

# ARTIFICIAL INTELLIGENCE-BASED HRM TECHNOLOGICAL TOOLS, IN HRM DECISION

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## Abstract

Artificial Intelligence plays an indispensable role in enabling human capabilities in understanding, reasoning, planning, communication, and perception. The automation of AI abilities creates new opportunities in Human Resource Development. Chatbot interfaces help in the multitasking process in HRM which includes shortlisting, interviews, and training programs. It reduces the burden of the HR manager as well as effectively uses the organization's resources efficiently. The present study highlights AI-enabled eHRM technologies application in various software companies in Chennai city. The sample is collected from employees working in the IT sectors using a convenient sampling method. The key focus of the study is on examining the AI-based HRM Technology Tools adopted by HR managers. The results show 12 AI-based HRM Technology Tools have been reduced into three dominant factors namely Machine Language and Automation Factor (MLAF), Data Analytics and Acknowledgement Factor (DAAF), and Robotics and Bio Recognition Factor (RBRF). It has been observed that AI-based eHRM technology has been used in every process of recruitment.

**Keywords:** Artificial intelligence, AI-enabled, EHRM, IT and ITES sectors, Technological tools.

## INTRODUCTION

AI has skills that aid in three areas of company operation. For starters, AI may improve business process automation by incorporating cognitive capabilities into software. Organizations, for example, are utilizing AI to supplement automated decision-intensive operations like loan processing and supply chain management, as well as to give cognitive insights into client purchase behaviour. In support of HRM, the National Aeronautics and Space Administration (NASA) discovered that by enhancing HR procedures using AI, they were able to execute 86 percent of HR duties without the need for human interaction.

In a sense, with AI-enabled process automation, the software makes and implements choices algorithmically with minimum human participation. Given that researchers have discovered that AI-based expert systems can mimic the decision recommendations of employee benefits experts, AI-enabled eHRM would not simply recommend a set of benefits from which employees could choose, but would choose these benefits for them and automatically sign them up. Second, AI can deliver cognitive insights to aid decision-making. This type of AI uses algorithms and machine learning to evaluate massive volumes of data in search of previously unknown patterns.

AI will be used to target messages to specific groups of people to optimize the impact of each ad and cut expenses. Furthermore, AI was able to detect cancer patients in a fraction of the time required by a panel of medical professionals. AI has also aided in determining the relationship between work qualities and employee happiness.

Finally, AI can help with cognitive engagement by utilizing intelligent agents and chatbots. Because the purpose of chatbots and intelligent agents is to collect and share knowledge from a knowledge base, and to communicate that knowledge with others through natural and human-like social interaction, these agents are the closest thing to AI as Turing postulated. One of the motivations for installing chatbots in enterprises is to handle the ever-increasing amount of information requests from applicants, employees, and customers. Many e-commerce businesses, for example, use intelligent agents to assist customers in making purchasing decisions.

## STATEMENT OF THE PROBLEM

Artificial intelligence analyzes huge amounts of data to generate responses and information very similar to that of a human being. However, AI does it much faster. artificial intelligence became the reason for many debates and discussions. After all, this technology certainly has its advantages and disadvantages and should be taken into account by any company looking to adopt it for its HR department. Artificial intelligence has largely appeared in the form of chatbots, video interview platforms, and even smart tools for crafting ads when it comes to HR. A strong AI system will foster a deeper understanding of people's behaviour and pattern. By consolidating and comprehensively analyzing employees, moods, and intentions on different digital platforms human behaviour can be simulated and validated for useful employee experience.

The current study also interrogates technologies that have been well used by the HR department in the hiring process and effective training process. Some of the technological tools are chatbots, data mining, face recognition and biometrics, virtual assistance, robotics and decision support system, and expert system. The other aspect of AI study is job creation through AI technology which started with resume shortlisting in digital form, followed by mentoring and gathering feedback, and data backup recourse. AI has significant importance in enhancing the importance of HR practices such as acquiring the right talent for the job, document verification, device request and assessing employee skills, ad making suggestions.

## RESEARCH METHODOLOGY

Research methodology is the detailed measures or techniques used to identify and analyze information. The overall validity and reliability of the study can be critically evaluated through the help of research methodology and it is considered the blueprint for the study.

The actual research which encompasses the sources of data, sample size, sampling procedure, scaling techniques, research hypotheses, pretesting, analytical framework, and the choice of appropriate statistical tools for data analysis is employed to draw inferences and interpretations. The hypothesis is derived from the driving force of the research methodology. These hypotheses are formulated based on a systematic review of the relevant literature. It also empowers the researcher to identify the (independent) variables. In the above context, the researcher is also able to find out the dependent)

## SOURCES OF DATA

A well-structured questionnaire was administrated to collect the primary data from the employees of the IT and ITES sectors. Respondents are commonly working in higher divisions in the organisation with the responsibility of human resources management has been selected. Along with the following, attention has also been looked to by the respondent equipped with AI applications in HRM practices.

## SAMPLE AND SAMPLING SIZE

The current study highly focuses on identifying the usage of AI technology in HRM practice in the organisations in Chennai districts. The present study is exploratory and analytical by nature and used a convenience sampling method for data collection. 75 well-designed questionnaires have been circulated among employees of IT and ITES through both Online mode (Google form) and offline mode in and around the Chennai district. 60 responses were received back, out of which 15 responses have been rejected due to their extreme values and mismarked responses. The remaining 60 responses were scrutinised for the current study. The period of the current study is 2021.

## STATISTICAL TECHNIQUES

The data collected were subjected to statistical analysis, and several statistical loots have been adopted through SPSS version 22 and AMOS version 21.

1. Percentage Analysis: Personal character of respondents was significantly analysed through percentage analysis such as Gender, Age, Educational qualification, Marital Status, Work Experience, Designation, Opinion on Usage of Morden

technology for AI, Usage of In-house software, Opinion on software using for the hiring process in the organization and stages of the hiring process.

II. Factor Analysis: The hidden dominant dimension of AI-based HRM Technological tools, Job Creation through AI technology, the Importance of AI in HRM decisions, the Role of AI in HRM, and the Effectiveness of AI in HRM had been identified through factor analysis.

#### LIMITATIONS OF THE STUDY

I. The size of the sample is 560 and the study is restricted to IT and ITES industries within the geographic boundaries of Chennai districts.

II. The analyses are stringently based on AI usage in HRM practices only.

III. The study does not include all levels of management due to the focus on HRM only.

Surbhi Jain (2018) has examined the HRM and AI function in hr in the past used to focus on employee management in organizations but now slowly shifting its attention to developing an organisation that adapts to the constantly changing environment since the change in environment would affect the company in this digital age, AI is reshaping organisations, therefore HR should plan accordingly. AI is a tangible demonstration of machine intelligence in close collaboration with human intellect. To ensure a brighter future, HR needs to educate staff on emerging technology. Transparency has been the norm in the area of human resources; employees may use tools like salary to compare their earnings to those of similar occupations.

Chopal, R., & Garg, U. (2021) based on recent studies in the domain of AI application in the recruitment process, generated a conceptual paper on Artificial Intelligence (AI) application in recruiting process The research attempted to resolve some of the issues about the use of AI in the recruitment process. Based on a thorough examination of recent research articles in this field, it is concluded that there are various benefits for both recruiters and job seekers. AI in recruitment may support a fair, effective, efficient, impartial, and cost-effective recruiting model, hence transforming the HR position and leading to an automated recruitment process. Researchers can conduct further studies to address the human bias in AI algorithms in the future.

#### DEMOGRAPHIC PROFILE

The demographic profile of the AI users shows Gender, Age, Educational Qualification, Marital Status, Designation, Opinion on Usage of Morden technology for AI, Usage of In-house software, Opinion on software used for the hiring process in the organisation, and stages of the hiring process.

#### AI-BASED HRM TECHNOLOGICAL TOOLS

AI-based HRM Technological tools include Chatbots, Face recognition and Bio matrices, Data mining, Big data analytics, Speech and Voice recognition, Virtual Assistance, Automation, Machine, and Natural Language learning, Blockchain, Robotics, Decision Support System and Expert system, and Predictive analytics.

#### JOB CREATION THROUGH AI TECHNOLOGY

Job Creation through AI technology deals with Candidate resumes on smart digital forms, Understanding employee referrals, AI analyzes performance data from a previous referral, Opportunity to impassive employee experience through automating repetitive low-value tasks, freeing up time to focus on more strategic activities, Creative work through AI, Mentoring and gathering feedback, Data backed resources and insight, Measuring employee's sentiment, Basked chat-bot activities of employee's, Boosting learning and development programs, Leveraging transitional workforce data and Powering workforce analytics.

#### IMPORTANCE OF AI IN HRM DECISION MAKING

The importance of AI in HRM decision-making deals with Talent acquisition, Explaining job profiles, duties, and benefits, Relevant and important contacts with the company, Answering frequently asked questions by new employees,

Document verification, Device requesting, Assessing employee skills, and recommendations, Learning programs based on job requirements, Analyse data collected from the year of experience and inform HR which employees need training and in what field, Leverage AI technology with e-learning platforms to enhance employees skills, Cognitive supporting decision making, Leadership, and Administrative tasks.

## OBJECTIVES OF THE STUDY

- I. To examine the demographic profile of the AI users.
- II. To determine the underlying dominant dimension of AI-based HRM Technological tools, Job Creation through AI technology, and the Importance of AI in HRM Decision Making variables.

## DEMOGRAPHIC PROFILE AND OPINION ON USAGE OF AI IN HRM PRACTICE

Percentage analysis has been used to examine the proportion of demographic profiles and opinions on the usage of AI in HRM practice.

Table 1

Personal Profile of AI Users

| Personal Profile                 | Profile Groups                |                              |                                  |                           |
|----------------------------------|-------------------------------|------------------------------|----------------------------------|---------------------------|
| <b>Gender</b>                    | Male<br>298(53.2%)            |                              | Female<br>262(46.8%)             |                           |
| <b>Age Group</b>                 | > 30 Year<br>245(43.8%)       | 30 to 40 years<br>172(30.7%) | 40 to 50 year<br>112(20.0%)      | Above 40 year<br>31(5.5%) |
| <b>Educational Qualification</b> | PG/Professional<br>322(57.5%) | MBA<br>114(20.4%)            | Certificate Programs<br>31(5.5%) | Diploma<br>93(16.6%)      |
| <b>Marital Status</b>            | Single<br>238(42.5%)          |                              | 322<br>(57.5%)                   |                           |

Table 1 shows the gender profile of the AI users, 53.2% of the users are male (298) and 46.8% of the users are female (262). In the age group of the respondent, a maximum of 43.8% of the users are less than 30 years followed by 30.7% of them between 30 to 40 years, 20% of the users between 40 to 50 years, and the rest 5.5% of the users are above 40 years. Regarding the educational qualification of the AI users, a sizable 57.5% of the users are PG/Professional qualified followed by 20.4% of the users are MBA qualified, 16.6% of the users are diploma holders while 5.5% of the users are certificate programs. Regarding the marital status of the AI users, the majority 57.5% of the users are married while 42.5% of the users are unmarried.

Table 2

Job Profile of AI users

| Job Profile              | Profile Groups               |                               |                          |                         |                        |                      |
|--------------------------|------------------------------|-------------------------------|--------------------------|-------------------------|------------------------|----------------------|
| <b>Work Experience</b>   | Less than 1 Yr<br>309(55.2%) | 1 to 2 yr<br>67(12%)          | 2 to 5 yr<br>73(13%)     | 6 to 10 yr<br>40(7.1%)  | <10 Years<br>71(12.7%) |                      |
| <b>Designation Group</b> | Administration<br>42(7.5%)   | Program Analyst<br>188(33.6%) | Automation<br>127(22.7%) | HR Manager<br>98(17.5%) | MD<br>93<br>(16.6)     | Software<br>12(2.1%) |
| <b>Opinion on</b>        | Yes                          | No                            | Ms-Excel                 | DBMS                    |                        |                      |

|                                     |                               |                             |                                     |                             |
|-------------------------------------|-------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| <b>Usage of Morden AI</b>           | 159(28.4%)                    | 104(18.6%)                  | 70(12.5%)                           | 145(25.9%)                  |
| <b>In-House HRM Practice</b>        | In-House<br>372(66.4%)        |                             | Third-Party<br>188(33.6%)           |                             |
| <b>AI usage in Stages of Hiring</b> | Online Assessment<br>21(3.8%) | Video Assessment<br>67(12%) | Entire hiring process<br>372(62.9%) | Other Process<br>120(21.4%) |

Table 2 shows the work experience of AI users, sizable 55.2% number of the users are working for less than 1 year followed by 13% of the users working between 2 to 5 years, 12.7% of the users are more than 10 years of experience, 12% of the users have experience of between 1 to 2 years and rest 7.1% of the users have work experience of between 6 to 10 years. In the designation of the AI users at the workplace, a maximum of 33.6% of the users are working as program analysts followed by 22.7% of them working the automation system, 17.5% of the users are working as HR managers, 16.6% of the users are working as managing director, 7.5% of the users are working in administration and rest 2.1% of the users are working in the software department. The opinion on the usage of Morden AI, 28.4% of the users are prominently using modern AI technology followed by 25.9% of the users are using DBMS AI technology, 18.6% of users are not using modern AI, 14.6% of the users using customer-based AI software and rest 12.5% of the users using normal MS-Excel software. The opinions on the usage of In-House HRM practice, the majority 66.4% of the users use In-house AI software, and 33.6% of the users use Third-Party software for AI usage. The opinion of AI users on AI usage in stages of the Hiring Process, 62.9% of the users using AI during the entire hiring process, followed by 21.4% of the users using AI process on another process, 12% of the users using AI on video assessment and 3.8% of the AI users using for online assessment.

#### DOMINANT DIMENSIONS OF AI-BASED HRM TECHNOLOGY TOOLS (AIHRMTT) VARIABLES

The AI-Based HRM Technology Tools (AIHRMTT) variables have been factorized to determine the latent underlying dominant dimension by applying factor analysis. Factor analysis is served to be a reliable statistical method to bring out the unobserved underlying dimension of AIHRMTT variables. This method is one of the best data-reducing techniques numbers of variables are segregated into dominant dimensions based on the inter-correlation among the variables. Eleven AIHRMTT variables were observed for the factor analysis technique. The eleven AIHRMTT variables have been factorized through the Extraction Method of Principal Component Analysis and Rotation Method of Varimax with Kaiser Normalisation and the results are shown in tables 4.2.1 to 4.2.6.

#### DESCRIPTIVE STATISTICS

Descriptive Statistics are adopted to describe the variables of AI-based HRM Technology Tools which consist of 11 variables. The mean and standard deviation values are used to describe the normality of the data structure and the relative importance of variables. The descriptive scores of each 11 AIHRMTT variables are shown in table.11.

Table 3 Showing Descriptive Statistics of AI-based HRM Technology Tools

| S.no | AI-based HRM Technology Tools     | Mean  | Std. Deviation |
|------|-----------------------------------|-------|----------------|
| 1.   | Chatbots                          | 4.110 | 1.018          |
| 2.   | Face recognition and Bio matrices | 3.850 | 1.023          |
| 3.   | Data mining                       | 4.080 | 0.941          |
| 4.   | Big data analytics                | 3.990 | 0.957          |

|     |   |       |       |
|-----|---|-------|-------|
| 5.  | Speech and Voice recognition              | 4.000 | 0.989 |
| 6.  | Virtual Assistance                        | 3.920 | 0.976 |
| 7.  | Automation                                | 3.920 | 0.935 |
| 8.  | Machine and Natural Language learning     | 4.030 | 0.948 |
| 9.  | Blockchain                                | 3.990 | 0.892 |
| 10. | Robotics                                  | 3.790 | 1.071 |
| 11. | Decision Support System and Expert system | 3.960 | 0.954 |
| 12. | Predictive analytics                      | 4.050 | 0.956 |

Table 3 shows the mean and standard deviation scores of 11 AIHRMTT variables, the mean values are robust values to their respective std. deviation values as all std. deviation values are lower than their respective mean values. This indicates that the AIHRMTT variables are highly consistent and normal. The highest mean value of AIHRMTT was observed for the variable “Chatbots” with a mean value of 4.110 and std. deviation value of 1.018 followed by Face recognition and Bio matrices (M= 3.850, S. D= 1.023), Data mining (M=4.080, S.D= 0.941), Big data analytics (M= 3.990, S. D= 0.957), Speech and Voice recognition(M= 4.000, S. D= 0.989), Virtual Assistance (M= 3.920, S. D= 0.976), Automation(M= 3.920, S. D= 0.935), Machine and Natural Language learning(M= 4.030, S. D= 0.948), Blockchain (M= 3.990, S. D= 0.892), Robotics(M= 3.790, S. D= 1.071), Decision Support System and Expert system (M= 3.960, S. D= 0.954) and Predictive analytics (M= 4.050, S. D= 0.956).

Table 4 Showing KMO and Bartlett's Test for AI-based HRM Technology Tools

|   |                                      |                |
|---|--------------------------------------|----------------|
| <b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b> |                                      | 0.932          |
|   | <b>Approx. Chi-Square</b>            | 4115.937       |
|   | <b>df</b>                            | 66             |
|   | <b>Bartlett's Test of Sphericity</b> | <b>P-value</b> |

Table 4 reveals that the KMO measure of sampling adequacy is recorded as 0.932 which is more than the threshold value of 0.600, hence the KMO value of 0.932 indicates factor analysis can be applied to 12 AI-based HRM variables. The KMO value also explicates a strong reflection of sampling adequacy for the present data set.

Similarly, Bartlett’s test of sphericity was used to examine the appropriateness of the data for factor analysis. This table shows that the test value of 4115.937 is highly significant (P<0.000). Hence the data is strongly fit for the factorization of 12 AIHRMTT variables.

To reduce 12 AIHRMTT variables into dominant factors principle component analysis method has been used. To further establish the suitability of factorization of AI-Based HRM Technology Tools variables, communalities, and measuring of sampling adequacy were considered. The results are depicted in table 2.2. The nine variables relating to AI-Based HRM Technology Tools have been brought out into three latent dominant factors, which explains 70.865% of the total variance in those 12 AIHRMTT variables. The three latent dominant factors are namely F1, F2, and F3. All these factors have been determined with new names such as Machine Language and Automation Factor (MLAF), Data Analytics and Acknowledgement Factor (DAAF), and Robotics and Bio Recognition Factor (RBRF) which are shown below tables.

Table 5 Showing MSA and Communalities of AI-based HRM Technology Tools

| S.no | AI-based HRM Technology Tools             | MSA   | Communalities |
|------|---|-------|---------------|
| 1.   | Chatbots                                  | 0.937 | 0.644         |
| 2.   | Face recognition and Bio matrices         | 0.899 | 0.777         |
| 3.   | Data mining                               | 0.927 | 0.618         |
| 4.   | Big data analytics                        | 0.909 | 0.745         |
| 5.   | Speech and Voice recognition              | 0.921 | 0.706         |
| 6.   | Virtual Assistance                        | 0.969 | 0.612         |
| 7.   | Automation                                | 0.938 | 0.726         |
| 8.   | Machine and Natural Language learning     | 0.938 | 0.788         |
| 9.   | Blockchain                                | 0.944 | 0.744         |
| 10.  | Robotics                                  | 0.907 | 0.772         |
| 11.  | Decision Support System and Expert system | 0.939 | 0.704         |
| 12.  | Predictive analytics                      | 0.945 | 0.667         |

Table 5 shows communalities that reveal the amount of variance of each AIHRMTT variable that contributed to the identification of the total variance of factors that determines AIHRMTT. The communality and MSA value of higher than 0.400 is measured adequately for factor analysis. The MSA value are ranging between 0.899 to 0.969 and the communalities values are ranging from 0.612 to 0.788. Both the MSA and Communalities are more than the threshold limits, therefor factor analysis can be applied to those 12 AIHRMTT variables.

Table 6 Showing Machine Language and Automation Factor (MLAF)

| S.no | MLA Factor                            | Factor Loading | Eigen Value | Variance Explained |
|------|---------------------------------------|----------------|-------------|--------------------|
| MLA1 | Machine and Natural Language learning | 0.801          | 2.872       | 23.930%            |
| MLA2 | Automation                            | 0.709          |             |                    |
| MLA3 | Virtual Assistance                    | 0.632          |             |                    |
| MLA4 | Predictive analytics                  | 0.573          |             |                    |

Table 6 shows Machine Language and Automation Factor (MLAF) is the predominant and most important factor of AIHRMTT consisting of four statements with factor loading namely, Machine and Natural Language Learning (0.801), Automation (0.709), Virtual Assistance (0.632), and Predictive Analytics (0.573). These four variables together explain 23.930% of the variance in MLAF variables with an Eigenvalue of 2.872. it can be identified that among four MLAF variables “Machine and Natural Language Learning” is the most important MLAF.

Table 7 Showing Data Analytics and Acknowledgement Factor (DAAF)

| S.no | DAA Factor                   | Factor Loading | Eigen Value | Variance Explained |
|------|------------------------------|----------------|-------------|--------------------|
| DAA1 | Big data analytics           | 0.816          | 2.833       | 23.607%            |
| DAA2 | Speech and Voice recognition | 0.678          |             |                    |
| DAA3 | Data mining                  | 0.671          |             |                    |
| DAA4 | Chatbots                     | 0.628          |             |                    |

Table 7 shows Data Analytics and Acknowledgement Factor is the second dominant and most important factor of AIHRMTT consisting of four statements with factor loading namely, Big data analytics (0.816), Speech and Voice Recognition (0.678), Data mining (0.671), and Chatbots (0.628). These four variables together explain 23.607% of the variance in DAAF variables with an Eigenvalue of 2.833. it can be identified that among four DAAF variables “Big data analytics” is the most important DAAF.

Table 8 Showing Robotics and Bio Recognition Factor (RBRF)

| S.no | RBR Factor                                | Factor Loading | Eigen Value | Variance Explained |
|------|---|----------------|-------------|--------------------|
| RBR1 | Robotics                                  | 0.838          | 2.799       | 23.328%            |
| RBR2 | Face recognition and Bio matrices         | 0.753          |             |                    |
| RBR3 | Blockchain                                | 0.635          |             |                    |
| RBR4 | Decision Support System and Expert system | 0.610          |             |                    |

Table 8 shows Robotics and Bio Recognition Factor is the third dominant factor of AIHRMTT consisting of four statements with factor loading namely, Robotics (0.838), Face recognition and Bio matrices (0.753), Blockchain (0.635), and Decision support system expert system (0.610). These four variables together explain 23.328% of the variance in RBRF with an Eigenvalue of 2.799. it can be identified that among four RBRF variables “Robotics” is the most important RBRF.

## MAJOR FINDINGS

I. The gender profile of the AI users, 53.2% of the users are male (298) and 46.8% of the users are female (262). In the age group of the respondent, a maximum of 43.8% of the users are less than 30 years followed by 30.7% of them between 30 to 40 years, 20% of the users between 40 to 50 years, and the rest 5.5% of the users are above 40 years. Regarding the educational qualification of the AI users, a sizable 57.5% of the users are PG/Professional qualified followed by 20.4% of the users are MBA qualified, 16.6% of the users are diploma holders while 5.5% of the users are certificate program. Regarding the marital status of the AI users, the majority 57.5% of the users are married while 42.5% of the users are unmarried.

II. Regarding The work experience of AI users, a sizable 55.2% number of the users are working for less than 1 year followed by 13% of the users working between 2 to 5 years, 12.7% of the users more than 10 years of experience, 12% of the users have experience of between 1 to 2 years and rest 7.1% of the users have work experience of between 6 to 10 years. In the designation of the AI users at the workplace, a maximum of 33.6% of the users are working as program analysts followed by 22.7% of them working the automation system, 17.5% of the users are working as HR managers, 16.6% of the users are working as managing director, 7.5% of the users are working in administration and rest 2.1% of the users are working in the software department.

III. The opinion on the usage of Modern AI, 28.4% of the users are prominently using modern AI technology followed by 25.9% of the users are using DBMS AI technology, 18.6% of users are not using modern AI, 14.6% of the users using customer-



based AI software and rest 12.5% of the users using normal MS-Excel software. The opinions on the usage of In-House HRM practice, the majority 66.4% of the users use In-house AI software and 33.6% of the users use Third-Party software for AI usage. The opinion of AI users on AI usage in stages of the Hiring Process, 62.9% of the users using AI during the entire hiring process, followed by 21.4% of the users using AI process on another process, 12% of the users using AI on video assessment and 3.8% of the AI users using for online assessment.

IV. 12 AIHRMTT variables into dominant factors principle component analysis method has been used. To further establish the suitability of factorization of AI-Based HRM Technology Tools variables, communalities, and measuring of sampling adequacy were considered. The results are depicted in table 2.2. The nine variables relating to AI-Based HRM Technology Tools have been brought out into three latent dominant factors, which explains 70.865% of the total variance in those 12 AIHRMTT variables. The three latent dominant factors are namely F1, F2, and F3. All these factors have been determined with new names such as Machine Language and Automation Factor (MLAF), Data Analytics and Acknowledgement Factor (DAAF), and Robotics and Bio Recognition Factor (RBRF)

V. Machine Language and Automation Factor (MLAF) is the predominant and most important factor of AIHRMTT consisting of four statements with factor loading namely, Machine and Natural Language Learning (0.801), Automation (0.709), Virtual Assistance (0.632), and Predictive Analytics (0.573). These four variables together explain 23.930% of the variance in MLAF variables with an Eigenvalue of 2.872. it can be identified that among four MLAF variables “Machine and Natural Language Learning” is the most important MLAF.

VI. Data Analytics and Acknowledgement Factor is the second dominant and most important factor of AIHRMTT consisting of four statements with factor loading namely, Big data analytics (0.816), Speech and Voice Recognition (0.678), Data mining (0.671), and Chatbots (0.628). These four variables together explain 23.607% of the variance in DAAF variables with an Eigenvalue of 2.833. it can be identified that among four DAAF variables “Big data analytics” is the most important DAAF.

VII. Robotics and Bio Recognition Factor is the third dominant factor of AIHRMTT consisting of four statements with factor loading namely, Robotics (0.838), Face recognition and Bio matrices (0.753), Blockchain (0.635), and Decision support system expert system (0.610). These four variables together explain 23.328% of the variance in RBRF with an Eigenvalue of 2.799. it can be identified that among four RBRF variables “Robotics” is the most important RBRF.

## CONCLUSION

The profile of the AI users shows sizable AI users are young males with PG and

professional qualifications, most of them have less than 1 year of working experience,

working as program analysts, a sizable number of them are using In-House AI applications for HRM practice. majority of AI users use AI applications the entire hiring process. 12 AIHRMTT variables into dominant factors. The nine variables relating to AI-Based HRM Technology Tools have been brought out into three latent dominant actors, which explains 70.865% of the total variance in those 12 AIHRMTT variables. The three latent dominant factors are namely F1, F2, and F3. All these factors have been determined with new names such as Machine Language and Automation Factor (MLAF), Data Analytics and Acknowledgement Factor (DAAF), and Robotics and Bio Recognition Factor (RBRF). A significant difference between the perception of both married and unmarried respondents in AI-based HRM Technology Tools has been identified. The mean score in AI-based HRM Technology Tools shows unmarried respondents have higher command over AI-based Technology Tools compared to the married respondent.

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