
5	.599	8.555	90.005						
6	.399	5.703	95.707						
7	.300	4.293	100.000						

Extraction Method: Principal Component Analysis.

Total variance contributed by second component is 59.680. The Eigen value for a given factor measures the variance in all the variables which is accounted by that factor. It is also clear that there is two distinct components having the Eigen values greater than 1 from the given set of variables. Eigen value for factor 1 is 3.137 and factor two is 1.041.

**Chart 1: Scree Plot**



**ROTATED COMPONENT MATRIX**

**Table 3: Rotated Component Matrix<sup>a</sup>**

	Component	
	1	2
AI tools contribute more to the IT industry in HR recruitment processes	.839	
Automation allowing the HR teams to focus on the strategic initiatives.	.787	
Automation in IT sector could lead to resource optimization and efficient HR practices.	.694	
IT sectors are using AI tools to identifying the talent gaps	.607	
It lead to easier identification of suitable candidates.		.908
AI helps in workforce planning to predict the future skill requirements		.671
AI in recruitment and selection process will reduced bias in hiring		.461

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 3 iterations.

**Factor 1:**

AI tools contribute more to the IT industry in HR recruitment processes  
 Automation allowing the HR teams to focus on the strategic initiatives.  
 Automation in IT sector could lead to resource optimization and efficient HR practices  
 IT sectors are using AI tools to identifying the talent gaps  
 All the items were loaded above 0.60 which is in the acceptable level of 0.05. All these items reflect one construct namely **Planning and Optimization.**

**Factor 2:**

It lead to easier identification of suitable candidates.  
 AI helps in workforce planning to predict the future skill requirements  
 AI in recruitment and selection process will reduced bias in hiring  
 All the above items reflect one construct namely **Recruitment and selection.**

**ANOVA**

**Table 4: ANOVA**

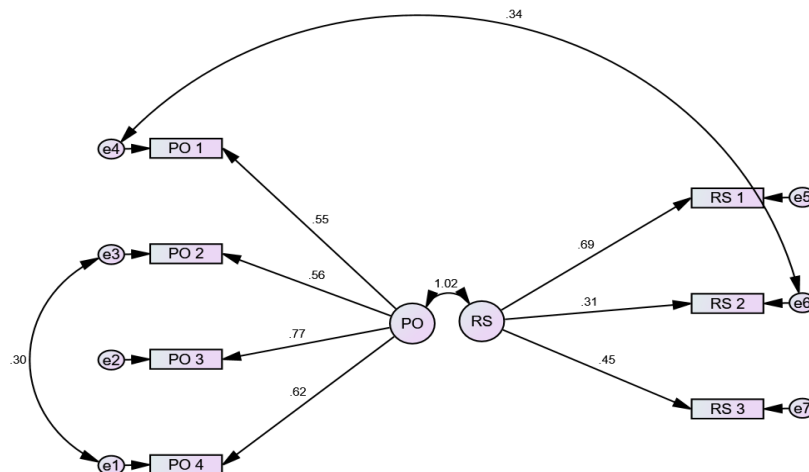
		Sum of Squares	df	Mean Square	F	Sig.
AI helps in workforce planning to predict the future skill requirements	Between Groups	7.111	4	1.778	2.493	.046
	Within Groups	95.566	134	.713		
	Total	102.676	138			
IT sectors are using AI tools to identifying the talent gaps	Between Groups	1.615	4	.404	.718	.581
	Within Groups	75.320	134	.562		
	Total	76.935	138			
Automation allowing the HR teams to focus on the strategic initiatives.	Between Groups	3.417	4	.854	.896	.468
	Within Groups	127.777	134	.954		
	Total	131.194	138			
Automation in IT sector could lead to resource optimization and efficient HR practices	Between Groups	2.020	4	.505	.538	.708
	Within Groups	125.736	134	.938		
	Total	127.755	138			
AI tools contribute more to the IT industry in HR recruitment processes	Between Groups	4.052	4	1.013	.692	.599
	Within Groups	196.307	134	1.465		
	Total	200.360	138			
It lead to easier identification of suitable candidates	Between Groups	2.270	4	.568	.582	.676
	Within Groups	130.694	134	.975		
	Total	132.964	138			
AI in recruitment and selection process will reduced bias in hiring	Between Groups	3.582	4	.895	1.106	.356
	Within Groups	108.490	134	.810		
	Total	112.072	138			

It was ascertained from the above table, the p-value of AI helps in workforce planning to predict the future skill requirements is less than 0.05 at 5% level of significance. Hence, null hypothesis was rejected for the above variable. So, there is a relationship between AI helps in workforce planning to predict the future skill requirements and age of the respondents.

The p-value of the variables such as IT sectors are using AI tools to identifying the talent gaps, Automation allowing the HR teams to focus on the strategic initiatives, Automation in IT sector could lead to resource optimization and efficient HR practices, AI tools contribute more to the IT industry in HR recruitment processes, It lead to easier identification of suitable candidates and AI in recruitment and selection process will reduced bias in hiring are more than 0.05 at 5% level of significance. Thus, null hypothesis was accepted for the above variables. Therefore, there is no significant relationship between the above variables and age of the respondents.

**CONFIRMATORY FACTOR ANALYSIS**

**Figure 1.1**



**GOODNESS OF FIT TEST FOR CFA**

S.NO	Measure	Recommended value	Observed Values	Interpretation
1	CMIN/DF	Between 1 and 5	3.170	Excellent
2	CFI	>0.90	0.906	Excellent
3	GFI	>0.90	0.937	Excellent
4	AGFI	>0.80	0.841	Excellent
5	IFI	>0.90	0.910	Excellent
6	RMR	<0.08	0.055	Excellent

- CMIN/DF (Comparative Fit Index divided by Degrees of Freedom): The CMIN/DF value of 3.170 falls within the recommended range. This suggests that the model fits the data well in terms of the goodness of fit.
- CFI (Comparative Fit Index): The CFI value of 0.906. It indicates a high degree of fit between the model and the observed data.
- Goodness of Fit Index (GFI) obtained is 0.937 as against the recommended value of above 0.90.
- AGFI (Adjusted Goodness of Fit Index): The AGFI value of 0.841 surpasses the recommended threshold, signifying excellent model fit.
- IFI (Incremental Fit Index): The IFI value of 0.910 is well above the recommended threshold, indicating an excellent fit.
- Root Mean Square Residual (RMR) is 0.055 which is below the recommended limit of 0.05. Hence the model shows an overall acceptable fit and thus it is an over identified model.

**CONCLUSION**

The study on AI in human resources management within the IT sector emphasize the impact of Artificial Intelligence on different aspects. This emerging technologies will develop the employees and the IT sector, in future it may impact the HR practices. Encourage the IT sector to continue exploring the innovative ways to influence Artificial Intelligence in Human Resource Management. The continuous collaboration between human expertise and Artificial Intelligence technologies to create an effective HR environment. The HRM effectively utilize and adapt the Artificial Intelligence technologies to enhance the employee performance and efficient HR practices. The availability of training programs within the IT sector enrich the competencies of human resource teams in understanding and adapting the Artificial Intelligence tools.

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