



RESEARCH ARTICLE

Application of artificial intelligence on human resource management in information technology industry in India

Seema Bhakuni

Abstract

Artificial Intelligence is a term for a technology that is used to do a job that needs intelligence. It is a technology designed to do what a person could do. Today's organizations have changed a lot because of artificial intelligence. Not just one part of the organization but all of its functions and how it affects human resource management must be looked at separately, especially since this is where most people work. This study looks into how artificial intelligence can handle human resources in India's Information Technology (IT) business. This study looks at what makes AI-driven HRM practices in the Indian IT business work the way they do. The researcher has collected secondary sources like journal articles, study papers, dissertations, and reports from different IT companies related to AI in HR. Information is gathered from individuals who work in IT organizations' human resources offices. The results show that artificial intelligence is young regarding recruitment, and only a few companies use it for human resource management. The main benefits of AI are speed, quality, and the removal of routine jobs. On the other hand, the biggest problem is that businesses are only sometimes ready for new technologies.

Keywords: Human resources management, Artificial intelligence, Information technology, HRM application, Information technology industry.

Introduction

Technology has always been a great tool that improves and strengthens people, raises living standards, opens new paths, supports worker imagination, and makes the workplace fairer for everyone (Zeba *et al.*, 2021). In the current world, it is hard for control firms to do what they have always done. Not only are there few rivals, but businesses also have to fight all the time on a world scale. As a result, new technologies lower the amount of damage done to the environment. Companies must keep up with new and changing innovations to stay competitive. Human resources include hiring, training, learning and moving up, managing success, and company growth (Gary, 2011).

Because of their knowledge and skills, people are essential to any company's strategic goals and aims. So, it's important to focus on hiring the right people and training

them to improve their skills. Human resource management is essential to the growth of any company because it is in charge of finding and keeping the best people for each job. Companies use traditional human resource management processes for hiring, training, and evaluating employee performance. This meant that all entries had to be made by hand, a lot of data had to be kept on paper, and routine and tedious tasks had to be done (Snell & Morris, 2022).

Because of this, many businesses started to use the growth of online HRM processes over time. Large groups also develop and try new ways to handle their people resources. In the past few years, few studies have looked into the problems of human resource management (HRM) and technology that can be fixed or improved by technology, such as hiring, growth, and success reviews (Armstrong & Taylor, 2020). The HRM business is currently focused on making technologies that make automatic processes safer and more efficient. In some older works, it is also often said that technology makes connecting harder for people. This part talks about one of the newest technologies. This study looks at HRM basics, focusing on recruiting, planning, learning, and development, evaluating success, and the future of HRM with the help of artificial intelligence (AI) (Acikgoz, 2019).

Information Technology Industry in India

"Information technology" (IT) refers to the methods and tools used to create, gather, process, store, and share

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information throughout its life cycle. Think of each of these methods and tools as a tool that, when used, makes our lives better or our jobs easier (Subramanian, 2006). Every day, more and more things can be done with the help of information technology. For example, computers were only used in the artistic process for a short time in the film and picture businesses. Today, you can find computers in places like cameras, processors, and post-production labs. We will always have to deal with information technology, no matter what we learn or do for a job (Dutta *et al.*, 2015).

Here are the Bare Essentials of How IT Works

With the help of IT, data can be turned into information that can be used. Think about how much work you have for Thoughts University. The total number of grades only tells you a little. There's always a chance that we'll be sick on the day of a test or fall behind in the current course. This term, our test marks will be all over the place, from A+ to F. Each comprises just one piece of essential info. The information in these numbers can be found in their grade in the subject in question. This grade will tell us how we did in the class so it will be helpful. The teacher will soon decide whether we did well in this class (Ugargol & Patrick, 2018).

Information technology makes it possible to reuse data that has already been handled. For example, processed data could be mixed with data that has yet to be processed to make it more valuable. A student's grade point average (GPA) is calculated by averaging the grades from all of their classes. This is helpful knowledge because our end number is based on hundreds of data points, the tests we have taken (Arora & Rahman, 2017).

Using technology, information can be shown in a new way, making it easier to find, more interesting, or more useful. We can quickly see how our GPA compares to our peers by putting their GPAs in descending order or drawing a line with them (Ahmed *et al.*, 2018).

Information technology's growth was hidden from the public for a decade, but now it's all over the news. It makes me think of a big wave building up far out at sea. Information technology will change our daily lives in many ways in the future. If we were Rip Van Winkle in the present day, we would have spent the last few years sleeping well. We were met with scientific terms we didn't know and new problems when we woke up (Jorgenson, 2005). Recently, there have been many changes in the IT industry. Not too long ago, people used electrical or mechanical tools like typewriters, computers, and phones to process information alone, as if they were on their information processing islands. All numbers that were done on a computer had to be written down (Bresnahan, 2003). The papers then had to be rolled by handcar to a printer. Secretaries had to answer calls at any time. The only way to talk that is okay is through writing. A computer chip runs most of the functions of these tools and processes today. But tools aren't the only thing that

has changed because of technology. The biggest change has been the arrival of digital roads, which have made it possible to connect once-separate information hubs (Sung, 2007). Text, music, photos, animation, and moving pictures are just some forms into which information can be instantly moved or changed after it has been made. There are written and spoken words, still and moving pictures, cartoons, and movies, among other things. Because of how quickly technology is changing, something that used to be in different categories, like radio, TV, phones, and computers, are slowly coming together. You can quickly switch between the hundreds of digital TV stations that show news, entertainment, and shopping ads. But this is just the beginning of a massive wave of technological progress that will become clear as new information emerges. To be ready for this new wave at home and in business, we need to know how digital information technology works and how to use it in real life (Gupta & Basole, 2020). China and India, the world's two most significant and fastest-growing economies, have had 7 to 8% growth rates over the last five years. The middle class and service businesses in India, especially those related to technology, are growing at a rate that has never been seen before. China's economy has significantly increased, thanks mainly to its manufacturing business. Services make up more than half of India's GDP right now. India's economy has gone from being based on farming to being based on services (Huang & Khan, 2022).

On the other hand, most of the Western world went from farming to making things and then to providing services. Western companies' outsourcing information technology (IT) jobs, especially in the US, has been a big reason why the service industry has been increasing in recent years. Companies in the United States have been outsourcing their IT teams for a long time to save money and get better IT services. At first, most outsourcing contracts went to companies in the United States. IBM, EDS, and HP are a few big US IT companies that have become essential players in the US IT outsourcing market. Other prominent US consulting firms like Accenture, Deloitte Consulting, and Keane are also in this market. Most of the IT outsourcing contracts went to these primarily local businesses (Gross & Poor, 2008). Because of many things, the second half of the 1990s saw a lot of new competitors from all over the world. Growing globalization and the opening of economies around the world are just two of the many things that have led to this shift. Improvements in telecommunications technology, the Internet boom that followed, and a massive rise in the number of people using the Internet worldwide are also examples (Miozzo & Grimshaw, 2011).

Because of these factors, countries like China, India, the Philippines, and Eastern European countries, home to about 3 billion people, or half of the world's population, had the chance to do outsourcing. Many people had graduate degrees in science, technology, engineering, and math in

these countries. By using Western technology, people could move quickly into the information age and give American companies, which were getting most of the outsourcing contracts, a hard time. They could do this because they used technology made in the West (Giovino *et al.*, 2012).

Human Resource Management

Human Resource Management is a way to find people, prepare them, choose the best one, evaluate the overall results, pay them, keep relationships going, see plans for their health, fitness, and safety, and make sure they do their jobs according to standards that everyone agrees on. Most of the handling of valuable human resources is about managing people (Bratton *et al.*, 2021). It is a trait of companies considered in the context of an employer's strategic goals to improve the general effectiveness of a job. HR is mostly about how businesses manage their people resources, focusing on rules and processes (Mathis *et al.*, 2016).

In most organizations, the HR department is responsible for various tasks, such as designing employee perks, finding people, helping employees learn and grow, evaluating employees, and giving out awards and compensations (Gary, 2011). HR managers can focus on one part of human resource management, like hiring, training, employee families, or perks. The job of hiring directors is to find and hire the most suitable individuals. Learning and development professionals ensure their workers have finished their schooling and are growing in their careers. This is done through services that fit the curriculum, total success evaluations, and reward programs (Stewart & Brown, 2019).

Human resource management is one of the most essential parts of a modern business. This is because the organization's goals can only be reached with the help of its workers. If the workers don't want to work, it doesn't matter how well the job is planned and managed or how advanced the equipment is; management won't be able to reach the goals. It is essential to handle the workers well to build a team of workers who work well together (Stone & Deadrick, 2015).

In almost all companies, this is the job of the human resources department.

- The people who work for a company are its most important asset. They have a lot of money to put into investments. The more a company spends on its workers, the more it can expect to get back (Siddique, 2004).
- The best way to think about HRM is as a closed-loop device. It comprises several parts or units that depend on each other and need specific inputs or triggers from the outside world to produce particular reactions or outputs (Gary, 2011). The system is considered closed when the control action that moves information from the results back to the inputs so that it can be used for more inputs happens. HRM factors include the

organization's goals and objectives, plans, policies, procedures, organizational structure, communication, award and decision-making processes, and duties (Miles & Snow, 1984).

Artificial Intelligence

John McCarthy came up with the word "cybernetics" in 1956. It means "the study and mechanics of intelligent machinery." It compared clever robots to "the computational aspect of the ability to achieve goals in the universe." Artificial Intelligence has come a long way in predicting the weather and making gadgets that can be controlled by voice. A rule set for machine learning is the basis for tasks so complicated that they give rise to artificial intelligence (Jiang *et al.*, 2022).

History of artificial intelligence

The past of AI is exciting and full of key events and findings that changed the game and helped move the field forward.

Let's look back at the most critical events in the history of AI.

- In 1956, scholars met at Dartmouth College to discuss whether it would be possible to make "thinking machines." This is the start of the actual study of artificial intelligence in university circles (Kaul *et al.*, 2020).
- Studies of AI began in the 1960s. Scientists working on artificial intelligence made the first computer systems that could think and make decisions during this time.
- "Expert systems" were made in the 1980s. These computer programs try to make decisions like experts in a certain field. In the 1980s, these traits were used for the first time on a large scale (Newell, 1982).
- Machine learning is a type of AI that teaches computers to learn from given data. It was first used in the 1990s. Machine learning started in this decade.
- In the 2000s, natural language processing (NLP) made it possible for machines to talk like people and understand what people say.
- The 2010s were a pivotal time for education. The study of "deep learning," a branch of machine learning, is defined by using deep neural networks. This decade saw a lot of progress in deep understanding, which led to new ideas in areas like computer vision and speech recognition (Wilks, 2023).
- In the 2020s, AI will be part of everyday life - AI is part of everything we do daily, from virtual personal helpers to self-driving cars. This is likely to keep going well into the 2030s.
- AI is where it is now because of these essential points in its history. They will also continue to set the stage for its growth in the future. In the years to come, AI is expected to significantly affect our world (Wilks, 2023).

The current state of artificial intelligence

Thanks to its rapid growth and growing use, AI is changing many fields, from healthcare and banking to shopping and

transportation. In AI, technologies like machine learning and deep learning simplify processes, improve the way decisions are made, and make the user experience more personal for the end user. With the help of these technologies, new AI technologies are being made (DiGiorgio & Ehrenfeld, 2023).

- Because AI is improving, people are making new, ground-breaking products and services. Laws that ensure AI is used responsibly and decently are becoming more popular, but people still need to figure out how AI will affect jobs and the right to privacy (King & ChatGPT, 2023).
- Natural language processing (NLP), computer vision (CV), and machine learning (ML) are three areas of AI that have made a lot of progress in the past few years. The popularity of clever personal helpers like Siri and Alexa has made people more aware of AI. Its growing use in healthcare, finance, and shopping has shown usefulness (Sandeep *et al.*, 2022).
- New AI methods have made a big difference in automated systems in the last few years. Self-driving cars, drones, and robots are all autonomous systems being assembled and tested right now. Even though they have many possible benefits, some people worry about their security and the chance that they could be abused.
- As AI has improved, questions about ethics and the law have come up, along with worries about job loss and AI being used in bad ways. Because of the growth in artificial intelligence, these problems and worries have come up. In order to handle these worries, many groups and countries are now working on ethical models for the growth of AI (Haleem *et al.*, 2022).
- At the moment, the field of artificial intelligence is making fast progress, is widely accepted, and has a lot of opinions about what it means and where it will go in the future (Nallamotheu & Bharadiya, 2023).

Most important AI trends for 2023

Here are some of the most important things that will happen in artificial intelligence in 2023.

- AI's use in health care is expected to keep growing quickly until at least 2023. AI-based algorithms are used in healthcare to improve care, cut costs, and speed up the whole system. Artificial Intelligence is changing the healthcare business in many ways, such as using virtual helpers, predictive analytics, and personalized care. Another example is the use of gadgets that have AI built in (Kumar *et al.*, 2023).
- Developments in autonomous systems are increasingly used in industries like transportation, manufacturing, and shipping. We might see more progress in the building of self-driving systems in 2023. Cars that drive themselves, planes that don't need a pilot, and robots are all examples of these systems (Burger *et al.*, 2023).

- The creation of cutting-edge AI Edge AI refers to AI programs that run locally on devices like phones, computers, and Internet of Things (IoT) devices instead of in the cloud. Due to the growing need for real-time processing and minor delay, AI will likely keep getting better at the edges until 2023. This means that secret information doesn't have to be sent to the cloud to be processed, which helps privacy and speed (Velander *et al.*, 2023).

Human Resource Management and Artificial Intelligence

HR workers today try to make the most of how humans and machines work together to create a simple, organized, and easy-to-use work environment. It gives candidates and workers time to use their creativity, knowledge, and understanding to make the experience pleasing. The HR process may be hard to understand, involve a lot of repetition, and leave room for mistakes and misunderstandings. AI and human-machine duplication transactions AI technology have been made to help humans handle complicated and tedious jobs in a wide range of areas (Chowdhury *et al.*, 2023).

AI has grown leaps and bounds in the past ten years, making it necessary to solve many complex market problems, such as HRM. Implementing key AI ideas like expert programs, machine learning, and processing of natural languages and patterns has led to a better understanding of the software tools used in all HRM processes to find, train, and hire workers (Rodgers *et al.*, 2023). The meaning of "artificial intelligence" is broad, complicated, and constantly changing. AI is creating more and more possibilities in several HRM areas, such as finding talent, evaluating applicants, keeping employees, and helping them grow (Vrontis *et al.*, 2022).

How is Artificial Intelligence used in the Hiring?

Using a new AI-based tool for offering jobs, a company's resume information is sorted to give the interviewer a list of suitable candidates. Fewer, more advanced tools provide many advanced features by checking social platforms often and adding potential profiles that match the recruiter's set keywords (Basu *et al.*, 2023). This is taken care of by the application tracking system. These apps use search and matching algorithms to look at thousands of resumes. The process is shown with the help of Figure 1 how AI-based recruitment process works.

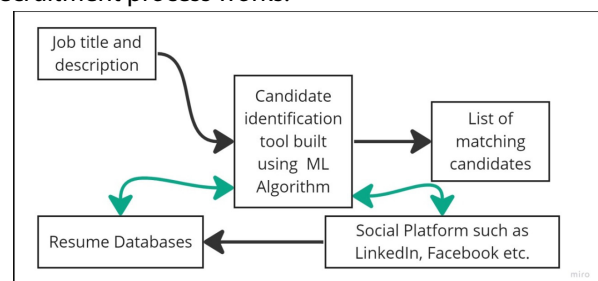


Figure 1: AI-Based recruitment process (Peña *et al.*, 2023)

Tools for Recruiting People that use Artificial Intelligence

There is now a whole new market for marketers and the jobs they do.

Job aggregator software

This software interface makes it easy for managers to look for job openings on different websites and blogs and put them all on one page. The main goal of a program like this is to find and put together a list of all the available jobs on the web so that the right number of suitable people can apply for this open position. Standard websites for work organizers are made by reputable companies using more advanced forms of this software. Work brokers are websites where HR agents post their open jobs. They also write job postings so that the job broker website can tell you about it and post it on the blog. The data analytics found on these career broker platforms are beneficial for managers who need to fill highly technical job openings with few suitable prospects (Senapati *et al.*, 2023). The program for the career aggregator collects job posts from all over the Internet and puts them in a list of filters that job seekers can use to find what they are looking for.

Applicant Tracking Software (ATS) tool

Figure 2 describes the working methodology of the ATS tool. ATS stands for applicant tracking system and refers to a piece of software that is utilized by recruiters and marketers equally during the recruiting process. This software's automation and AI-based technologies allow administrators to complete their tasks more swiftly and precisely. A system known as an application tracking system (ATS) enables recruiters and other individuals responsible for employment to keep track of all applications without making the process more laborious. When using applicant tracking systems (ATS), managers can improve their recruiting processes and save time and money relative to their competitors (Abuladze & Hasimi, 2023).

Most applicant tracking systems (ATS) allow you to personalize each stage of the recruiting process and encourage you to use them in emails and other tools to

boost the productivity of your recruiters and the efficiency of your organization. ATSs enable recruiters and human resource administrators to view the same information simultaneously. This includes the number of applications received, where candidates stand in the application process, and other pertinent information. Because they consolidate all of an employee's personnel data in a single location, applicant tracking systems (ATSs) almost always make it simpler for businesses to comply with EEOC regulations (Horodyski, 2023). Therefore, marketing and purchasing technology professionals have discovered that ATS products are highly advantageous. As elaborated in Figure 3 there are systematic steps how an application is tracked, screened and selected.

Training and Artificial Intelligence

AI is vital to how a new employee is found, hired, and brought into a company. It is also crucial to how skills training and personal growth programs are given. Most traditional learning systems offered long-form training, like PowerPoint slideshows, classroom training, etc., as eLearning material. Also, determining the learning effect and calculating the return on investment (ROI) has always been the most annoying part of L&D (Liaw *et al.*, 2023). Collecting and analyzing data takes a lot of time, and the results must often be corrected. Artificial intelligence doesn't have any preferences or biases, and it only uses data to make ideas that are most relevant to the overall goals of the association (Chao *et al.*, 2023).

The use of AI in training would be a big trend in the HR technology field. AI would be used as a place to learn and grow. AI is becoming increasingly crucial to HR technology companies as they try to build it into every system for handling human capital. It gives everyone a reason to use AI to construct a strategic framework for learning and growth. AI makers take a conscious approach to teaching, education, and development within an enterprise's dynamic mix of technologies, processes, and business principles. HR technologies will make this change more accessible and efficient for TLD programs (Perchik *et al.*, 2023). HR teams must coach and grow people individually to handle their assets and skill gaps well. People think traditional L&D methods for business-focused tasks are time-consuming, expensive, and useless. TLD teams can use AI to create

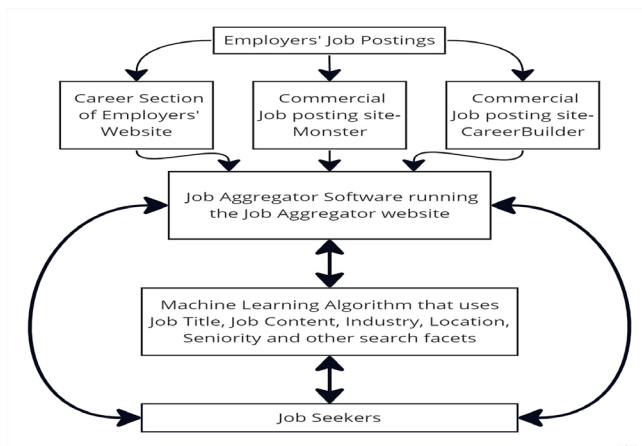


Figure 2: Job aggregator site

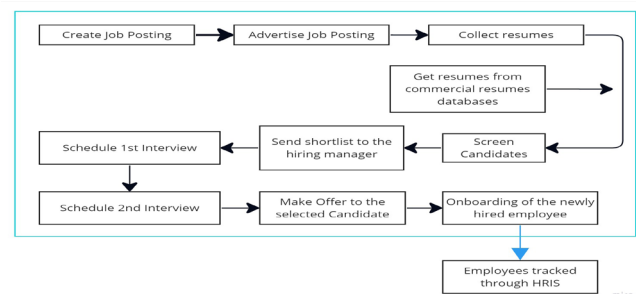


Figure 3: Applicant tracking system

engaging learning settings that workers can access anytime from any device (Upadhyay & Khandelwal, 2022).

Process of Training using Artificial Intelligence

The use of AI in training would be a big trend in the HR technology field. HR technology inspires us to use AI to create a planned method for learning and growth. AI writers tend to take a conservative approach to training, education, and development through the enterprise's dynamic mix of technologies, processes, and company principles (Wangla *et al.*, 2022). Installing staff apps and identification data is part of the AI-driven training process if a company has the means to compete and wants to be on the cutting edge of technology. Before the employee even thinks about getting learning materials, the robot would already have a collection of information to help with a coming job (Maity, 2019).

Different Artificial Intelligence Training Methods

Customizing the learning experience

Complementing the vast quantity of incoming employee data with an in-depth study, artificial intelligence facilitates the development of personalized learning initiatives (Schneider *et al.*, 2018).

Online mentoring

Online trainers employ AI techniques to monitor the progress of students' progress and analyze many mental phases of the student's voyage through instruction by approximating domain awareness and, if feasible, revising the curriculum. This structure will also provide feedback and education, improve learning efficiency, and suggest individualized educational programs for students (Ensher *et al.*, 2003).

Superior analytical capabilities

After compiling and analyzing this information, L&D leaders will reverse crucial insights into cost planning and the growth and retention of learners. Thus, system deficiencies can be re-evaluated and rectified (Gupta & George, 2016).

Method for Evaluating Performance using Artificial Intelligence

Artificial intelligence improves performance review tasks and progressions. Think about the following reasons why using AI in performance management is a good idea. Performance management, also called "monitoring employee performance," is the set of tools and processes used to look into data about an organization's or application's performance to find problems and figure out how to fix them (Athanassopoulos & Curram, 1996). When performance review chores are automated, an audit trail or audit record of the actions is created. This makes it possible to hold the employee or boss responsible (Paschalidou *et al.*, 2011).

Since the final performance review process is done on a computer, top managers have a better idea of what's

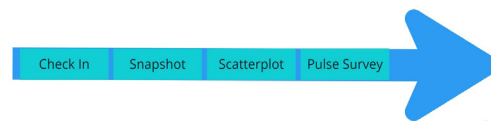


Figure 4: Method for evaluating performance using artificial intelligence (Fethi & Pasiouras, 2010)

happening. Also, HR managers can help resolve conflicts and discover where they came from by going into the HR server and reviewing the complaint records. Also, staff will be able to log in and get to the paper on their own, which will make the process more transparent. In case of a lawsuit or jail time, the complete log of events from the HR site will be used as proof for the company in court. One-third of the incidents will also have access to the HR web system. This can be helpful for the investigators when there are multiple events or when they are trying to figure out who is at fault, especially during internal investigations. The whole process of reviewing general success can be driven automatically by data, making it scientific and thorough.

As shown in the Figure 4, the first check-in phase is started by a team member and involves frequent conversations between a team member and the boss that focus on the future. A team member creates the second phase picture, and the leader finishes it. A snapshot is the team commander's quick assessment of how a team member is doing. In the third phase, you need at least three finished performance data in order to see a scatter plot. A worker can pick out the behavior in the scatter plot. The scatter plot stage gives employees a regular look at their performance and lets them track their progress toward the goal. The fourth phase is for the team leader to start and finish a pulse poll. A pulse poll is a short quiz that gives team leaders information about how well the team is doing and how engaged the team is (Yeziro *et al.*, 2008).

Research Methodology

In this part of the research methodology, we look at the research design, the data source, and the pilot study. It will talk about the way the research was done, like how and why the group was picked from the study community. In this study, the methods for collecting and analyzing data, as well as their reasons, are talked about. It depends on how the study was set up, how long the survey was, how the data was collected, and how many people took the poll.

Research Design

A general outline of a study plan is a plan. A thorough overview, on the other hand, is a structure. Research planning is how scientific studies are done and how data are collected and analyzed. The study's goal is to find out "who, when, why, where, and how" The primary purpose of the study was to understand how a group of a specific community behaves so that forecasts can be made. The relationships between the factors can be found.

A survey was used to learn about the sample's traits and how the selection felt about the research model. This study examines how AI can be used in human resource management. It focuses on recruiting, training, evaluating performance, problems and possibilities, and the future of AI. This study aims to determine if there is a link between the use of AI in human resource management and the IT business in India. To do this, a Likert scale poll will be sent to HR IT workers for their opinion. Figure 5 describes the research design used for this purpose.

Source of Data

The researcher has collected secondary sources like journal articles, study papers, dissertations, and reports from different IT companies related to AI in HR. On the other hand, information was gathered from individuals who work in IT organizations' human resources offices. It is further elaborated with the help of Figure 6.

Primary data

The primary data are further split into qualitative and quantitative components. Qualitative data is gathered through online chats with open-ended questions. Quantitative data is information collected through a poll with a closed-ended questionnaire.

Secondary data

The secondary data source was compiled from articles published in relevant technical and management journals and periodicals. Internet-based articles, newspapers, and other sites have also contributed to the secondary data source by providing additional insights. Also considered were peer-reviewed articles and other published works in this and related/related fields.

Research Model

Find out the possibilities for human resource management with artificial intelligence and how it will affect recruiting, training, performance review, and the future of AI-based human resource management. It is further defined with the presentation of Figure 7.

Pilot Study

The reliability and adequacy of the instrument created specifically for this study were evaluated beforehand. During the pilot study period, approximately 30 respondents were contacted, the straightforward questionnaire on the readability, understandability, and appropriateness of each item was demonstrated to HR managers/experts and employees, and the time required to complete the questionnaires was determined. Simultaneously, the preliminary questionnaire was discussed. These discussions helped shape the final questionnaire, which received 100 responses. This pilot study's variables were subjected to a Cronbach alpha reliability analysis. The table displays Cronbach Alpha test results (Barbera *et al.*, 2020).

The evaluation of reliability was conducted in response to the pilot report. As the maximum of 100 answers is reached and the demographic profile was initially extracted from the survey's characteristics, the limit of 100 responses has been reached. In addition, Cronbach's alpha test was used to evaluate the reliability of the data. Cronbach alpha ≥ 0.70 indicates that the sample data are reliable and have internal consistency (Amirrudin *et al.*, 2021).

The pilot study results were divided into the following two sections:

Section I: Demographic profile:

Determine the demographic characteristics of the sample size for the pilot project.

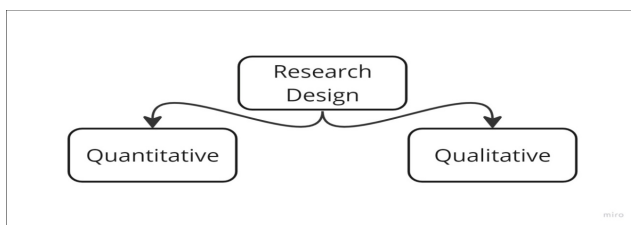


Figure 5: Research design

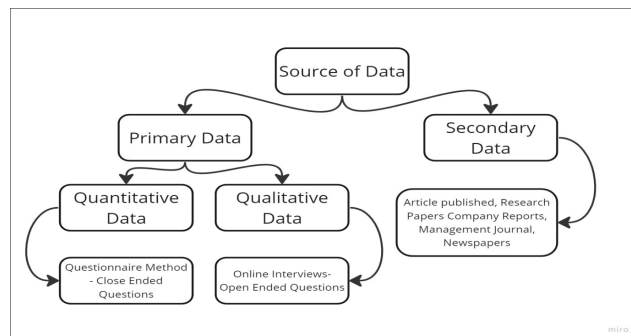


Figure 6: Source of data

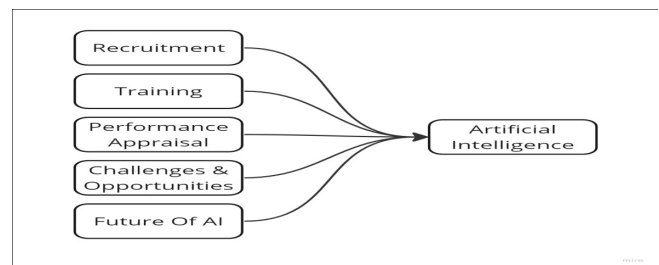


Figure 7: Model of conceptual research

Table 1: Gender-specific sample attributes

Gender	Frequencies	(Percent) %	Percent of validity	Cumulative percent
Male	40	40.00	40.00	40.00
Female	60	60.00	60.00	100.00
Total	100	100.00	100.00	

(According to primary data)

Section II: Reliability statistics:

To determine the data's internal consistency.

Section I: Demographic profile

According to the Table 1 mostly are female respondents (60.0%), whereas only 40.0% are male. Which are working primarily in human resource management for IT-based enterprises?

In Table 2 the mainstream of respondents (65%) are flanked by the ages of 25 and 35, followed by those among the ages of 35 and 45 (30%), and finally the senior age group (5%).

It is essential to examine the Table 3 which reveals that approximately 71.0% of respondents had a master's degree, about 28.0% had a bachelor's degree, and about 1.0% had a doctorate.

Intriguingly, 42.0% of the population has more than nine years of professional experience, according to the Table 4 the respondents with between three and six years of professional experience account for 21%. The final group of respondents consists of those with 0 to 3 years of experience in the workforce (18.0%), followed by those with 6 to 9 years of experience (19.0%).

Table 2: Age-wise specific sample attributes

Age (Years)	Frequencies	(Percent) %	Percent of validity	Cumulative percent
25–35	65	65.00	65.00	65.00
35–45	30	30.00	30.00	95.00
Above 45	5	5.00	5.00	100.00
Total	100	100.00	100.00	

(According to primary data)

Table 3: Qualification-specific sample attributes

Qualification	Frequencies	(Percent) %	Percent of validity	Cumulative percent
Bachelor	28	28.00	28.00	28.00
Post Graduate	71	71.00	71.00	99.00
Doctorate	1	1.00	1.00	100.00
Total	100	100.00	100.00	

(According to primary data)

Table 4: Experience-specific sample attributes

Experience (Years)	Frequencies	(Percent) %	Percent of validity	Cumulative percent
0–3	18	18.00	18.00	18.00
3–6	21	21.00	21.00	39.00
6–9	19	19.00	19.00	58.00
Above 9	42	42.00	42.00	100.00
Total	100	100.00	100.00	

(According to primary data)

Section II: Reliability Statistics

- Reliability statistics of recruitment factor*

For the recruitment factor's reliability statistics, a sample of 100 was considered, and the results are presented in the table. As shown in Table 5, n = 100 denotes the sample size processed for the test. In addition, Table 6 This reveals that 28 items were considered for the reliability statistics, and the computed Cronbach's alpha value is 0.924, more significant than the minimum acceptable value of 0.70. We can therefore conclude that the sample data are internally consistent.

- Reliability statistics of challenges and opportunities*

For the challenges and opportunities factor's reliability statistics, a sample of 100 was considered, and the results are presented in the table. As shown in Table 7, N= 100 denotes the sample size processed for the test. In addition, Table 8 reveals that the total number of items considered for reliability statistics was five, and the computed Cronbach's alpha value is 0.709, which is greater than the cutoff value of 0.70. We can therefore conclude that the sample data are internally consistent.

Table 5: Summary case processing – Recruitment factor

Case processing- Recruitment factor	N	Percent (%)
Valid	100	100.00
Exclude	0	0
Total	100	100.00

(According to primary data)

Table 6: Statistics on reliability – Recruitment factor

The alpha value of cronbach	Number of items
.924	28

(According to primary data)

Table 7: Summary case processing - Challenges and opportunities

Case processing- Challenges and opportunities	N	Percent (%)
Valid	100	100.00
Exclude	0	0
Total	100	100.00

(According to primary data)

Table 8: Statistics on reliability – Challenges and opportunities

Alpha value of cronbach	Number of items
.709	5

(According to primary data)

Table 9: Summary case processing – Training

Case processing- Training	N	Percent (%)
Valid	100	100.00
Exclude	0	0
Total	100	100.00

(According to primary data)

- *Reliability statistics of training*

For the recruitment factor's reliability statistics, a sample of 100 was considered, and the results are presented in the table. The sample size utilized for the test is denoted by $n = 100$ in the Table 9. In addition, Table 10 reveals that 11 items were considered for the reliability statistics, and the computed Cronbach's alpha value is 0.884, more significant than the minimum acceptable value of 0.70. We can therefore conclude that the sample data are internally consistent.

- *Reliability statistics of performance appraisal*

For the recruitment factor's reliability statistics, a sample of 100 was considered, and the results are presented in the table. The sample size utilized for the test is denoted by $N = 100$ in the table 11. In addition, Table 12 this reveals that 10 items were considered for the reliability statistics, and the computed Cronbach's alpha value is 0.894, more significant than the minimum acceptable value of 0.70. We can therefore conclude that the sample data are internally consistent.

Table 10: Statistics on reliability of training

<i>Alpha value of cronbach</i>	<i>Number of items</i>
.884	11

(According to primary data)

Table 11: Summary case processing – Performance appraisal

Case processing- Performance appraisal	<i>N</i>	<i>Percent (%)</i>
Cases		
Valid	100	100.00
Exclude	0	0
Total	100	100.00

(According to primary data)

Table 12: Statistics on reliability of performance appraisal

<i>Alpha value of cronbach</i>	<i>Number of items</i>
.894	10

(According to primary data)

Table 13: Summary case processing – Future of AI

Case processing- Future of AI	<i>N</i>	<i>Percent (%)</i>
Cases		
Valid	100	100.00
Exclude	0	0
Total	100	100.00

(According to primary data)

Table 14: Statistics on reliability of the future of AI

<i>Alpha value of cronbach</i>	<i>Number of items</i>
.785	8

(According to primary data)

- *Reliability statistics of the future of AI.*

For the recruitment factor's reliability statistics, a sample of 100 was considered, and the results are presented in the table. The sample size utilized for the test is denoted by $N = 100$ in the Table 13. In addition, Table 14 reveals that the total number of items considered for reliability statistics was 8, and the computed Cronbach's alpha value is 0.785, which is greater than the minimum acceptable value of 0.70. We can therefore conclude that the sample data are internally consistent.

Research Gap

The researcher's past review of the relevant literature shows that a lot of research has already been done on the topic of human resource management in the Indian IT business. Yet, only a few people have tried to figure out how helpful AI is in HR management outside of India. This group has both the United States and China in it. Even though experts have helped improve practices in the IT field, a closer look at the current literature on AI shows that a small study has been done on how AI could be best used in hiring, teaching, and judging performance. Looking at what has already been written about AI leads to this result. According to the research, AI has yet to be used to study many parts of human resource management. Because of this, there is a pressing need for studies on various topics that explain how human resource management should be handled in the Indian IT industry.

Problem Statement

Human resource management (HRM) covers things like hiring, training, growth, evaluating performance, paying people, and working toward the company's future success. In India, businesses still use the traditional approach to human resources. This means that employees do all tasks by hand, such as shortlisting resumes for hiring, keeping records on employees, meeting training requirements, giving performance reviews, managing leave, and firing employees (Pan & Froese, 2023). Humans can't do all the necessary tasks automatically, so each candidate needs to be careful and work quickly. People and groups will have biases and stereotypes, and human efforts may no longer be correct. This is a problem because HRM is becoming more critical in ensuring employees have the right skills and follow the rules while automating job-related redundancies like resistance to change, support from leadership, the right staff, and recognizing the need for employee education. Focus on AI goods that improve employee engagement and experience and gradually train or retrain employees to help them quickly adapt to automation (Malik *et al.*, 2022). The researcher thoroughly studied the literature and found that while some foreign companies have started using AI, very few Indian companies have. India has also done a small

amount of study into AI. Future studies on new tools that make things easier and more accessible must be done with more methods (Kaushal *et al.*, 2023).

Purpose of the Study

The main goal of this study is to find out how AI is currently used in HRM in the IT business and how this can be used in the HRM processes of IT companies in India (Rajhans & Bhavsar, 2022). This study will examine how AI affects different HRM aspects. It explains the current state of human resource management by giving us a model to help us understand how AI can change standard HRM and make it more effective (Laiho *et al.*, 2022).

Limitations of the Study

Since the study topic is new and there hasn't been much work done on related issues, there needs to be more background information available. So, the limits mentioned here also apply to the current probe.

- The statistical methods used to analyze the data are limited by how well they fit the data.
- Only the Indian IT business is being looked into.
- This study is limited to the time during which it was done.
- This is an employee-centered study because the only party the researcher looked at was the employee (Mukherjee, 2022).

Key Recommendations from the Research

AI is also something that most small businesses use in their HRM processes.

- HR workers should be given incentives to use AI, which will help them learn and advance in their careers.
- There needs to be a more detailed study on the new social, legal, community recognition, and responsibility problems that artificial intelligence brings up.
- For further training growth, there needs to be easy-to-use engagement that helps the employee learn more.
- The application tracking system needs to do a better job of keeping candidates up to date on their state.
- Because of an all-encompassing AI evaluation system, there isn't much contact between a boss and a worker about performance reviews. So, face-to-face contact is also needed to understand what employees are worried about. AI must be used in HRM systems, and they must be kept up to date.

Future Scope for Research

- According to this study, using AI to help with hiring is still a relatively new idea. AI-talent management and staff involvement must be studied more to learn more about them.
- AI is currently only used in the IT business when it comes to HRM. In the future, experts will look at other service

businesses, such as banking, insurance, shopping, and leisure (Kaushal *et al.*, 2023).

- Currently, less AI HR research is done with numeric data, and more research can be done in-depth with more qualitative data.
- This study is done from the point of view of middle-level HR workers; higher levels of HRM management have room for improvement (Priksat *et al.*, 2023).

Conclusion

The results show that AI is young regarding recruitment, and only a few companies use it for human resource management. Some of the best places for AI to be used in the human resource management process are in recruitment, preparation, learning, and improvement, as well as in success evaluation procedures, recruitment practices like pre-selection and correspondence with recruits, and the delivery of recruiting results to applicants. The main benefits of AI are speed, quality, and the removal of routine jobs. On the other hand, the biggest problem is that businesses are only sometimes ready for new technologies.

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