ORIGINAL RESEARCH PAPER

Management

KEY WORDS: Artificial intelligence, Human resources, HR task and execution, Roles & responsibility and transparent operation.

ARTIFICIAL INTELLIGENCE ADAPTABILITY AND ITS IMPACT ON HUMAN RESOURCES PRACTICES: A STUDY WITH REFERENCE TO SELECTED INFORMATION TECHNOLOGY COMPANIES IN CHENNAI

Dr. C K. Muthukumaran Associate Professor, Alagappa Institute of Management, Alagappa University, Karaikudi, Tamil nadu

I. Anand* Research scholar, Alagappa Institute of Management, Alagappa University, Karaikudi, Tamil nadu. *Corresponding Author

ABSTRACT

Artificial intelligence will definitely shake the landscape of every individual function of management. Human resources management is the key for the success of any organisation but recent technology will help the human resource to operate with the help of machine which will reduce their work and help them to concentrate more on other aspects of the organisation. The present study is an investigation on Artificial intelligence adaptability and its impact on human resource practice in TI companies. This study employed ex post facto method of research. There are 150 respondents selected based on convenience sampling techniques. The results indicates that the highest percentage of the female respondent's accepted that , HR roles and responsibilities, HR functional aspects and HR transparency has drastically changed due to adaptation of Artificial intelligence in HR practices based on the mean score 1.78 and standard deviation ± 0.42, Mean = 1.77 ,standard deviation ±0.43, Mean=1.51 standard deviation ± 0.50 respectively.

0.1 INTRODUCTION

The industry 4.0 era, referred as 4th industrial revolution would pave the way for inclusion of artificial intelligent in every functional area of management. The intelligent machine work and act like human. Human resource management in the Information technology is indispensable function of the management. Now a day's artificial intelligence has play an important role in that. "According to According to the India Report of Deloitte's 5th Annual Global Human Capital Trends, 53% of companies are revamping their HR programmes to deploy digital tools, while 22% have already leveraged AI to deliver HR solutions." These trend already ease the work of HR. Today HR is no more tedious job since recruitment, screening, performance appraisal all has machine support. Therefore, it is very important to know what the Impact of HR practices are due to AI. Further it landscapes the news challenges to the management practitioner. This paper is an attempt to study an impact of AI in the HR practices across the IT companies in Chennai.

0.2 Reviews of literature

"One of the most talked about and debated trends in HR Technology has been Artificial Intelligence (AI). Quick searches of the topic prompt wild predictions that believe AI will be a game-changer in productivity for HR professionals. There are also others who fear "machine" could take our jobs. The truth is, while there's reason to be cautiously optimistic, it's still much too early to predict the exact impact of AI in HR and Talent Acquisition. Like any new technology in our space, if not used properly and with the right strategy behind it, users can find themselves deep in the rabbit hole." "In the corporate world, one of the best fields to put AI to good use are HR departments, as the companies' first line in dealing with the "human" component of their businesses. In AI, they can find a great ally at all stages of their professional work, from early shortlisting of talents and applicants' screening to later on boarding procedures and performance assessment. In addition to removing the unneeded burden from HR personnel, AI can help with streamlining all of these tasks and gaining unprecedented insights into the real performance potential of each candidate and employee." Ulrich and Dulebon (2015) described the emergence of HR and propose the future of HR for increased and sustainable value. The authors have studied the HR's transformation waves from administrative to HR strategy waves." "Automation transformations require change. HR will experience a shift in required skills sets. No longer will HR spend their time writing the perfect job description and sifting through a list of 100 people that have exact keyword matches. HR's role will evolve, requiring a new focus and a new strategy." In continuation of various review, it would conclude that Artificial Intelligence (AI) will highly impact the prototype function of HR practices like recruiting, screening, performance appraisal etc., Based on the review there are dimensions and parameters to be studied identified

0.3 Problem focused

This paper primarily focuses on impact of traditional HR practices due to adaptation of artificial intelligence (AI). The maximum time and consideration of top manager is invested in leadership hiring, which should ensure a good strategy, planning and direction for the business. However, the execution of the HR function normally done by the Human with helps of machine. But now AI replaces most of the human resources function into machine interface. "The Human Resources Professional Association (HRPA) reported in a 2017 survey that 52 percent of respondents indicated their businesses were unlikely to adopt AI in their HR departments in the next five years. About 36 percent believe their organization was too small to do so, while 28 percent said their senior leadership did not see the need for such technology." Now the question is how the AI would be transparent. AI would replace the need of the broad function of HR

0.4 Objectives of the Study

- Artificial intelligence adaptation and its impact on Human resources practices in IT Companies
- Artificial intelligence adaptation and its impact on roles and responsibilities aspect of the HR practices
- Artificial intelligence adaptation and its impact on Job and competency aspect of the HR practices

0.5 METHODOLOGY

This research depends on ex post facto research. We describe what has happened and happening in HR industry due to the adaptation of Artificial intelligence. The total population is all the HR on board and off board support providers. This study has selected 150 HR professional invariably their designation has taken for the study. The sample were chosen based on the convenience sampling methods. The study specifically focuses only on the HR aspects in the IT companies. The primary method of Data College deployed to collect the data. The structures questionnaire uses to collect the relevant data. Data were obtaining from the respondents during the working hours. The following variable identified for measuring impact of artificial intelligence (AI) in HR practices

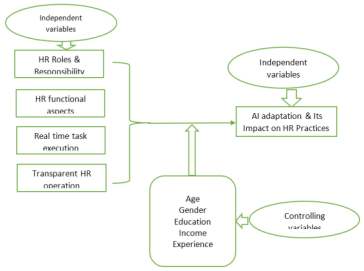

Fig:1 Anand I and CK Muthukumaran Conceptual framework on AI adaptation impact on HR

0.6 ANALYSIS AND DISCUSSION

The data were analysed with the help of SPSS. The Reliability statistics shows that Cronbach's Alpha value is0 .748. According to Gliem & Gliem (2003) Ideally, the Cronbach's alpha coefficient of a scale should be above 0 .70 . In this case we have 0 .748 which indicates there should be good internal consistency in the data. The demographical values show that 51.3% of the respondents are male and 48.7% of the respondents are female. There are 27.2% of the respondents are in the age range up to 30 years' category and 44.3% of the respondents are in the age range between 31 years to 35 years. 22.8% of them are in the age range between 36 years to 40 years. And meagre 5.7% of them are 41 years & above age category. The highest 42.4% of the respondents are other than MBA but having different PG qualification. 39.2% of them are MBA graduates from tier II B schools and 18.4 & of them are MBA's from Tier I B Schools including IIMs. There are 26.6% of the respondents are in the experience category of Up to 5 years.32.9% of them are in the experience rage between 6 years to 10 years. 21.55 of the respondents are in the experience range between 11 years to 15 years and 19% of the respondents having experience 15 years and above. While looking in to demographical distribution is best fit to the study and opinions derived from the respondents will rightly validate the study

Table 1:Gender wise respondent's opinion on AI adaptation and its impact on HR practices

Gender	N	HR Roles & Responsibility		HR Functional Aspects		HR Task Execution		Transparency in HR Operation	
		Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Female	77	1.78	0.42	1.77	0.43	1.49	0.50	1.51	0.50
Male	81	1.64	0.48	1.65	0.48	1.62	0.49	1.48	0.50
Total	158	1.71	0.46	1.71	0.46	1.56	0.50	1.49	0.50

Sources: Primary data

The table 1 describing the gender wise respondent's opinion on AI adaptation and impact on HR function shows that female respondents opinions that AI adaptability has created high impact in the following HR practise that is HR roles and responsibility it shows, the mean value of 1.78 and its standard deviation ± 0.42, HR functional aspects has mean value of 1.77 and standard deviation is ± 0.43 and Transparent HR operations shows 1.62 mean value and standard deviation of ±0.49. Whereas the male respondents' opinion that HR task execution changes due to influence of AI it shows the mean value of 1.62 and ± 0.49. Both respondents accepted that AI adaptation has changes the safe of HR in many aspects however there would be a meagre increase and decrease in the opinion of male and Female HR professional.

Table 2: Age wise respondent's opinion on AI adaptation and its impact on HR practices

Age	N	HR Roles & Responsibility		HR Functional Aspects		HR Task Execution		Transparency in HR Operation	
		Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Up to 30	43	1.86	0.35	1.72	0.45	1.79	0.41	1.72	0.45
31 Yrs to 35 yrs	70	1.61	0.49	1.71	0.45	1.32	0.47	1.40	0.49
36 Yrs to 40 Yrs	36	1.63	0.48	1.63	0.48	1.72	0.45	1.38	0.49
41 Yrs & Above	9	2.00	0.00	1.88	0.33	1.55	0.52	1.55	0.52

Sources: Primary data

The table 2 represents that age wise respondents' opinion on AI adaptation and it impact on HR Practices. It shows that respondents are in the age 41 years and above strongly opinions that HR role and responsibilities changes drastically it has highest mean value of 2 and possibilities deviating this opinion based on standard deviation ± 0.00. And the further believes that HR functional aspects also has some amount of influences it has highest mean value of 1.889 and standard deviation of ±0.33. The respondents are in the age category Up to 30 years shows highest mean value for the following facets that is HR task execution 1.791 and standard deviation ±0.412, Transparent HR operations has mean value 1.721 and standard deviation of ± 0.454. The youngster has opinion that AI adaptation impacts the HR practices and above middle age group believes that it influences highly.

Table 3: Correlation matrix on various dimension of AI adaptation and impact on HR practices

Dimensions	Roles	Function	Task	Transparent
HR Roles & Responsibility	1	.387**	.186*	.243**
HR Functions	.387**	1	-.039	.243**
HR Real time Tasks	.186*	-.039	1	.193*
Transparent HR Operation	.243**	.243**	.193*	1
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

Sources: Primary data

The table 3 discloses that correlation matrix on various dimension of AI adaptation and its impact on HR practices. It shows HR roles and responsibilities has significantly correlated with HR function and Transparent HR operation (P <0.01) and it has significant coloration with HR real time task execution with (P<0.05) level. HR function has significantly correlates with HR roles and responsibilities and Transparent HR operation at (P<0.01) level. Whereas it has no significant relation with Real time HR task execution. With respects to HR real time tasks execution has significant relation with HR roles and responsibilities and Transparent HR operation at (P<0.01) level. With regards to Transparent HR operation has significant relation with HR roles and responsibilities, HR function at0.01 level and with real time task execution at 0.05 level of significance.

0.7 Structural equation modelling

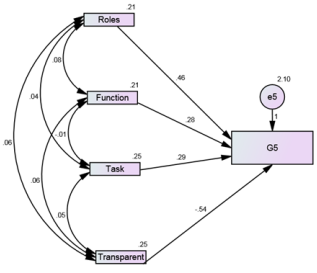

Fig 1. AI adaptation and its Impact on HR practices

The factor model is to determine whether the four dimensions (HR role and responsibilities, HR functions, HR real time task execution and Transparent HR operation) can be viewed as appropriate indicator for measuring AI adaptation impact on HR practices. The measurement model for the Impact on Hr practices shows that X2 =0.00 P < 0.05; GFI = 0.57; CFI =1.00; AGFI = 0.798; and RMSEA = 0.181. It indicates that model fit with the data is fairly well. Where the Chi-square minimum and Degree of freedom is less than or equal to 5 indicates the model is fit.

Table 4: Regression value

HR Impact		Dimensions	Estimate	S.E.	C.R.	P	Results
AI Impact	<---	Roles	.464	.285	1.626	.104	Not supported
AI Impact	<---	Function	.282	.284	.995	.320	Not supported

AI Impact	<---	Task	.295	.243	1.214	.225	Not supported
AI Impact	<---	Transparent	-.545	.246	-2.213	.027	Supported *

** (P <0.01) * (p <0.05)

Based on the SEM it would interpret that transparent HR operation would be highly influenced by the AI adaptation based on the study. Other dimension has some amount of impact but not in the positive side.

0.8 Structural equation modelling with controlling variable

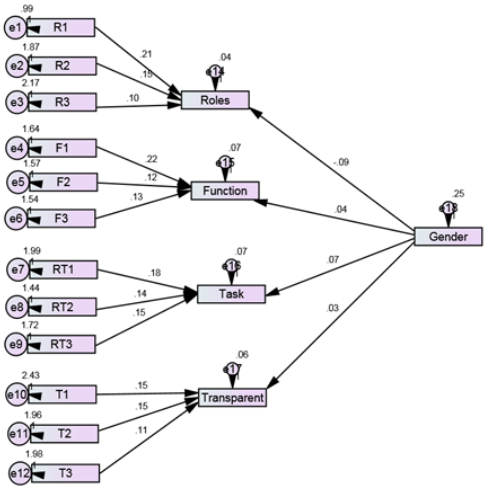

Fig 2: Various dimension of AI adaptation and its impact on HR practices with respects to Gender

The factor model is to determine whether the four dimensions (HR role and responsibilities, HR functions, HR real time task execution and Transparent HR operation) which tested with controlling variable influences. It can be viewed as appropriate indicator for measuring AI adaptation impact on HR practices. The measurement model for the Impact on HR practices shows that X2 =49.13 P < 0.05; GFI = 0.71; CFI =0.68; AGFI = 0.630; and RMSEA = 0.141. CMIN/DF = 4.14. It indicates that model fit with the data is fairly well. Where the Chi-square minimum and Degree of freedom is less than or equal to 5 indicates the model is fit.

0.9 CONCLUSION

Artificial intelligence has reduced the human resources traditional function and pave the way for concentrating more other task of the human resource management. The present study is evident from the information technology sectors which need high amount of human resources practices and having continuous implementation of human resources function and activities. This study covers the 150 respondents of various IT companies in Chennai based on convenience sampling techniques. The ex post facto research method deployed for the purpose of the study. The results indicates that , the highest percentage of the female respondent's accepted that , HR roles and responsibilities, HR functional aspects and HR transparency has drastically changed due to adaptation of Artificial intelligence in HR practices based on the mean score 1.78 and standard deviation ± 0.42, Mean = 1.77 ,standard deviation ±0.43, Mean=1.51 standard deviation ± 0.50 respectively. Whereas male respondents strongly accepted that HR task execution has influenced significantly due to adaptation of artificial intelligence based on the mean score 1.62 standard deviation 0.50. It can be concluded that both male and female respondents accepting that there would be an impact on HR practices due to adaptation of artificial intelligence. The increase and decrease of acceptance level between male and female respondents is negligible. However, it would be advisable to concentrate on alterative skill set of the HR professional will help them to stay the profession for the longer period.

REFERENCE

1. Dr Jeremy Nunn, .(2018, May 9) How AI Is Transforming HR Departments, "Forbes, retrieved from :https://www.forbes.com/sites/forbestechcouncil/ 2018/05/09/how-ai-is- transforming-hr-departments/#2b802fe1c0f6
2. Gliem J.A. and Gliem R.R. (2003) Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. 2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education, Columbus, 82-88.
3. https://www.vccircle.com/how-ai-and-machine-learning-will-impact-hr-practices
4. Hr Technology : "Artificial Intelligence and Its Impact on HR Technology" (n.d) retrieved from https://www.wepow.com/en/blog/artificial-intelligence-impact-hr-technology/
5. Sushman Biswas. (2018, Mar 15). Employee Experience, Jobs and Skills: How AI will Impact HR. HR technologist. Retrieved from : https://www.hrtechnologist.com/articles/ digital-transformation/employee-experience-jobs-and-skills-how-ai-will-impact-hr/
6. Ulrich, D. and Dulebohn, J. (2015), Are we there yet? What's next for HR?, Human Resource Management Review 25 (2015), 188-204.