

Artificial Intelligence and HR Practices in Higher Educational Institutions in India: A Thorough Analysis

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ABSTRACT

Artificial Intelligence is proposed by John McCarthy and Marvin Minsky in 1956. They proposed that computers might be used to simulate human intellect by defining Artificial Intelligence (AI) as the ability of machines to understand, reason and learn similarly to humans. The scientific and engineering process of developing intelligent machines, especially computer programs, is known as artificial Intelligence (AI). In general, HR managers widely have a perception that AI will replace Human Resource managers shortly but in reality Artificial Intelligence does simplify their job by automating repeated tasks and providing valuable insights without any cognitive biases. This paper tries to address the possibilities of how Artificial intelligence is transforming and supporting the Human Resource functions like Recruitment, Training, Talent management and Retention through real time examples, gives insights on intersection of Artificial Intelligence and Human Resource management cases and finally it addresses the future impact on the HR workforce. The rapid growth of AI Technology is gradually bringing about a revolutionary change in the Indian Higher Education Environment. The transformation in Higher Education Institutions formalized with the announcement of National Education Policy (NEP 2020). This paper explores the role of AI in reshaping Higher Education Institutions in India.

Keywords: Artificial Intelligence (AI), Human Resource (HR), Recruitment, Training, Performance Management, Retention.

JEL Classification: 121, O33, A13.

INTRODUCTION

Past researches show that AI has grown exponentially and companies cannot ignore this big change in the industry. Serafini (2002) due to artificial intelligence businesses are introducing innovative products in every industry like media, financial services, health care, public sector and many more. While using AI organizations can easily perform their day-to-day functions. Artificial intelligence is entering into all the departments of the organizations. One of the most important departments is human resource and all the functions in this department are done through AI. Functions like recruitment, training, performance management and compensation management and so on have been done using AI technologies. Artificial intelligence, which is one of the most advanced and growing technologies today, has helped a lot in improving the HR department. AI automates and completes the majority of low-value HR tasks so that more attention may be focused on the strategic scope of work.

REVIEW OF LITERATURE: AI IN HIGHER EDUCATIONAL INSTITUTIONS

Johnpaul M and Ravi Aluvala (2024) in their article titled “Artificial Intelligence and Human Interactions: Present and future prospects in Indian Higher Education” stated that AI and Human interaction in higher education in India have a bright future, but there are many obstacles to overcome. Their main recommendation is that higher education practitioners may best support learning outcome goals and education’s overarching purpose of developing a workforce with the requisite skills by implementing AI.

The research study by Sharma. R., & Bansal, R (2020) captioned as “Artificial Intelligence in Higher Education in India: Opportunities and Challenges”, specifically focuses on AI’s implementation in Indian higher education. It identified key barriers, such as infrastructural limitations, and opportunities, such as improved student outcomes through personalized learning. Bhatia, S (2021) work on “AI in Indian Higher Education: A Critical Assessment” critiques the uneven application of AI in Indian universities, highlighting the infrastructural challenges and institutional readiness issues that hamper the effective integration of AI tools

Research Objectives:

1. To study the concept of Artificial Intelligence.
2. To study the role of AI in higher Educational Institutions.
3. To study the role of Artificial Intelligence in HR Practices.

RESEARCH METHODOLOGY

This paper adopts a descriptive and exploratory research design and employs a qualitative approach. A structured questionnaire was developed and executed, which includes Multiple choice questions and demographic questions for qualitative data collection interviews with smaller group of key stakeholders and discussions with focus groups were conducted. Descriptive statistics (mean, Median, Mode) and inferential statistics (correlation analysis and regression analysis) used to examine the relationship between AI and academic outcomes. Qualitative analysis was done through thematic analysis to analyze interview and focus group data and the software tool (Vivo) was employed.

Correlation analysis of the Relationships between key variables

With a view to assessing the relationships between key variables such as AI adoption, student performance, faculty training and administrative AI use correlation analysis is conducted. For this analysis it was assumed that AI adoption in classrooms is positively correlated with student satisfaction, faculty training in AI positively correlates with AI adoption in classrooms, AI adoption in classrooms positively correlates with student academic performance. The Pearson correlation is used to assess the strength and direction of linear relationships between the variables.

Correlation Results Interpretation:

1. **Student Satisfaction:** It shows that a strong positive correlation 0.77 exists between AI adoption in classrooms and student satisfaction. It suggests that students benefits from AI- enhanced learning environments in classrooms.
2. **Faculty Training:** Between faculty training in AI and AI adoption in classrooms, a moderate positive correlation (0.63) is observed.
3. **AI adoption in Classrooms:** A moderate to strong positive correlation (0.64) is found between AI adoption in classrooms and student academic performance.
4. **Student Academic Performance:** It indicates that students who are more satisfied with AI perform better, as strong positive correlation (0.74) exists.

Literature Review: Artificial Intelligence in HR Practices

Tiwari et al (2021) AI systems are helpful for a company to carry out their tasks and run business successfully. He focused on the requirement of AI in organizations due to increasing competition in the market. Researcher has used quantitative studies to conduct this research and used regression methods to analyse the results. Results show that AI is important for HR practices in an organization. HR practices range from recruitment to performing tasks in the organization.

VivekYawalkar (2019) focused on role and benefits of AI in HR. Results found out that AI can increase work efficiency and workload of employees gets reduce. AI provide accurate data.

Jarrahi (2018) focus on artificial intelligence and its role in human resource in making organizational decision making. He focuses on usefulness of AI for humans. Artificial intelligence supports decision making in organizations and deals with uncertainties which ultimately helps organizations to make right decisions. Industry needs new technologies and tools to help humans in their working and lastly help them to take decisions.

R.D. (2018) focuses on recruitment process in the organization with the help of artificial intelligence. Researcher said that AI plays an important role in recruitment process and is the integral in doing recruitments in the organization. Artificial intelligence helps in screening the candidates, scheduling the interviews, selecting the candidates and employees relations.

Artificial Intelligence is frequently used for HR activities such as:

1. **Recruitment:** Probably the largest technological shift has occurred in the recruitment area. Expanding and improving candidate acquisition, digital application processes, and candidate selection have led to a faster and more efficient recruiting process as well as a shift in the dynamic between applicants and employers. Jia (2018). AI has become an indispensable tool for recruiters in the last few years, and 76% of them believe it will have a big influence on HR's recruiting function (Verlinden, 2019).
2. **Training:** Through the use of artificial intelligence technology, staff members may benefit from automated training data recording. Managers may rapidly learn about training outcomes and save time by having the intuitive data swiftly evaluated to reveal the extent and impact of employee learning. A quick and effective learning experience can also be achieved by businesses using speech technologies, learning material databases, and core algorithms. The operation and management of both online and offline training can be considerably reduced by AI trainers, in addition to improving the quality and effectiveness of learning.
3. **Performance Management:** In terms of performance management, data about employee's job performance may be gathered and analyzed in order to integrate the performance evaluation model into the framework. The intelligent decision support system (D O.,1999) makes it possible to use some scientific assessment procedures, including the 360 – degree performance evaluation methodology, more automatically and quickly. The evaluation strategies are put into the decision support system to increase the accuracy of the count of employee evaluation outcomes.
4. **Retention:** The ability of the Organisation to retain its employees is referred to as employee retention. Combining big data, machine learning, and human interaction is essential for successfully leveraging AI for retention. AI may be used by employers in a variety of creative ways to improve worker retention and happiness, such as:
 1. Work life balance achieved through flexible schedule.
 2. Recognising growth prospects
 3. Increasing efficiency (Jia, 2018)
5. **Compensation Management:** Compensation management , or salary management, is a dynamic management process that, with the guidance of organizational growth plans, defines, assigns, and alters employee compensation principles, methods, levels, structures, and features. Applications of artificial intelligence can aid in the administration of salaries fairly(Jia, 2018).

Benefits of Implementing AI in HR:

1. **Increases competitive edge:** Human resource (HR) applications of artificial intelligence (AI) offer fresh perspectives, change how decisions are made, reveal the advantages and disadvantages of rivals, and enhance commercial outcomes. A strategic investment in artificial intelligence (AI) is seen by forward-thinking businesses as generating considerable commercial values and giving them a competitive advantage in their industry.
2. **Developing and Acquiring New Skills:** Artificial Intelligence (AI) gives human resources (HR) professionals the ability to use predictive analysis combined with natural language to bridge employees' skill gaps and link them to learning opportunities to acquire more in- demand abilities.

3. **Increases Employee Satisfaction:** Knowing the employees' pulse is crucial as talent pools get more complex. Employees demand products that are appropriate, handy, and can be tailored to their needs and preferences. By satisfying four criteria- clarification, compliance, connection, and culture – Artificial Intelligence (AI) helps business executives resolve their problem. The broad ranges of data overlapping that Artificial Intelligence (AI) enabled technology allows for help enhance employee experience at the individual level.
4. **Effective Utilization of the Budget for HR:** Human Resource (HR) budgeting decisions are exceedingly difficult to make. The modern human resource manager (HR) depends on AI-driven algorithms to make the right choices about resource allocation and budgeting, as opposed to the one-size-fits-all approach that worked well in the past. Decisions generated by Artificial Intelligence (AI) have the main benefit of being based on factual and statistical data that have undergone rudimentary computations.
5. **Mental Wellness:** Due to the increasing amount of personal and professional connection between employers and workers, the role of human resources has shifted from being product-oriented to becoming people- centric. Currently, the areas of expertise for HR professionals include workplace mental health and wellbeing are maintained through counseling, mentoring, and moral support. Longer work hours, shifting company dynamics, shifting business responsibilities, and pressure to achieve project deadlines are a few reasons why it's important to monitor the mental health of workforce. Organizations can utilize AI- based approaches like sentiment analysis to detect employees who are experiencing disruptive mental states and to correlate staff morale. AI- enabled wearable devices, for instance, may evaluate and track data using deep learning models, speech and picture recognition, and NLP, attitudes and feelings of employees. The ability to incorporate knowledge about the warning signs of a worker's poor mental state into Artificial Intelligence (AI) enabled frameworks would enable the Human Resource department to provide additional support. This aids in the identification of workers who are having difficulty performing job tasks or who are battling mental illnesses like anxiety and depression (Okhifun, 2020).

CONCLUSION

In general Human Resource managers widely have a perception that Artificial intelligence systems will replace Human Resource managers shortly but in reality, Artificialintelligence does simplifies their job by automating repeated tasks and providing valuable insights without any cognitive biases. the possibilities of how Artificial intelligence is transforming and supporting the Human Resource functions like recruitment, training,talent management and retention through real time examples,Gives insights on intersection of Artificial intelligence and Human resource management cases and finally it address the future impact on the HR workforce.

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