MAJOR RESEARCH PROJECT ON

IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMAN RESOURCE MANAGMENT

SUBMITTED BY: -

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CERTIFICATE

This is to certify that the dissertation report titled “Impact of Artificial Intelligence on Human Resource Management” in Delhi is a Bonafede work carried out by MITALI GOYAL, roll no- 2K22/DMBA/76 and submitted to Delhi school of management, Delhi technological university, Bhawana Road. Delhi-42 in partial fulfilment for the requirement for the award degree of master of business administration.

Signature of supervisor

(DSM)

DECLARATION

I, **Mitali Goyal** student of MBA 2022 – 2024 batch of Delhi School of Management, Delhi Technological University, hereby declare that major research report on **"Impact of Artificial Intelligence on Human Resource Management**" submitted in partial fulfilment of degree of master of business administration is the original work conducted by me under the guidance of Mr. Yashdeep Singh.

The information and data in the report is authentic to the best of my knowledge. This report is not being submitted to any other university for award of any Degree, Diploma and Fellowship.

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Finally, a note of thanks is due to all those, too many to single out by name, who have helped in no small measures by cooperating during the project.

EXECUTIVE SUMMARY

In today's ever-evolving workplace, the integration of Artificial Intelligence (AI) into Human Resource Management (HRM) is reshaping how companies attract, develop, and retain talent. AI technologies, akin to trusted allies, are revolutionizing traditional HR practices, offering newfound efficiencies and insights while posing unique challenges that demand thoughtful consideration.

Imagine a workplace where AI serves as a supportive teammate, assisting HR professionals in tasks ranging from candidate screening to predictive analytics for talent management. With AI-powered recruitment tools, the burden on HR teams is lightened, enabling them to focus on cultivating meaningful connections and experiences for employees.

Yet, amidst the promise of enhanced efficiency lies a nuanced landscape of ethical and societal implications. Concerns about bias in AI algorithms and the potential displacement of human decision-making underscore the importance of transparency, fairness, and ongoing dialogue surrounding the ethical use of AI in HRM.

In this dynamic environment, HR professionals are tasked not only with harnessing the potential of AI to drive organizational success but also with safeguarding the well-being and dignity of the workforce. By embracing AI as a partner rather than a replacement, organizations can navigate these complexities, leveraging technology to create workplaces that are not only efficient but also equitable and human-centric

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CHAPTER-1

INTRODUCTION

Technology is a significant and influential aspect in the industry. Since the 19th century, robots have been displacing employees in the production area. The third revolution commenced in the 1970s when computers and the internet became integrated into the workforce, leading to the replacement of human labour with machines. In the present era, technologies like machine learning and AI are increasingly being incorporated into everyday work environments, resulting in significant changes and advancements in business operations. AI is a machine that is designed to be an ideal intelligent agent. It is capable of perceiving its surroundings and making decisions that will increase its likelihood of achieving a specific objective.

Artificial intelligence pertains to the thinking skills demonstrated by robots, in contrast to the inherent intellectual capacity exhibited by humans. Artificial intelligence is advantageous in diverse corporate operations as it may effectively alleviate the strain and work-related stress experienced by individuals in the workplace. Swift adaptation is required to meet the dynamic demands of the commercial world. By utilizing an AI system, organizations may effectively assess and communicate their current performance and daily operations. Businesses have experienced a growing amount of pressure, prompting astute managers to recognize the significance of AI at the workplace.

Currently, artificial intelligence has been integrated into various aspects of organizational systems. AI is being used in the human resource department to replace human involvement in functions such as candidate screening, recruiting, coordination of HR activities, and performance management.

1.2 HR ACTIVITIES IN AN ORGANISATION

1. Talent acquisition and candidate screening. Recruitment is a subset of talent acquisition that involves the processes of sourcing, interviewing, and hiring. In order to facilitate an efficient recruitment process, human resources professionals must incorporate workforce planning. This will allow them to proactively identify and align qualified individuals with appropriate job vacancies.

2. Training and development: Individuals are the most significant resource of a firm. Through allocating resources to professional development, HR creates an opportunity for ambitious employees to enhance their careers, hence increasing the company's overall worth. Providing specialized training and guidance on productive work behaviours promotes professional development. Furthermore, providing development programs can expose emerging leaders and expose individuals' strengths and faults.

3. HR management: HR Management is the deliberate approach to fostering employee’s involvement and efficiency in order to bolster an organization's achievement. The HR division makes it easier for workers to contribute effectively to the company by offering them legal and administrative support, practical tools, coaching, and training.

4. Talent and performance: HR specialists may improve performance across the board for the organization by actively incorporating staff members in the performance review procedure. HR departments that foster a positive workplace culture, offer a continuous performance review process, and encourage input from various sources enable people and raise their performance and engagement levels.

5. Compensation and benefits: HR compensation managers can cooperate with finance leaders to create competitive and cost-effective compensation packages. Offering individuals a generous salary and attractive perks is a crucial element in

boosting employee motivation. Additionally, it can aid in the recruitment of highly skilled individuals to the organization.

6. Industrial relations: HR teams are tasked with the job of fostering and maintaining positive working relationships with labour unions and other collectives. Engaging in continuous communication with labour unions can facilitate the prompt resolution of conflicts. In the event of an economic decline, maintaining favourable relationships with labour unions can facilitate conversations regarding potential adjustments to compensation, and potentially even layoffs.

7. Employee well-being. The mindset and mental well-being of your employees have a direct impact on the efficiency and overall effectiveness of your firm. Therefore, HR departments have the responsibility of establishing programs that give priority to the physical health and mental well-being of their employees. Employee wellbeing efforts typically encompass individualized messaging, employee assistance programs, and campaigns aimed at promoting mental health awareness.

8. Responsibility for administrative tasks. In addition to the aforementioned tasks, HR teams are nonetheless accountable for the administrative responsibilities that have traditionally been managed by HR. HR specialists utilize personnel procedures and HR platforms to automate processes and securely store employee data. They are responsible for overseeing several aspects, including promotions, complaints, disciplinary actions, performance improvements, illnesses, regulations, DEI&B initiatives, harassment training, bullying, and more.

1.3 HR AND CHNAGING TECHNOLOGY

The world of Human Resources (HR) is undergoing a major transformation thanks to the influx of new technologies. These advancements are not only streamlining existing processes but also opening up exciting possibilities for talent acquisition, management, and development. Here are some of the most special features of new technology in HR:

1. **AI-DRIVEN RECRUITMENT:**

- Enhanced candidate sourcing: AI algorithms can efficiently analyze extensive resumes and social media profiles to locate the most suitable individuals for a job, mitigating bias and optimizing time use. Envision a system capable of evaluating a candidate's writing style and tone to determine their compatibility with the culture of your firm

- AI chatbots can do automated screening by conducting first interviews, providing answers to basic inquiries, and arranging appointments. This allows HR professionals to focus to more important responsibilities.

- Predictive analytics: Artificial intelligence can evaluate employee data to forecast turnover, recognize individuals with exceptional performance, and even suggest customized learning courses.

2. **IMPROVED EMPLOYEE EXPERIENCE:**

    - Virtual onboarding: Virtual reality simulations can offer immersive training experiences, while augmented reality can superimpose job aids and instructions onto actual equipment.

    - Redefining performance management: AI-driven feedback solutions can offer ongoing, data-based feedback to employees, assisting them in enhancing their performance.

- Employee well-being platforms provide tools and assistance for mental health, physical fitness, and financial wellness, resulting in increased employee happiness and productivity.

3. ESTABLISHING A WORKFORCE THAT IS BOTH DIVERSE AND INCLUSIVE:

- AI can utilize unconscious bias detection to scan job descriptions and recruitment materials, identifying and eliminating biased wording. This promotes the adoption of fairer hiring practices.
- Talent marketplace: Internal platforms facilitate the connection between employees and available opportunities inside the organization, hence fostering career advancement and professional development.
- Cloud-based HR systems provide the capability to optimize payroll, benefits, and compliance processes for employees in many regions and time zones, thus facilitating global workforce management.

1.4 RESEARCH OBJECTIVE

- **Exploring the World of AI**: We're embarking on a journey to understand what artificial intelligence truly means. It's not just about the tech jargon; we want to grasp its essence and how it's changing the way we work and live.

- **Unravelling AI's Impact on People Management**: We're delving into the ways AI is becoming a game-changer in how companies handle their most valuable asset: their people. It's not just about automating tasks; it's about enhancing the employee experience and fostering a more connected workplace.

- **Discovering the Human Touch in AI-Driven HRM:** Let's uncover the real perks AI brings to HRM. It's not just about numbers and statistics; it's about how AI can empower HR professionals to make more informed decisions, and create a workplace where everyone can thrive.

- **Navigating the Human Side of AI Challenges**: As AI becomes more integrated into HR departments, we need to address the potential hurdles. It's about understanding the fears, the uncertainties, and the ethical considerations surrounding AI's role in shaping our workforce's future.

1.5 ROLE OF ARTIFICIAL INTELLIGENCE IN HR

The HR department is currently adopting advanced technologies such as big data analysis, artificial intelligence, and cloud computing to optimize resource management. The majority of firms are utilizing artificial intelligence (AI) and digital HR technology, such as chatbots, machine learning, and robot process automation, to assist with HR operations such as hiring, screening, onboarding, and interviewing.

Below are the roles of Artificial Intelligence in human resource management

1. Recruitment: According to the study, only 40% of businesses and industries use artificial intelligence. Digital technology is being used by organizations like SAT, Facebook, and GE to find, screen, and interview potential new hires for their recruitment process. A recruitment manager can review applications using AI, and candidates can receive a prompt response. An automated answering machine or chat box system is crucial for addressing inquiries and issues pertaining to an organization's hiring procedure.

2. Screening and Interview process: - Artificial intelligence can automate the interview process by utilizing word or speech pattern analyses. AI software can be utilized to perform digital interviews, which improves the whole experience for applicants. Amy and Clara are tools commonly employed for the purpose of scheduling interviews and working meetings.

3. Administration: HR departments in businesses must multitask while attempting to minimize workloads through the use of technology and artificial intelligence. AI offers answers to issues and boosts an organization's HR department's effectiveness.

4. Selecting: Based on the researcher's findings, artificial intelligence can enable human resource managers to efficiently identify suitable candidates, while technology can aid in identifying individuals who possess the required skill sets.

5. Reduce Discrimination: In the present era, artificial intelligence (AI) is being employed to reduce bias and enhance transparency in the workplace. By doing so, the organization can effectively choose the resume. Artificial intelligence (AI) tools can be utilized for the purpose of analysing job descriptions.

6. Increase Efficiency: Artificial Intelligence will be essential in minimizing employee redundancy in the workplace. Several robotic tasks have been implemented to enhance workplace efficiency. The robotic tasks encompass data collection, report filing, data duplication, identification of necessary data from existing sources, data processing, and data collection for HR and payroll systems.

7. Enrich workplace learning: In modern times, computers and digital technologies have the capability to perform the background tasks in several industries. Computers and contemporary technology enable companies to effectively do data analysis and offer immediate feedback during training. They also allow for adjustments in course of activities based on progress and responses received by industries. Companies utilize Microsoft 365 to optimize time management and enhance staff productivity in the workplace. AI tools such as Engazify, Obie, Niles, Wade &Wendy, and Duolingo are utilized for various purposes. Engazify is employed for providing feedback, Obie and Niles are used for knowledge sharing, Wade &Wendy aids in career progression, and Duolingo is utilized for learning in the domain of language.

1.6 BENEFITS OF ARTIFICIAL INTELLIGENCE IN HR

- Easing the Load on Admin Teams: Imagine giving your hardworking administrative staff a breather. AI steps in to handle the repetitive tasks, freeing them up to focus on more meaningful work that truly utilizes their skills and expertise.

- Finding the Perfect Fit for Your Team: Think of AI as your trusty sidekick in the recruitment process. It sifts through countless resumes, spotting those hidden gems that might have been overlooked otherwise. With AI's help, you're not just hiring; you're finding the perfect match for your company culture and goals.

- Keeping Your Team Together: AI isn't just about hiring; it's about keeping your team intact. By analysing various factors, from workload to employee sentiment, AI can predict who might be at risk of leaving and help you take proactive steps to keep your valued team members on board.

- Empowering Humans to Do More: Instead of replacing humans, AI works alongside them, complementing their skills and abilities. It's like having a reliable co-worker who's always there to lend a hand and make the workload more manageable.

- Reducing Errors, Increasing Confidence: With AI's precision and attention to detail, the chances of errors are significantly reduced. Say goodbye to those pesky mistakes that can cost time, money, and even reputation.

- Keeping the Wheels Turning Smoothly: Picture AI as the conductor of an orchestra, ensuring that every department plays in harmony. By optimizing workflows and identifying bottlenecks, AI helps keep the entire operation running smoothly.

- Delivering Spot-On Results: When you need accurate insights and data-driven decisions, AI delivers. It's like having a crystal ball that can provide you with the information you need to make informed choices and drive your business forward.

- Boosting Team Spirit: AI isn't just about efficiency; it's about engagement too. By personalizing experiences and offering tailored support, AI helps employees feel valued and engaged in their work, fostering a positive and motivating environment.

- Making Fairer Decisions: Bias has no place in decision-making when AI is involved. By analysing data objectively and without preconceptions, AI helps ensure that decisions are fair, transparent, and based on merit rather than subjective factors.

1.7 CHALLENGES OF ARTIFICIAL INTELLIGENCE IN HR

- Adapting to New Skill Requirements: Imagine being told that your job now requires a whole new set of skills because of AI. It's not just about learning to use new tools; it's about feeling uncertain and maybe even a little overwhelmed about how to keep up with the rapidly changing landscape of digital technologies.

- Navigating Changes in Company Dynamics: Picture being an employee in a company where AI is shaking up the traditional hierarchy. It's not just about adapting to new systems; it's about feeling unsure about where you fit in and whether your role still holds the same value and security it once did.

- Finding the Right People for the Job: Think about the HR team tasked with finding candidates who not only have the right qualifications but also the ability to handle AI tools effectively. It's not just about sifting through resumes anymore; it's about finding individuals who are not only skilled but also adaptable and eager to embrace change.

- Balancing Technology with Human Decision-Making: Imagine being an HR professional whose authority and decision-making power are being gradually overshadowed by technology. It's not just about feeling sidelined; it's about grappling with the balance between leveraging AI's capabilities and maintaining the human touch that's so crucial in people management.

- In essence, these challenges aren't just about technology; they're about the human experience of navigating uncertainty, adapting to change, and finding our place in a world where AI is becoming increasingly integrated into our workplaces

CHAPTER-2

LITERATURE REVIEW

2.1 RESEARCHERS WORK

1. (Kapoor, 2010) The researcher took a close look at how business intelligence can benefit human resource management. They explored this in their research article by examining a top business intelligence vendor. Their goal was to understand how the vendor's business intelligence and data analytics features are applied within human resource management modules.

2. (Jain, 2018) The research paper shed light on how artificial intelligence is reshaping human resource management. According to the researcher, many companies are embracing modern technology across different HR functions, such as recruitment, performance appraisal, and transitioning to cloud-based HR systems.

3. (Dirican, 2015) In his research paper titled "The Impact of Robotics and Artificial Intelligence on Business and Economics," the researcher delved into how the integration of robotics and AI in business operations could potentially bring about adverse effects. The study highlighted that these technologies might disrupt various aspects of organizational functioning, including production, performance management, sales, strategic planning, customer relationship management, banking systems, coaching, training, and taxation.

4. (Buzko, et al., 2016) In their paper titled "Artificial Intelligence Technologies in Human Resource Development," the researchers explored the challenges AI poses in the HR domain. They pointed out a significant hurdle: AI struggles to gauge the effectiveness of training expenses. Additionally, the authors highlighted that AI

technologies enable quick data analysis, complementing human decision-making processes.

5. (R & D, 2018) In their paper titled "Recruitment through Artificial Intelligence: A Conceptual Study," the researchers explored the pivotal role of AI in modern recruitment processes. They emphasized how AI is seamlessly integrated into recruitment, assisting in candidate screening, sending automated messages to applicants, managing employee relations, and scheduling interviews efficiently.

6. (Jarrahi, 2018) In his research paper titled "Artificial Intelligence and the Future of Work: Human-AI Symbiosis in Organizational Decision Making," the researcher discussed how AI benefits humans. They highlighted AI's role in aiding decision-making processes, particularly in handling uncertainty and equivocality within organizations. However, the paper also emphasized the indispensable role of humans in certain industries, where subconscious decisions play a crucial part in evaluating and influencing decision outcomes.

7. (Merlin.P & Jayam.R, 2018) n the research paper titled "Artificial Intelligence in Human Resource Management," the author explored the impact of AI on HR functions. They concluded that AI plays a valuable role in the workplace, assisting HR professionals in understanding their tasks better and predicting issues and trends ahead of time.

2.2 THE FUTURE OF AI-HUMAN COLLABORATION SYSTEM

The future of HR–AI collaboration systems is marked by a dynamic partnership between humans and AI, where each contributes its unique strengths to enhance the efficiency and effectiveness of HR management processes.

As research suggests, AI isn't replacing entire roles but rather streamlining workflows by automating specific tasks. This division of labour is often sequential, with AI handling certain stages while humans oversee others. For example, AI can screen job applicants, presenting a shortlist to hiring managers who then make final decisions.

In our proposed typology, we examine the autonomy of humans and AI in performing tasks based on their routine vs. non-routine nature and their cognitive complexity. Routine, low-cognitive tasks are ideal for full AI automation, as they're repetitive and generate ample data for algorithms to learn from, freeing up human time for more complex endeavours.

While AI is adept at such tasks, non-routine, low-cognitive tasks pose challenges due to limited training data. However, advancements like self-supervised learning hold promise in making these tasks more AI-friendly. For instance, in performance management, AI can track productivity and even suggest actions like job terminations, though human oversight remains important.

Looking ahead, AI may tackle highly cognitive tasks, such as quarterly bonus decisions, leveraging vast datasets for informed recommendations. Yet, human involvement remains crucial for strategic decisions with long-term implications, offering expertise in navigating complex situations and ensuring accountability.

In digitally transformed organizations, this collaboration is key. While AI excels at pattern recognition and data processing, humans provide invaluable context, creativity, and strategic insight. Together, they form a symbiotic relationship, driving innovation and efficiency in HR management

2.3 POSITIONING ARTIFICIAL INTELLIGENCE AND AUTOMATION IN HUMAN RESOURCE DEVELOPMENT

The journey of integrating Artificial Intelligence (AI) and automation into Human Resource Development (HRD) has been akin to a technological evolution with roots tracing back to earlier innovations in the field. Imagine stepping into the past, where the 1960s and 1970s witnessed the introduction of computer-based training systems, marking a significant departure from traditional, instructor-led teaching methods (Noe, 2010). Then, fast forward to the 1990s, where the emergence of the internet ushered in the era of e-learning, offering employees a more flexible and convenient medium for engaging in learning and development (Ruiz et al., 2006).

The Transformative Role of Web 2.0 Technologies

In the early 2000s, the advent of Web 2.0 technologies catalyzed yet another transformation in HRD. Picture the rise of social learning platforms, collaborative learning environments, and online communities of practice, ushering in a new era of democratized learning experiences (Salas et al., 2012). This shift expanded the horizons of HRD, fostering richer, more interactive engagements (Marler & Fisher, 2013).

Recent Innovations and Their Impact

Recent innovations have further propelled this evolution, embracing mobile learning and immersive technologies like virtual and augmented reality. Imagine the immersive experiences these technologies offer, providing employees with highly personalized and engaging learning environments (Wilson & Daugherty, 2018).

The Seamless Integration of AI and Automation

Now, imagine the seamless integration of AI and automation into HRD, opening a new chapter in the field's evolution. These technologies find applications across various HRD functions, from learning and development to talent management and workforce planning (Agarwal et al., 2023). In learning and development, for instance, AI and automation, with their prowess in data analysis and pattern recognition, are revolutionizing how learning needs are identified and addressed. AI algorithms analyze employee feedback using natural language processing and machine learning, unveiling actionable insights related to skill gaps and learning needs (Agarwal et al., 2023).

Challenges and Considerations

Yet, this transformation is not without its challenges. Issues such as data privacy, the ethical use of AI, and the potential for job displacement require careful consideration (Panda et al., 2023). It's essential to navigate these challenges with thoughtfulness and care to fully harness the potential of AI and automation in HRD.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology is like a roadmap, guiding researchers through the systematic and scientific process of gathering, analysing, and interpreting data, whether quantitative or qualitative. It's a structured framework that helps researchers stay on track and define the scope of their study. Before settling on a methodology, it's crucial to consider factors like research constraints and ethical considerations that could influence the study.

In a scientific paper, the methodology section outlines the decisions made regarding data collection and analysis methods, providing reasoning for these choices. These justifications explain why the chosen methodologies are best suited to address the research questions. A robust research methodology is vital for ensuring the credibility and accuracy of research findings. Methods can be broadly categorized into quantitative and qualitative, with the choice depending on the research objectives.

Research methodology encompasses the techniques and procedures used to gather and analyze information on a specific topic. It's how researchers design their study to achieve their goals using selected research instruments. This includes aspects like research design, data collection methods, analysis techniques, and the overall framework guiding the research process.

3.1 TYPE OF RESEARCH METHODOLOGY

Research methodologies can be classified into various types.
There are two categories of research methodology, which are determined by the type of research being conducted and the specific data that is needed.

1. **Quantitative research** approach is centred around the measurement and testing of numerical data. This method is effective for rapidly reaching a substantial audience. This form of study facilitates the examination of causal connections between variables, the formulation of predictions, and the extrapolation of findings to broader populations.

2. **Qualitative research** methodology investigates the viewpoints, actions, and encounters of individuals. The system gathers and examines words and textual information. This study methodology necessitates a smaller number of participants, although it remains more time-consuming due to the substantial amount of time dedicated to each participant. This strategy is employed in exploratory research when the research problem being examined is not explicitly stated.

3.1.1 EXPLORATORY RESEARCH DESIGN

Exploratory research involves using extremely flexible, unstructured, qualitative methods to gain understanding of the scope of the issue and possible solutions. The ability to construct hypotheses and obtain fresh insights with flexibility is a hallmark of exploratory research designs. It doesn't follow a pre-made sample or survey. Its foundations include an experimental investigation, a survey of the literature, and an analysis of specific situations. Unstructured interviews offer a great deal of freedom to the respondents. This design is not the complete basis of any investigation. It functions as a complementary design to descriptive and causal designs.

3.1.2 CONCLUSIVE RESEARCH DESIGN

Conclusive research designs, as the name implies, are utilised to produce data that may be realistically applied to conclusions or decision-making. For this kind of study, specific research objectives and data requirements must be stated. The conclusions of conclusive study usually serve a particular function. Conclusive research design allows for the validation and quantification of exploratory study results. Usually included is the application of quantitative data collection and analysis methodologies. Furthermore, deductive reasoning is usually included in decisive investigations, and concepts are tested in order to achieve research objectives. Additional categories for conclusive research designs include descriptive and causal/experimental research approaches.

3.1.3 DESCRIPTIVE RESEARCH DESIGN

Descriptive research designs often involve the description of problems and their remedies. There is greater purpose and emphasis in the research. It is necessary for the well-defined problem to exist before any significant attempts at descriptive research are made. Descriptive research is supported by one or more hypotheses. Descriptive research requires a precise explanation of the who, what, when, where, and how of the study. Descriptive design is used to address these problems.

3.1.4 CAUSAL RESEARCH DESIGN

To establish cause and effect links is the aim of the causal study design. Typically, it takes the form of a test. An attempt is made to measure the effects of adjusting independent elements (like items, price, advertising and selling activities, or marketing strategies in general) on dependent variables (like sales volume, profitability, brand image, and brand loyalty). When addressing genuine marketing problems, it is more beneficial. Test marketing, which modifies the independent factors (pricing, product, promotional activities, etc.) to observe how they affect the dependent variables (sales, profitability, brand loyalty, competitive advantages, product differentiation, etc.), is the greatest example of experimental marketing. The

two techniques to research design are complementary; exploratory research is usually used when there has been little to no previous research done on the subject. It is forbidden to conduct any previous research on the subject, including studies, journal papers, and publications. The launch of a new restaurant chain is one example. Although there is no set order in which to apply these designs, conclusive research is frequently conducted following exploratory research because the main objective of any research is to either find a consensus or a solution to the problem being addressed. Any study cannot be built solely on one type of research design. Combining exploratory research with some forms of definitive study designs can be beneficial.

3.2 DATA COLLECTION

Methods for gathering and analysing data: The success of every project or market research depends on the collection and analysis of data. The reliability of the data collected is crucial for achieving the objectives of the study. All data sources fall into one of two categories:

Primary data: Direct observation or personal data collecting are the sources of primary data. It refers to data that is unique in nature and acquired from the field of study with a specific goal in mind. The majority of the primary data for the study were collected using the survey method and the questionnaire tool.

Secondary data- Secondary data are those that have already been obtained by another party for a specific purpose and are subsequently utilised in different contexts. It is rumour about something that the researchers haven't seen firsthand. Utilising secondary data can save costs and time. Enhancing the accuracy of the analysis is the aim. In this case, secondary data was gathered from a range of sources, including the company's publications, books, records, magazines, and journals.

3.3 SAMPLING METHOD

Taking a sample from a larger group and forming a small representation or cross section of that group is the process of sampling. After deciding on the variables, either the entire population will be the subject of data collection, or a particular group will be chosen as being representative of the entire population. This is because the selection of the sample used to gather the research data is the most important factor in determining the general applicability of the research findings.

3.3.1 SAMPLE DESIGN:

The research study is using the descriptive research design. In the research study the researcher has used secondary data. The secondary data has been collected from research papers, published materials, online websites, HR blogs, and survey reports published by various research organizations.

3.3.2 QUESTIONNAIRE

For the purposes of this study, information is obtained from respondents who use the questionnaire. Often, a supplied 1Performa in the form of a questionnaire is used to collect the essential data for a statistical analysis. To find out how interviewer finds AI involvement in HR recruitment process also do the think that using AI in day-to-day activity will be an optimal decision the researcher intends to use a tool and a handbook. Respondents must tick the corresponding box next to each question on this form, which includes a list of questions that investigators are supposed to ask. Data collection was done by performing a survey through Google Forms.

Total of **80** responses were recorded.

3.4 ANALYSIS TECHNIQUE:

The data collected from the respondent were analysed using SPSS, a statistical analysis tool commonly employed in research settings. Specifically, regression analysis was utilized to explore and explain the relationships between the adaptation of AI in HR activities and its impact on the organisation. Regression analysis is a statistical method used to examine the relationship between one or more independent variables and a dependent variable. Dependent Variable (Y): This is the variable that you are trying to predict or explain. Independent Variables (X): These are the variables that are hypothesized to have an impact on the dependent variable.

CHAPTER-4

DATA ANALYSIS

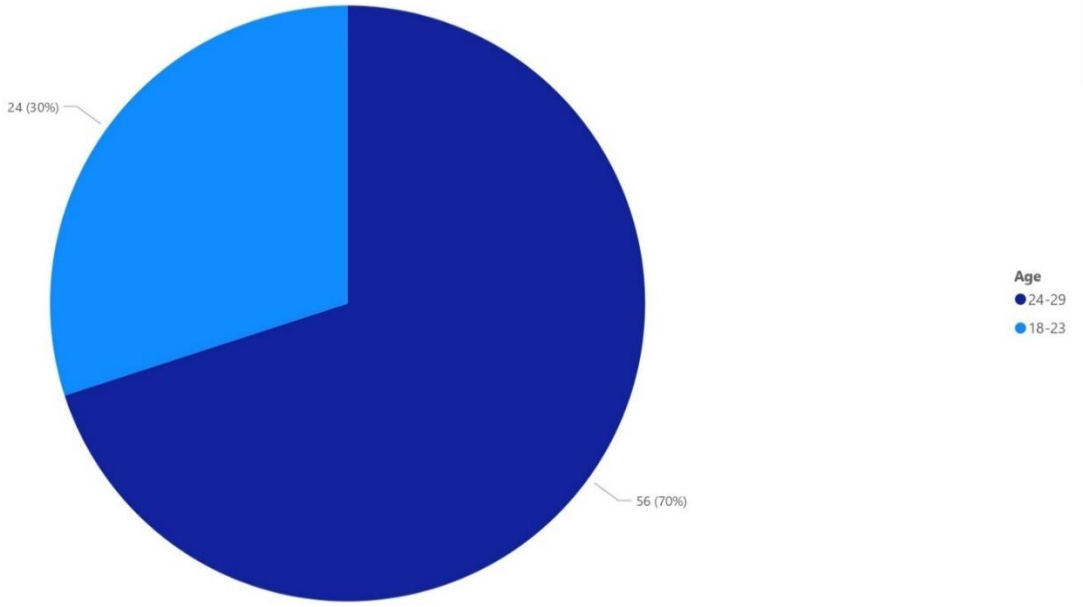

Figure 1

This chart represents the age of the participants where 70% of them belongs to age between 24-29 and remaining 30% belong to 18-23 years of age.

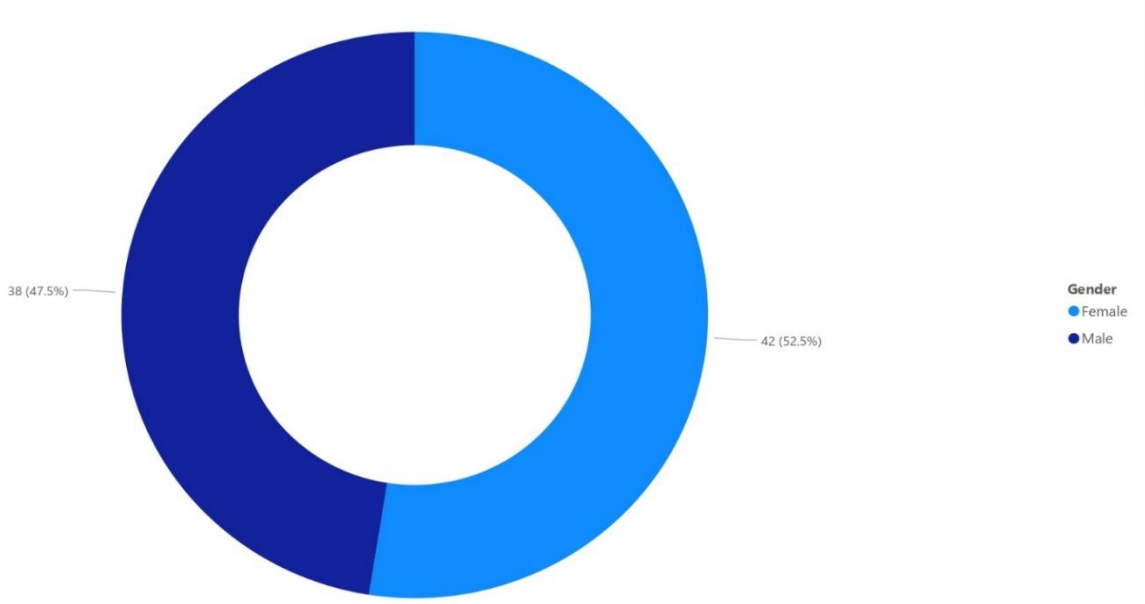

Figure 2

This chart represents the gender of the participants where 52.5% respondent are male and 47.5% of respondent are female.

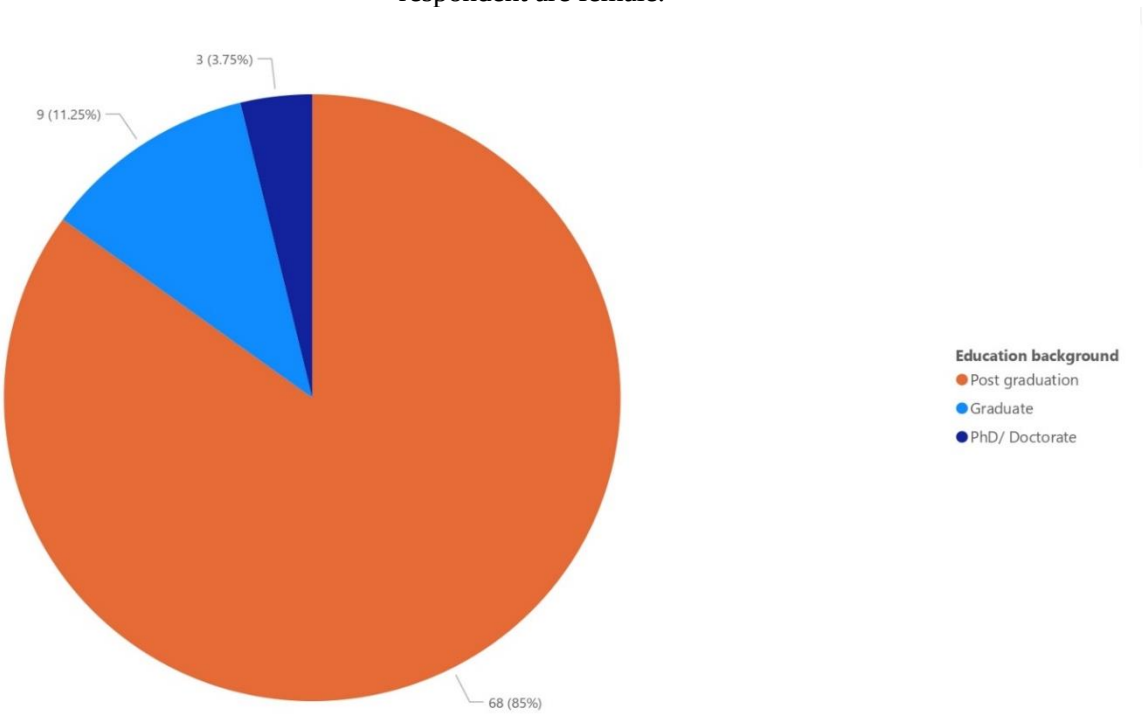

figure 3

This chart represents educational background of the respondents. Where 68% of the respondent have done postgrad and remaining 11.25% and 3.75% holds graduate and phd/ doctorate degree respectively.

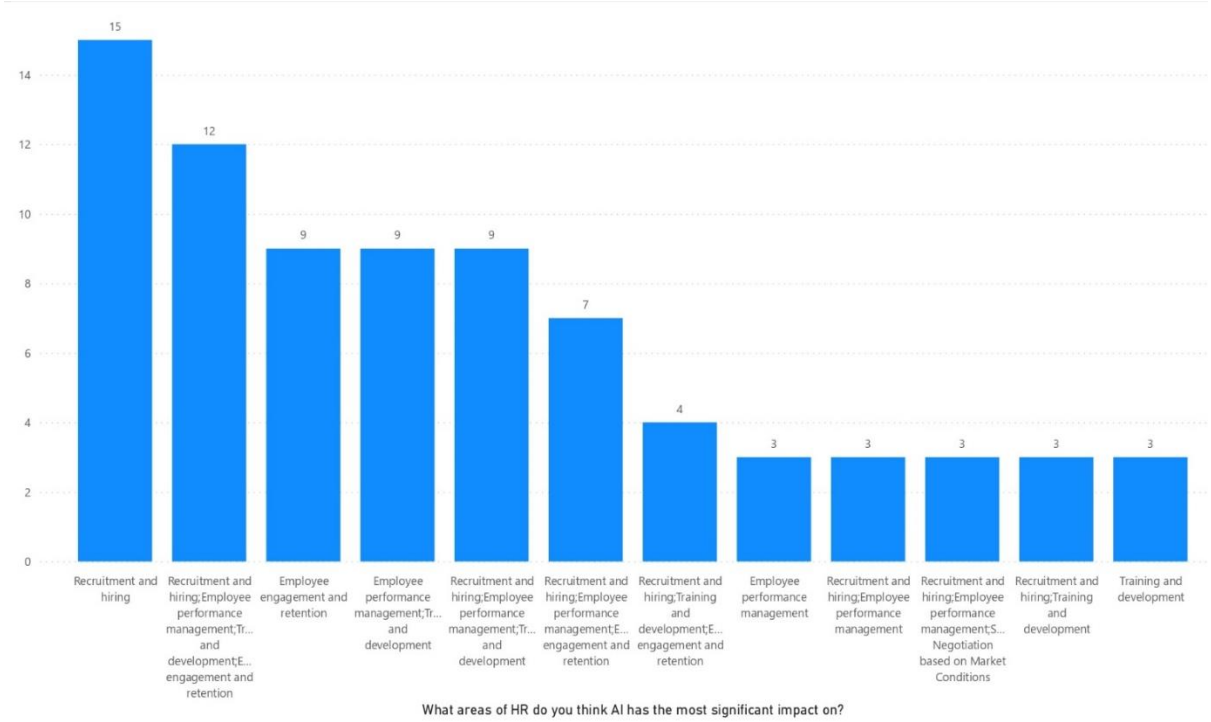

Figure 4

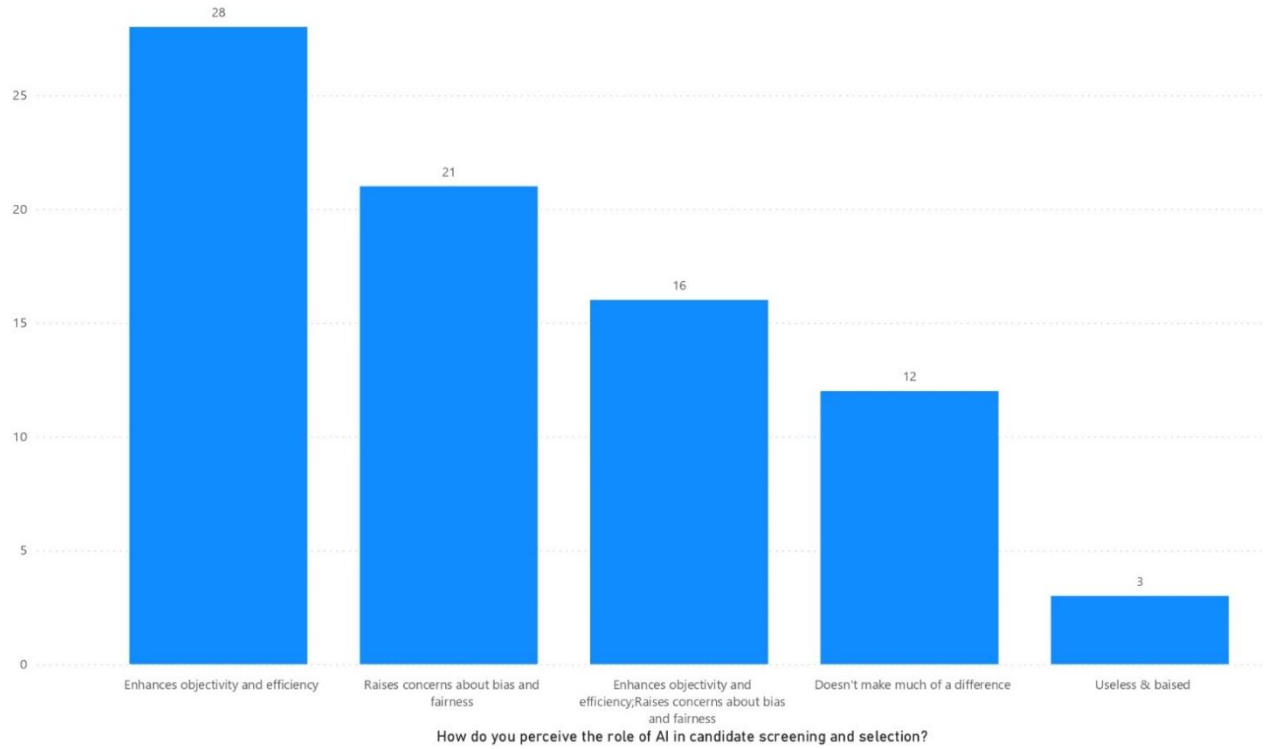

Figure 5

This chart represents the response of candidates and how they perceive the role of AI in candidate screening and selection. Where out of 80 respondent 3 consider the process useless and biased, 12 respondents thinks that it doesn't make much of a difference, 16 respondents consider that AI enhance objectivity and efficiency, 21 thinks it raises concerns about bias and fairness, and 28 thinks it increases efficiency.

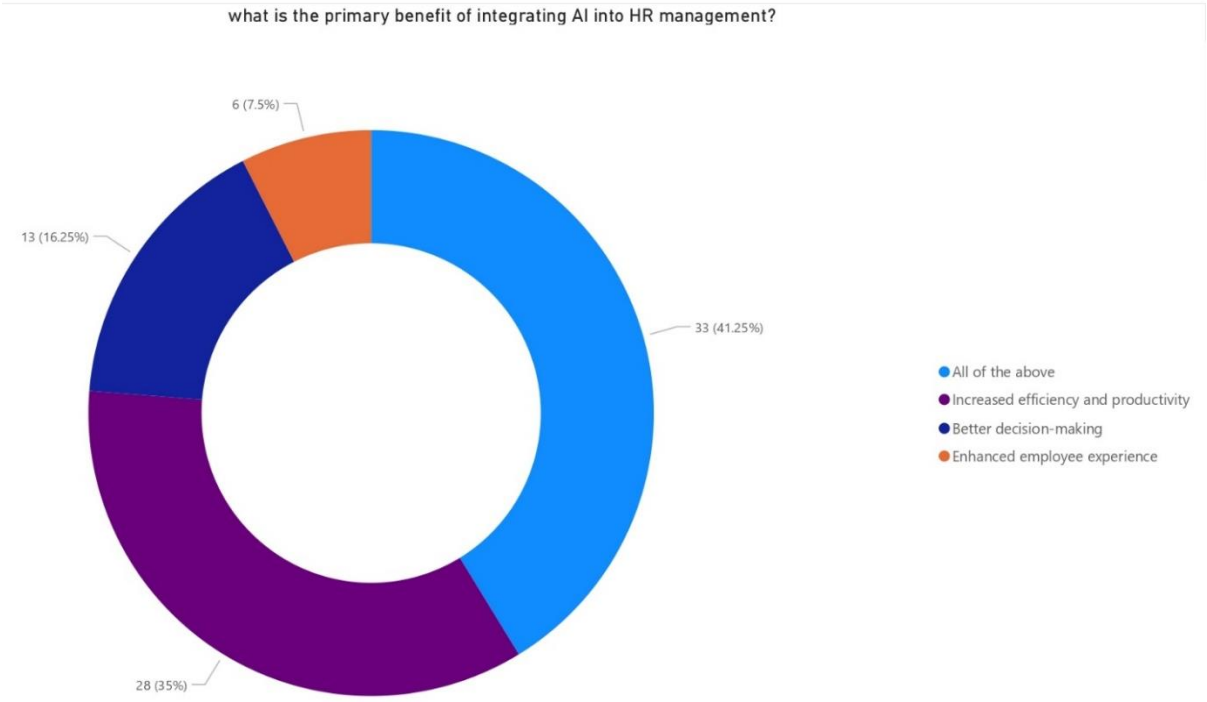

Figure 6

This chart represents the primary benefit if integrating AI into HR management. Where 28% respondents think it increases efficiency and productivity, 13% thinks it helps in better decision making, 6% thinks it enhances the employee experience and 33% think all of the above options.

1. Hypothesis 1: (Method Linear Regression)

Independent Variable: Likelihood of recommending AI adoption in HR to other organizations

Dependent Variables: Agreement that AI can streamline HR processes and improve efficiency and Familiarity with AI integration in HR

Hypothesis: Higher likelihood of recommending AI adoption in HR to other organizations positively correlates with greater familiarity with AI integration in HR along with higher agreement that AI can streamline HR processes and improve efficiency.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586[a]	.343	.326	.756

a. Predictors: (Constant), Do you agree AI can streamline HR processes and improve efficiency? How familiar are you with the integration of AI in human resource management?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.991	2	11.496	20.119	.000[b]
	Residual	43.996	77	.571		
	Total	66.987	79			

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?
b. Predictors: (Constant), Do you agree AI can streamline HR processes and improve efficiency? How familiar are you with the integration of AI in human resource management?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.370	.417		3.286	.002	.540	2.200
	How familiar are you with the integration of AI in human resource management?	-.228	.102	-.250	-2.244	.028	-.431	-.026
	Do you agree AI can streamline HR processes and improve efficiency?	.760	.123	.687	6.175	.000	.515	1.005

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?

2. Hypothesis 2:

- Independent Variable: Comfort level with AI-driven decision-making in HR

- Dependent Variables: Belief that AI can effectively analyse employee performance data and provide valuable insights, Importance of HR professionals having a good understanding of AI technologies

- Hypothesis: Higher comfort level with AI-driven decision-making in HR positively correlates with a stronger belief that AI can effectively analyse employee performance data and provide valuable insights, and with a higher importance attributed to HR professionals having a good understanding of AI technologies.

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Do you agree AI can streamline HR processes and improve efficiency? How familiar are you with the integration of AI in human resource management	.	Enter

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586[a]	.343	.326	.756

a. Predictors: (Constant), Do you agree AI can streamline HR processes and improve efficiency? How familiar are you with the integration of AI in human resource management?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.991	2	11.496	20.119	.000[b]

	Residual	43.996	77	.571		
	Total	66.987	79			

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?
b. Predictors: (Constant), Do you agree AI can streamline HR processes and improve efficiency?, How familiar are you with the integration of AI in human resource management?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.370	.417		3.286	.002	.540	2.200
	How familiar are you with the integration of AI in human resource management?	-.228	.102	-.250	-2.244	.028	-.431	-.026
	Do you agree AI can streamline HR processes and improve efficiency?	.760	.123	.687	6.175	.000	.515	1.005

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?

3. Hypothesis 3:

- Independent Variable: Personal experience with AI-powered tools or systems in HR tasks

- Dependent Variables: Comfort level with AI-driven decision-making in HR, Belief that AI can effectively analyse employee performance data and provide valuable insights

- Hypothesis: Having personal experience with AI-powered tools or systems in HR tasks positively correlates with higher comfort level with AI-driven decision-making in HR and with a stronger belief that AI can effectively analyse employee performance data and provide valuable insights.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229[a]	.052	.028	.851

a. Predictors: (Constant), Do you believe AI can help in predicting employee turnover and retention?, How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.076	2	1.538	2.122	.127[b]
	Residual	55.812	77	.725		
	Total	58.887	79			

a. Dependent Variable: Have you personally experienced AI-powered tools or systems in your HR tasks?
b. Predictors: (Constant), Do you believe AI can help in predicting employee turnover and retention?, How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.717	.345		7.884	.000	2.031	3.403
	How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions?	-.098	.113	-.115	-.864	.390	-.324	.128
	Do you believe AI can help in predicting employee turnover and retention?	-.162	.148	-.145	-1.090	.279	-.457	.134

a. Dependent Variable: Have you personally experienced AI-powered tools or systems in your HR tasks?

4. Hypothesis 4:

- Independent Variable: Likelihood to recommend AI adoption in HR to other organizations

- Dependent Variables: Comfort level with AI-driven decision-making in HR (such as in recruitment or promotions) and Belief in AI's effectiveness in analyzing employee performance data and providing valuable insights

- Hypothesis: likelihood of recommending AI adoption in HR to other organizations positively correlates with higher levels of familiarity with AI integration in HR practices, coupled with stronger agreement regarding AI's potential to streamline HR processes and enhance efficiency.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.660[a]	.436	.421	.701

a. Predictors: (Constant), How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions? Do you believe AI can help in predicting employee turnover and retention?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.197	2	14.599	29.745	.000[b]
	Residual	37.790	77	.491		
	Total	66.987	79			

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?
b. Predictors: (Constant), How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions? Do you believe AI can help in predicting employee turnover and retention?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.400	.284		4.936	.000	.835	1.965
	Do you believe AI can help in predicting employee turnover and retention?	.125	.122	.105	1.025	.309	-.118	.368
	How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions?	.544	.093	.597	5.828	.000	.358	.729

a. Dependent Variable: How likely are you to recommend AI adoption in HR to other organizations?

Hypothesis 5:

Independent Variable: Integration of AI in HR tasks

Dependent Variable: Accuracy and Efficiency of HR processes along with prediction of employee turnover and retention.

Hypothesis: Increased integration of AI in HR tasks positively correlates with both the efficiency of HR processes and the accuracy of employee performance data analysis.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.364[a]	.133	.110	.950

a. Predictors: (Constant), Do you believe AI can help in predicting employee turnover and retention?, Do you think AI can effectively analyze employee performance data and provide valuable insights?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.642	2	5.321	5.891	.004[b]
	Residual	69.546	77	.903		
	Total	80.188	79			

a. Dependent Variable: How familiar are you with the integration of AI in human resource management?
b. Predictors: (Constant), Do you believe AI can help in predicting employee turnover and retention? Do you think AI can effectively analyze employee performance data and provide valuable insights?

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound
1	(Constant)	3.313	.389		8.508	.000	2.538	4.088
	Do you think AI can effectively analyze employee performance data and provide valuable insights?	.525	.155	.407	3.395	.001	.217	.834
	Do you believe AI can help in predicting employee turnover and retention?	-.318	.156	-.244	-2.033	.046	-.629	-.006

a. Dependent Variable: How familiar are you with the integration of AI in human resource management?

Hypothesis 6:

Independent Variable: AI-driven decision-making in HR

Dependent Variable: Employee turnover and retention and Comfort level with AI-driven decision-making in HR

Hypothesis: Higher levels of AI-driven decision-making in HR positively correlate with lower employee turnover, higher employee retention, and increased comfort levels with AI-driven decision-making in HR.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.481[a]	.232	.212	.740

a. Predictors: (Constant), How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions? Do you believe AI can help in predicting employee turnover and retention?

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.691	2	6.346	11.604	.000[b]
	Residual	42.109	77	.547		
	Total	54.800	79			

a. Dependent Variable: Do you agree AI can streamline HR processes and improve efficiency?
b. Predictors: (Constant), How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions? Do you believe AI can help in predicting employee turnover and retention?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.544	.299		8.499	.000	1.948	3.140
	Do you believe AI can help in predicting employee turnover and retention?	.017	.129	.016	.136	.892	-.239	.274
	How comfortable are you with AI-driven decision-making in HR, such as in recruitment or promotions?	.389	.098	.472	3.951	.000	.193	.585

a. Dependent Variable: Do you agree AI can streamline HR processes and improve efficiency?

LIMITATIONS AND FURTHURE RESEARCH DIRECTIONS

Our study examined the effects of AI technologies, and the efficiency of Time Saving & Cost Reduction in HRM practices. While this sheds light on one aspect, there are many more potential benefits of AI in HRM that warrant further investigation. For instance, AI could also contribute to unbiased decision-making, data-driven insights, and competitive advantage.

To expand on our findings, future research could explore these additional outcomes in greater detail. We could also broaden our sample size beyond the 80 professionals we initially studied, reaching out to more diverse populations in cities like Bangalore, Hyderabad, and Mumbai. By doing so, we can gain a more comprehensive understanding of how AI is perceived and utilized across different contexts.

Furthermore, our study focused solely on one sector, which means our findings might not fully apply to other industries like Healthcare or Tourism. Exploring AI's impact in these sectors could uncover unique challenges and opportunities.

Looking ahead, it would also be valuable to investigate the challenges associated with implementing AI in HRM practices. Understanding these hurdles can inform strategies for successful integration and optimization of AI technologies.

Finally, delving into the motivational factors behind AI adoption in various sectors and industries could offer valuable insights. By understanding what drives organizations to embrace AI, we can better support and facilitate its adoption for maximum benefit

CONCLUSION

In today's fast-paced business landscape, industries are experiencing remarkable expansion, but with it comes the challenge of keeping up with constant advancements. To stay ahead, companies are turning to new technologies to simplify everyday operations and boost productivity. And it's not just industry insiders—experts and practitioners alike are championing the integration of artificial intelligence (AI) tools and digital solutions.

Across sectors, companies are embracing AI and machine in their HR departments to tackle a range of tasks. From recruitment and selection to performance analysis and real-time data provision, these technologies are revolutionizing how HR functions. With AI at their side, HR professionals can make more informed decisions, streamline processes, and provide accurate, up-to-date information to support organizational success.

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