

ROLE OF ARTIFICIAL INTELLIGENCE IN RECRUITMENT PROCESS AMONG SMALL AND MEDIUM ENTERPRISES (SMES) IN PAKISTAN

MUHAMMAD ADNAN SIAL¹; ASRAR AHMED SABIR^{2*}; ATIA AFTAB³; MUHAMMAD WASIM ABBAS⁴; MAHA ASGHAR⁵; HUMNA ASGHAR⁶

^{1,2}ASSISTANT PROFESSOR, DIVISION OF MANAGEMENT AND ADMINISTRATIVE SCIENCE, UE BUSINESS SCHOOL (UEBS) UNIVERSITY OF EDUCATION LAHORE

^{3,4}LECTURER, DIVISION OF MANAGEMENT AND ADMINISTRATIVE SCIENCE, UE BUSINESS SCHOOL (UEBS), UNIVERSITY OF EDUCATION LAHORE

⁵RESEARCH SCHOLAR, DIVISION OF MANAGEMENT AND ADMINISTRATIVE SCIENCE, UE BUSINESS SCHOOL (UEBS) UNIVERSITY OF EDUCATION LAHORE

Corresponding author: asrar.ahmed@ue.edu.pk

ABSTRACT

This study examines that the role of artificial intelligence (AI) in recruitment process described that the technological transformation by improving the hiring process that deliberate the essential proficiency, reduce bias and fairness. Decision making in recruitment process is also advanced by using AI that distribute advanced invisible capabilities for efficiency and creativity, from streamlining routine tasks. AI's applications across industries and set the stage for its development formed by the John McCarthy's transformative work. Small medium sized enterprises (SMEs) are focused on hiring practices in, effects of AI on employee engagement, morale, performance, and organizational culture are investigates in this study. Technology Acceptance Model are used in theoretical framework and also examined how tech skills and HR's changing role affect the use of AI tools. Additionally, it looks how employee engagement mediate the relationship between AI and recruitment outcomes. HR professionals from SMEs used the quantitative approach and also used Structural Equation Modeling (SEM) to validate seven hypotheses. For the better recruitment process AI perform positive role strongly, at the findings, employee engagement and HR strategic involvement are increased proficiency from the employee engagement mediation. From the acceptance of AI in recruitment process are found to be greatly obstructed by ethical issues such algorithmic bias, data privacy, and fairness. Furthermore, demographic factors, including age, education, and gender are determined by the found that user awareness and uptake of AI products. AI-driven hiring practices that support long-term performance goals and organizational values are provides practical advice on developing human-centered, ethical by the HR executives and legislators.

Keywords: Artificial Intelligence (AI), Recruitment, Technology Competence, Employee Engagement, Small Medium sized Enterprises (SMEs).

INTRODUCTION

In the modern digital word, businesses try to be incredibly innovative, globally competitive, and operationally capable by increasing output and profitability while reducing the workforce. As a result, businesses need to spend money on educating both new and experienced staff members to use current hardware and software. "Artificial Intelligence (AI)," which has its background in John McCarthy's innovative book "Computing Machinery and Intelligence," is one new technology that has the capacity to completely transform a number of sectors. In the field of information technology, the idea of "Artificial Intelligence (AI)" is fairly new.

AI, which is explained as "an adaptable, rational agent that observe its environment and takes actions to increase its chances of achieving a particular goal," promises to do data analysis, reduce staff workloads, and simplify operations, among other things. Continuously merging human labor with machine capabilities, integrating AI advances quicken improvements in methods of workforce management. AI technologies are being used more and more by HR departments in both developed and developing countries to advance the hiring, employee engagement, and talent management processes. Major cost savings, improved candidate selection reliability, and—most importantly—a shorter change time for hiring processes have all resulted from its adoption. Digital tools and platforms were introduced as a result of changes in the HR view brought about by technological advancement online employment boards, as

computerized communication channels and applicant tracking systems (ATS) expanded, HR specialists were able to quicken some parts of the hiring process (Gonzalez et al., 2020). The foundation of human resource management is recruitment, which is the process of finding and attracting capable applicants (Edwin B).

This study explores that the artificial intelligence (AI) impact on employee performance, morale, and organizational culture and also explore that the ethical consideration of integration of AI in recruitment process such as algorithmic bias, data privacy, fairness, and transparency in AI-driven recruitment processes. Moreover, this study examines the perceptions and acceptance of AI tools among job seekers and employees, considering demographic diversity and candidate experience.

The significance of this study is rapidly evolving workplace of today, where artificial intelligence (AI) is being involved to organizational process more frequently, particularly in recruitment and human resource management, this study is incredibly important.

Objectives of this Study:

- To examines the impact of AI on employee performance, morale, and organizational culture.
- To examines the ethical consideration of AI such as algorithmic, data privacy, fairness and transparency in AI-driven recruitment processes.
- To examine the perceptions and acceptance of AI tools among job seekers and employees, considering demographic diversity and candidate experience.

LITERATURE REVIEW

Artificial intelligence has been used by a vast range of businesses to help with the employment process since 2018. It is predicted that this pattern will continue (Upadhyay and Khandelwal, 2018). Discover a professional career has never been easy candidates with the highest qualifications for obtainable positions. Today, most people spend a significant amount of time on social media sites like Facebook, Instagram, and Twitter, which have become crucial in most people's daily lives. Users express a wide range of viewpoints on these platforms (Van Esch & Black, 2019). To reach a larger audience, one recruiter made the decision to start advertising open opportunities on social media. However, this results in a overflow number of applications, making it challenging for human resources to rapidly identify the applicants who are the most appropriate for the offered positions (Michailidis, 2018). The cost and capability of paying numerous recruiters to review and evaluate the hundreds or thousands of applications received was unlawful seeking only one job. Furthermore, digital technologies are significantly more effective and efficient than humans (Van Esch & Black, 2019).

Companies like Textio are applying AI to help personalize job narratives and ads to each individual client (Van Esch & Black, 2019). Additionally, L'Oréal used AI to modify the discriminatory language in the advertisement, which resulted in an equal number of applications from men and women (Sharma, 2018). Thanks to the Applicant Tracking System (ATS), an artificial intelligencepowered tool that scan resumes, it is possible that the top candidates will be matched with the best opportunities. AI-powered chatbots are also becoming more over common in the human resources industry. These chatbots can interact with perspective hires via social media, email, text messaging, and other platforms to offer help and answer queries. Machine language processing is used by these chatbots to understand human oral expressions and interact with clients in an almost humanlike fashion, complete with contextual expressions, symbols, feelings, etc. (Nawaz & Anjali, 2019). Despite the fact that AI has been generally recognized for increasing efficiency, boosting candidate-job match, and shortening recruiting timelines, that's why the majority of studies point out the dearth of thorough empirical data addressing long-term consequences on employee performance, morale, and retention. In light of various cultural, industrial, and legal settings, the effects of AI on diversity, inclusion, and equity in recruiting practices are also not well examined. They only provide a few theories or techniques for reducing these risks so while many articles highlight ethical issues such algorithmic bias, data privacy, and transparency.

Moreover, concentrating on discrete steps in the hiring process (such as interview automation and resume screening) without incorporating these stages into a comprehensive model by the research that is currently available is often disjointed. Furthermore, emerging economies and underrepresented industries caused by cross-cultural and sector-specific assessments are noticeably lacking. Additionally, the relation to acceptance, trust, and the perceived fairness of AI tools by the understudied are the viewpoints of HR professionals and job searchers.

THEORETICAL FRAMEWORK:

Davis (1989) developed the Technology Acceptance Model (TAM), which offers a theoretical framework for appreciating how new technologies are adopted and accepted in a numerous of settings, including human resources management. According to TAM, perceived utility and perceived ease of use are two important characteristics that affect a person's tendency to utilize a technology. According to Davis (1989), perceived usefulness is the degree to

which an individual thinks that modifying a specific technology would improve their performance at work, while user friendliness is the degree to which an individual thinks that using the technology will be easy. TAM can assist in clarifying the elements that impact HR professional's choices to adopt AI-powered technologies in the context of AI adoption in HR recruitment the possible obstacles to adoption.

There are some research questions that implement in this study.

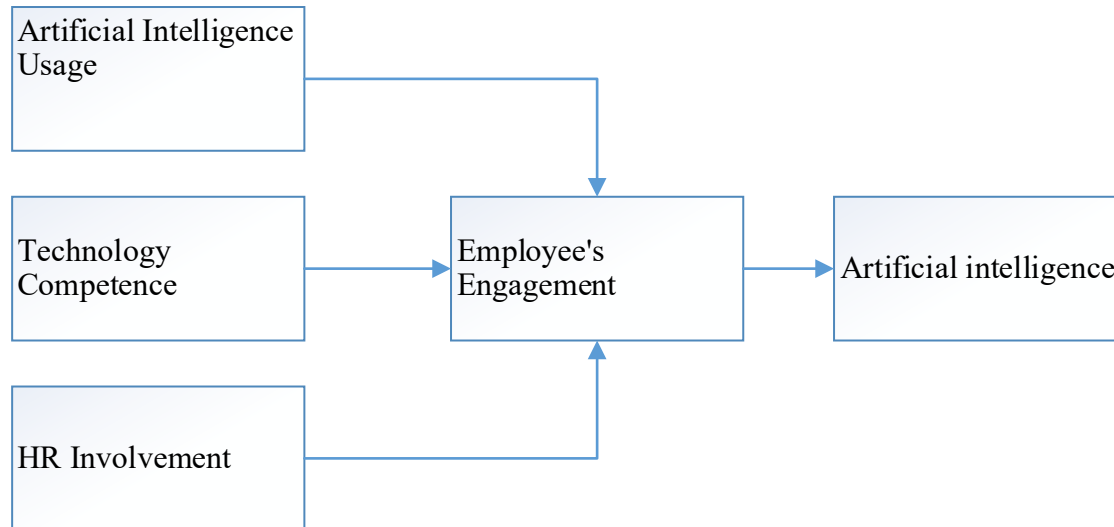


Fig1.1: The Conceptual Model

Study Hypotheses:

Artificial Intelligence Usage and Employee Engagement:

Artificial intelligence (AI) is making revolutions in human resource management in the current era, especially in the hiring process. Many small businesses are now using AI driven tools for higher employees, these tools help them to make hiring process fast to save money and finding the best candidates. Another benefit is that Ai can boost employee engagement. Employee engagement means engagement how committed and motivated employees are to their company. AI can help us improve this by making the hiring process better. It can match people to job more accurately speed up hiring and make the experience more enjoyable for candidates that resulted in more satisfied employees. Ai tools like chatbots and resume screening software help companies to make informed hiring decisions and choose candidates who fits well with the company's values and culture.

Therefore, The Employee Engagement and Artificial intelligence usage is hypothesized as;

H1 = the Artificial intelligence usage has positive impact on employee engagement.

Technology Competence and Employee Engagement:

Adopting new Technology SMEs demonstrate adaptability and a willingness to evolve leading to a more committed and loyal workforce. (Singh & Hess, 2017). In addition, technology proficiency creates a culture of long-term learning. Workers at SMEs with advanced technology required to get assistance and instruction in utilizing AI technologies, which will improve their abilities and self-assurance. By strengthening the psychological assistance between the employer and employee, this investment in employee development increases loyalty and engagement. According to Saks (2006), employee engagement is significantly predicted by perceived organizational support and advancement prospects. Finally, technological competence helps reduce frustration and resistance to change. Adoption of AI may cause uncertainty or fear of job displacement in technologically under pressure of top managers at their subordinates. Therefore, they must develop a supportive communication channel that reduce uncertainty and fear among employees. However, AI is viewed as an augmentation tool rather than a replacement in capable businesses. When workers see how AI improves their position rather than threatening it, they are more willing to adopt it, which increases engagement and morale.

Therefore, based on past studies and descriptions, the relationship between Technology competence and employee engagement is hypothesized as:

H2 = Technology competence has positive impact on employee engagement.

Degree of change for HR involvement and Employee Engagement:

Ulrich et al. (2012) claim that this kind of transition from administrative to strategic HR responsibilities perfectly fits between organizational objectives and worker demands, which raises employee engagement. New hires feel a part of the company and feel valued more, the more HR influences recruitment strategy, including develop talent, assisting with onboarding, and personalizing communications. The extent to which HR involvement has changed also improves

engagement by encouraging equity, fair decision making and diversity. AI can handle data-driven decision-making, freeing up HR experts to concentrate on diversity, ethical hiring, fair reward system and alignment with company's values. Employees are more likely to trust the company and feel emotionally connected with company and invest more skills and expertise when they believe that the hiring and onboarding procedures are open, honest, and equitable (Colbert, Yee, & George, 2016). Stronger engagement results from employees feeling that their company appreciates them in a good manner more than just ordering them by following strict guidelines and procedures.

Additionally, AI gives HR teams the ability to extract best insights from data screening, which enables them to be proactive in finding the best candidates and creating interesting onboarding experiences. Predictive analytics, for example, can show which applicants are most likely to succeed and best fitted for particular positions, enabling HR to adjust support initiatives appropriately. HR professionals have a direct impact on forming an employee's early experience, which is one of the most crucial times for creating trust for long-term engagement, by participating in such data-backed decision-making (Bersin, 2019).

As a result of AI adoption HR department is continuously in evolving position that encourages continued engagement through staff development. HR may spend more time on skills development training, career path planning, and feedback systems now that administrative duties are being delegated to AI. These actions are responsible to increase employee engagement because they show that their company values their development (Saks, 2006). Workers are more likely to stay engaged and devoted if they perceive human resources as a helpful, approachable, and development-focused department. HR's strategic involvement delivers substantial value for SMEs with limited resources. HR professionals will become more responsive at managing engagement proactively rather than reactively as they adjust to this AI-driven shift. The transformation in HR's involvement is not just structural, but also cultural, with an emphasis on relationship-building, development, and empathy all of which have a direct positive impact on employee engagement.

Therefore, based on past studies and descriptions, the relationship between HR involvement and Employee Engagement is hypothesized as:

H3 = The degree of change for HR involvement has positive impact on employee engagement.

Employee Engagement and Recruitment Through AI

Particularly in small and medium-sized businesses (SMEs), employee engagement which is defined by the degree of emotional dedication, passionate and skilled individuals feel for their organization plays a critical role in determining a meaningful recruitment process. The human component of employee engagement is still a key factor in successful hiring, even as AI technologies and algorithms are revolutionizing the efficiency of the hiring process. AI can never replace humans. So, humans working is also necessary. Therefore, Employee engagement improves recruitment performance, creates a favorable company's culture, and turns employees into brand advocates. Positive corporate branding is one of the most influential ways that motivated workers affect hiring. Employees will automatically spread the positive worth about the business via professional networks, social media, and word-of-mouth when they are happy and invested in it. This natural promotion enhances the business's standing and draws in top people, particularly in the highly competitive SMEs' hiring market.

This phenomena gives rise to a highly competitive business environment. Employee's attitudes and perceptions have a big impact on an organization's appeal to candidates who are searching for jobs (Claim Cable and Turban, 2003). To put it simply, a highly engaged workforce tells prospective employees that the company is a great place to work and it's the best opportunity for new potential candidates. The opinions and recommendations of involved workers can also directly impact the improvement of digital recruitment tools and procedures in AI-enabled hiring settings. AI models can be trained on cultural fit, ideal applicant profiles, or onboarding procedures, for instance, using information from current employees. Their active involvement guarantees that AI solutions are more aligned with organizational reality, improving the efficiency and accuracy of hiring (Bersin, 2019). Therefore, both the factors crucial and these factors like technology and human elements of hiring are supported by employee involvement.

Employee engagement also increases the likelihood of hiring best potential candidates that they will take part in recommendation programs, which are a crucial source of new hires for SMEs. Because current employees provide credibility and context, referred applicants typically have stronger cultural alignment and fast onboarding process (Van Hoyer, 2012). A sense of pride and belonging is developed by high employee's engagement levels, which reduces the likelihood of employees turnover. When all the employees are fully satisfied with their organization they will refer the business to others and aid in getting highly qualified candidates. Additionally, engagement is essential for persistency and employee retention, both of which indirectly improve recruiting. SMEs are sometimes burdened with increased expenses and frequent hiring requirements due to turnover rates increases.

Conversely, high levels of engagement lead to better retention and long-term relationships with their organization which lowers the pressure on hiring teams. As opposed to continuous reactive recruitment, this enables more strategic and successful hiring process (Saks, 2006). A steady and highly motivated team offers continuity in performance and culture, which draws positive impression on new applicants. The candidate's experience is another important component. Positive, human-centered interactions with applicants are more likely to be provided by engaged staff members, especially in HR and recruitment positions. Although much of the automation is handled by AI systems,

applicants still value communication, empathy, and adapted encounters elements driven by HR teams' mentalities. Even if they are not chosen, candidates who have a favorable experience with the hiring process are more likely to recommend the business favorably, boosting its standing and enhancing application rates in the future (Walker et al., 2010).

Therefore, based on past description the relationship between employee engagement and recruitment process is hypothesized as:

H4 = Employee engagement has positive impact on recruitment through AI.

Employee Engagement mediate the relationship between Artificial Intelligence (AI) usage and Recruitment:

Artificial Intelligence (AI) has brought to the hiring process great innovation and higher efficiency that proved beneficial for Small and medium sized enterprises SMEs. AI-powered solutions including chatbots-assisted communication, predictive analytics, and automatic resume screening assist SMEs plays a key role in improving applicant experiences, cutting expenses, and streamlining hiring procedures. However, if they want to achieve the best hiring outcomes it requires more than just implementing AI. We should combine human activities and specialties with latest technology. In order to convert the technological benefits of artificial intelligence into real recruitment success, employee engagement plays a crucial mediating function. When a third variable employee engagement explains how an independent variable (AI) affects a dependent variable (recruitment), mediation has taken place. In this case, artificial intelligence (AI) improves hiring efficiency not just by automating by its capacity to enhance employee engagement, which in turn leads to better recruitment results. AI enhances hiring managers and HR professional's job satisfaction and sense of value two important components of engagement is determined by eliminating repetitive duties and freeing them up to concentrate on strategic and human-centered activities (Kavanagh, Thite, & Johnson, 2020). When we talk about hiring process, engaged HR personnel are more significant, considerate, and quick to respond.

Employee engagement and psychological commitment increases when they see that their opinions are being considered while making informed decisions. In response, engaged workers become powerful brand ambassadors and proactive recruiters, especially in SMEs where employee recommendations and word-of-mouth marketing are necessary (Van Hoyer, 2012). Additionally, interactions with engaged employees have a greater impact on how candidates are handled. Although AI might increase productivity, human interaction, highly engaged and data driven workers, that results in better relationships, trust, and employer loyalty. Candidates are more likely to have a positive opinion of the company, accept offers, and refer people to it when they engage actively with recruiters (Cable & Turban, 2003). Therefore, throughout the hiring process, employee engagement serves as the emotional and experiential link that benefitted the role of AI more accurately.

Finally, engaged workers are more inclined to accept AI tools than employees who resist the use of Ai at their workplace. SMEs frequently face resistance to technological change, however when staff members are motivated and recognize how AI may improve their work, meaningful, utilization and adoption rates increases. AI and human capital are best combination. They work together to optimize applicant happiness and making recruitment process more effective (Colbert, Yee, & George, 2016).

Therefore, based on past description the relationship among employee engagement, Ai and recruitment is hypothesized as:

H5 = Employee engagement mediate the relationship between AI usage and recruitment.

Employee Engagement mediate the relationship between Technology Competence and Recruitment Through AI

For SMEs technical competencies is crucial for successful AI integration in hiring. However, the link between Tech professionals and better hiring outcomes is not direct. Employee Engagement plays a key role in bridging this gap, significantly influencing the better outcome. Technical competence enhances recruitment capabilities by enabling SMEs to utilize AI like applicant sourcing, screening and communication. However, tech proficiency alone is not enough, employee motivation is important to drive its benefits. (Tarhini et al., 2015) Highly engaged employees are more likely to adopt and effectively use AI tools, aligning them with company's core values and goals and getting better hiring outcomes. Strong technological proficiency shown by a SME communicates the message to staff members that their company is innovative and forward-thinking. Engaged workers are more flexible and comfortable in using AI tools when practical training is provided by their organization.

Then technology alters the nature of hiring tasks, and prepared to upskill or reskill in order to satisfy new requirements. This flexibility guarantees that technological proficiency and hiring efficacy are consistently matched (Singh & Hess, 2017). Additionally, motivated staff members take part in employer branding initiatives, which are frequently made possible by technology, and serve as cultural ambassadors. Through recommendations and endorsements, they assist in building a strong online presence and draw in top talent, particularly in SMEs where hiring decisions are heavily influenced by employee opinions and reputation (Van Hoyer, 2012). As a result, their involvement increases the effect of technology on hiring success.

Therefore, based on past description the relationship among Employee Engagement, Technology Competence and recruitment is hypothesized as:

H6 = Employee engagement mediate the relationship between technology competence and recruitment through AI.

Employee Engagement mediate the relationship between The Degree of Change for HR involvement and Recruitment through AI

The function of human resources (HR), particularly in small and medium-sized businesses (SMEs), is being drastically changed by the introduction of artificial intelligence (AI) into hiring procedures. As repetitive and transactional recruitment tasks are replaced by AI, HR professionals are expected to concentrate more on the human-centered and strategic elements of hiring. This adaptation represents a certain level of HR involvement, which can improve hiring resulting in better hiring process. However, it is occurred only when employee engagement serves as a mediating factor that the full benefits of this shift are realized.

This proactive approach enhances employee-employer fit, streamlines hiring, and boosts candidate satisfaction. Furthermore, motivated HR staff members contributes to the development of an innovative and dynamic, culture, which in turn motivates other staff members to take part in hiring initiatives through peer interviews, social media advocacy, and referrals. This all-encompassing strategy improves the hiring procedure and increases the organization's appeal to outside talent (Cable & Turban, 2003).

Therefore, based on past description the relationship among Employee Engagement, degree of change for HR involvement and recruitment process is hypothesized as:

H7 = Employee engagement mediate the relationship between the degree of change for HR involvement and recruitment through AI.

RESEARCH METHODOLOGY

Research Design

Quantitative techniques were employed in this study. Seven hypotheses were established to investigate the links between technology competence, employee engagement and the degree of change for HR involvement and the perceived influence of recruitment using AI with the use of statistical tools (SPSS) and (Amos), which aided in drawing conclusions, the survey was created and disseminated in order to evaluate the results produced and test the hypotheses.

Participants and Procedure

HR managers and staff members engaged in the hiring process at Small Medium Sized Enterprises (SMEs) are the focus of this study. SMEs are selected because of their complex use of AI in hiring, which provides a diverse and international setting for examining the effects of AI. Employees who actively participate in recruitment activities were given surveys after HR managers from a few chosen multinational corporations gave their approval for data collecting. Participants who were easily available were chosen using a convenience sample technique. With an emphasis on AI integration, hiring effectiveness, employee engagement, and HR involvement, the study sent out 500 surveys.

Instrumentation

A two-section survey questionnaire was employed in the investigation. Demographic information, such as gender, age, education level, and work experience, was collected in the first part. Employee engagement, HR involvement, AI integration in recruiting, and recruitment outcomes were the main constructs that were measured in the second phase. Respondents answered questions about the application of AI tools in applicant screening and selection in order to measure AI integration. Questions about how SMEs hiring technologies load up against industry norms were used to measure technology competence. Items addressing how AI adoption affects employee's motivation and involvement in the hiring process were used to measure employee engagement. The role of HR specialists in hiring following the implementation of AI was used to measure HR involvement. Lastly, the effectiveness, quality, and satisfaction of the hiring process were assessed in relation to the results of the recruitment process. A five-point Likert scale was used to rate every item.

Data Analysis

AMOS version 20's Structural Equation Modeling (SEM) tool are used to test the proposed correlations between variables, and data. The first of two main phases are Confirmatory factor analysis (CFA), which evaluates the validity and reliability of constructs (such as composite reliability, Cronbach's alpha, convergent validity, and discriminant validity). Second, using Maximum Likelihood Estimation (MLE) are used to the proposed connections between AI, employee engagement, HR involvement, and recruiting outcomes were assessed. Furthermore, using the self-starting approach to evaluate 2000 samples and 95% confidence intervals to ensure reliable statistical results, and indirect effects.

RESULTS AND DISCUSSION

Factor Loading

Factor Loadings				

	AI Usage	Degree of change for HR Involvement	Employee Engagement	Recruitment Through AI	Technology Competence
AIUS1	0.873				
AIUS2	0.806				
AIUS3	0.893				
DCHR1		0.798			
DCHR2		0.853			
DCHR3		0.872			
EMEG1			0.813		
EMEG2			0.877		
EMEG3			0.887		
EMEG4			0.887		
EMEG5			0.852		
REAI1				0.769	
REAI2				0.838	
REAI3				0.764	
REAI4				0.785	
REAI5				0.685	
TCOM1					0.873
TCOM2					0.858
TCOM3					0.877

The factor loadings table reflects the measurement model for five constructs: AI Usage, Degree of Change for HR Involvement, Employee Engagement, Recruitment Through AI, and Technology Competence.

R-square values and effect sizes (f²)

	R-square	R-square adjusted			
Employee Engagement	0.281	0.275			
Recruitment Through AI	0.319	0.317			
	Effect size				

	AI Degree of Usage change for HR Involvement	Employee Engagement	Recruitment Through AI	Technology Competence
AI Usage		0.102		
Degree of change for HR Involvement		0.018		
Employee Engagement			0.469	
Recruitment Through AI				
Technology Competence		0.05		

The table below shows the effect sizes and R-squared values of the structural model. However, employee engagement and recruitment have R-squared values of 0.281 and 0.319, indicating 28.1% and 31.9% of variance as predictors in the model. However, the effect size shows employee engagement is the main indicator of AI-based recruitment, with the support of technology competence.

The measurement model

	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
AI Usage	0.821	0.893	0.737
Degree of change for HR Involvement	0.794	0.879	0.708
Employee Engagement	0.914	0.936	0.746
Recruitment Through AI	0.827	0.879	0.593
Technology Competence	0.839	0.903	0.756

	AI Usage	Degree of change for HR Involvement	Employee Engagement	Recruitment Through AI	Technology Competence
AI Usage					
Degree of change for HR Involvement	0.562				

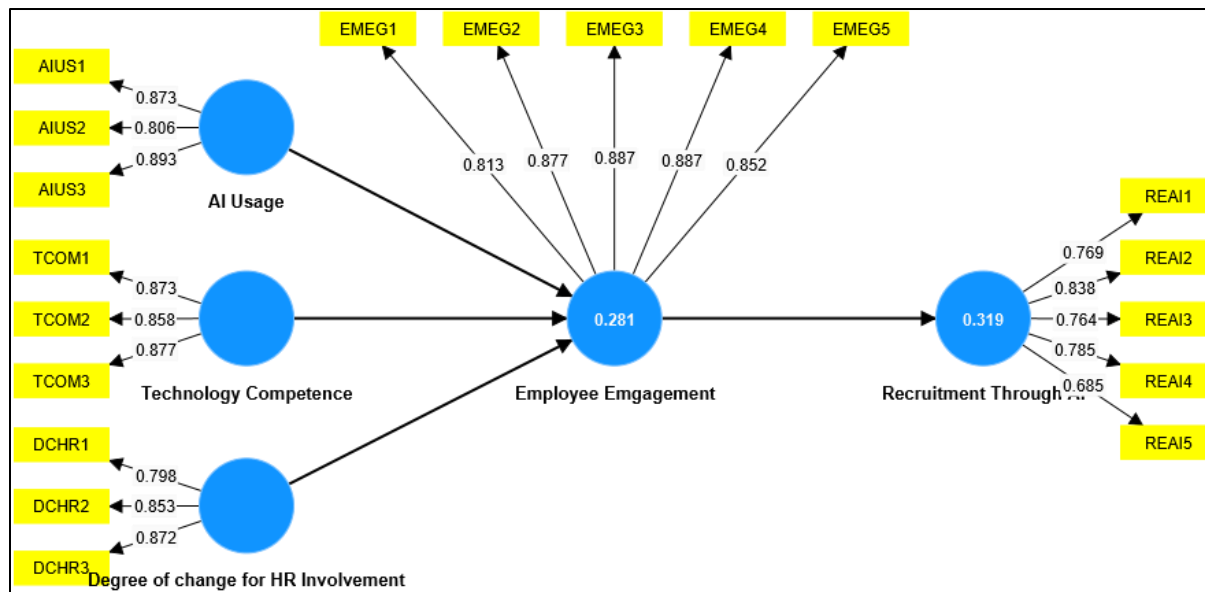
Employee Engagement	0.528	0.43			
Recruitment Through AI	0.661	0.525	0.646		
Technology Competence	0.481	0.533	0.455	0.571	

The validity and reliability are presented with the help of a measurement model. The study construct shows composite values of 0.79 that confirm the reliability. These constructs also show Cronbach's alpha and internal consistency. Moreover, Average Variance Extracted is high and meets the threshold values of 0.593, which supports the convergent validity.

The path coefficients and mediation effects

	path	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
AI Usage -> Employee Engagement	0.313	0.081	3.838	0.000
Degree of change for HR Involvement -> Employee Engagement	0.135	0.058	2.343	0.019
Employee Engagement -> Recruitment Through AI	0.565	0.065	8.632	0.000
Technology Competence -> Employee Engagement	0.218	0.064	3.424	0.001
AI Usage -> Employee Engagement -> Recruitment Through AI	0.177	0.052	3.399	0.001
Degree of change for HR Involvement -> Employee Engagement -> Recruitment Through AI	0.076	0.035	2.179	0.029
Technology Competence -> Employee Engagement -> Recruitment Through AI	0.123	0.044	2.774	0.006

The mediation effects and path coefficients are presented in this table. The P value is below 0.5, which shows the significance level. The mediation also has indirect effects of HR involvement, AI usage and technology competence on the recruitment process via employee engagement. However, employee engagement plays a mediator role in HR changes and technological changes to further enhance AI-driven recruitment.



Research Findings

This research findings will be discussed three main components of the problem statement that are following;

Impact of Artificial Intelligence on Employee Performance, Morale, and Organizational Culture

Both potential and difficulties in terms of worker morale and performance are brought up by the AI integration in the workplace. Simplifying monotonous work and freeing up staff members to concentrate on more strategic duties so research shows that AI-powered solutions like process automation, predictive modeling, and performance analytics can greatly increase efficiency (Brougham & Haar, 2018). Marketing, IT, and finance have resulted from measurable performance gains in data-intensive sectors. Morale is more complex by the impact of AI on staff, though. Value the efficiency and innovation AI offers while others some workers worry about job displacement and surveillance (Fountaine, McCarthy & Saleh, 2019). Result of replacing human roles, especially in routine and operational roles are concern by AI could some workforce segments have experienced concern and a decline in morale.

Organizational culture also effects on AI integration. It can occasionally compromise the human centered elements of workplace relations by the move to data-driven decision-making promotes efficiency and objectivity. By investments in communication and employee engagement businesses are use AI runs the risk of creating a culture of resistance or mistrust if it is not accompanied (Duan, Edwards & Dwivedi, 2019). Therefore, the successful deployment of AI are depend on open communication tactics and upskilling programs to aid in cultural adaptation.

Ethical Considerations in AI-Driven Recruitment: Algorithmic Bias, Data Privacy, Fairness, and Transparency

The use of AI in recruitment procedures, particularly in resume screening, chatbots for candidate contact, and predictive analytics for candidate success by talent acquisition has been expedited. Urgent moral issues are brought up in it.

Algorithmic bias is one of the most important problem. Historical data may unintentionally reproduce and strengthen preexisting biases by AI programs that have been educated. Therefore, referred male applicants, Amazon's AI recruitment tool, for example, was found to be biased against female candidates it was educated on data (Dastin, 2018). Biases may arise unfair discrimination on the basis of gender, ethnicity, age, or educational background. Data privacy issues the vast amounts of data that AI systems gather and examine give rise to. Candidates frequently submit private and sensitive information, which might be misused and breached if improperly safeguarded (Tambe, Cappelli & Yakubovich, 2019). GDPR and guarantee security procedures, data minimization, and informed permission that laws abide by company's need.

Being examined are also AI decision-making's impartiality and openness. HR experts find it difficult to comprehend how AI makes decisions and there is a lack of trust in automated results since many candidates. May make accountability difficult to see by decision criteria in black-box algorithms are not transparent. Recent initiatives in explainable AI (XAI) seek to lessen this by improving the interpretability of AI decision-making processes, (Lipton, 2018). AI systems, set up auditing procedures, and keep a human in the loop to ensure justice and accountability, organizations using AI in hiring must incorporate ethical frameworks.

Perceptions and Acceptance of AI Tools Among Job Seekers and Employees

A substantial impact on how AI tools are seen and accepted by the demographic variables including age, educational attainment, and past experience with digital tools. Typically, more receptive to AI-driven hiring, considering it to be modern and effective but for those job searchers who are younger, especially those in technology-related sectors

(Nikolaou, 2021). On the other hand, find the procedure opaque and impersonal by the older applicants or those without technical training. A key factor in acceptance is the experience of the candidate. When they connect with AI tools in a fast, tailored, and responsive manner candidates express greater pleasure. But when applicants trust is damaged and they believe their evaluation is unfair when people think AI interactions are robotic. Being open about how AI assesses applications and whether human oversight is present by user acceptance can be increased.

Demographic variety by perception is also affected. Because AI techniques can be less trusting of worries about systemic prejudice, candidates from minority groups. Research indicates that open and honest communication regarding the fairness of AI systems greatly increases acceptance and trust (Raghavan et al., 2020). How AI works, and offer channels for appeals and feedback in order to promote widespread adoption organizations must create inclusive AI systems, be transparent.

CONCLUSION

This study investigates the Artificial Intelligence (AI) has the potential to revolutionize hiring and labor management, particularly for small and medium-sized businesses (SMEs). HR staff members to work on strategic, people-centered projects that are used Artificial Intelligence (AI) tools like chat bots, resume screening, and predictive analytics greatly improve job-candidate matching, expedite the hiring process, and free up. Hiring outcomes, employee engagement and the company's reputation are increase when AI is used properly. Adoption of AI tools requires inclusivity equity, openness, and promoting favorable opinions. With the help of human centered strategy, the long-term success in business can be achieved by using the AI in stakeholder's decision-making. AI used in incorporating to control human's skills, which helps in building equity and diversity for both job researchers and employees to meet their long-term goals. The findings suggest that, the use of HR practices and technology in the form of AI can boost employee engagement which in turn enhances outcomes while hiring. AI characteristics and recruitment performance play an important role in human engagement and the successful hiring process. To promote the AI in hiring that supports their ongoing training, leadership and open communication. Companies used a moral and human centered strategy to make sure AI will improve rather than divert from the hiring process. With the help of data governance and training in cross functional corporations are necessary for implementation of engagement tactics and cultural adaptation. The employers must gain a competitive edge for employee satisfaction to boost their workforce for future incorporating the ethical practices into hiring.

REFERENCES:

1. Agrawal, V. (2025). Human Resource Management and Artificial Intelligence: Automating and Optimizing Processes. Taylor & Francis.
2. Alnsour, A., Kanaan, O., Salah, M., Alfayyad, L., Hijazi, Y., & Alsharif, D. (2024). The impact of implementing AI in recruitment on human resource management efficiency and organizational development effectiveness. *J. Infrastruct. Policy Dev*, 8, 6186.
3. Basnet, S. Navigating the AI/ML-Driven Future of HRM: Balancing Technological Innovation with Human Collaboration.
4. Brougham, D., & Haar, J. (2018). Smart technology, artificial intelligence, robotics, and algorithms (STARA): Employees' perceptions of our future workplace. *Journal of Management & Organization*, 24(2), 239-257.
5. Bijoria, S. (2024). A New Revolution in Green Human Resource Management (GHRM) using Artificial intelligence. *International Journal of Innovative Research in Technology and Science*, 93-100.
6. Bui Quoc Khoa 1*, N. V. (2024). Influential factors of Artificial Intelligence (AI) in the digital transformation of the human resources recruitment process sector in Vietnam. *International Journal of Multidisciplinary Research and Growth Evaluation* , 1181-1193.
7. Cable, D. M., & Turban, D. B. (2003). The value of organizational reputation in the recruitment context: A brand-equity perspective. *Journal of Applied Social Psychology*, 33(11), 2244-2266.
8. Colbert, A., Yee, N., & George, G. (2016). The digital workforce and the workplace of the future. In (Vol. 59, pp. 731-739): Academy of Management Briarcliff Manor, NY.
9. Dastin, J. (2022). Amazon scraps secret AI recruiting tool that showed bias against women. In *Ethics of data and analytics* (pp. 296-299). Auerbach Publications.
10. Duan, Y., Edwards, J. S., & Dwivedi, Y. K. (2019). Artificial intelligence for decision making in the era of Big Data—evolution, challenges and research agenda. *International journal of information management*, 48, 63-71.
11. El-Ghoul, M., Almassri, M. M., El-Habibi, M. F., Al-Qadi, M. H., Abou Eloun, A., Abu-Nasser, B. S., & Abu-Naser, S. S. (2024). AI in HRM: Revolutionizing Recruitment, Performance Management, and Employee Engagement.
12. Fernandez, V., & Gallardo-Gallardo, E. (2021). Tackling the HR digitalization challenge: key factors and barriers to HR analytics adoption. *Competitiveness Review: An International Business Journal*, 31(1), 162-187.

13. Fountaine, T., McCarthy, B., & Saleh, T. (2019). Building the AI-powered organization. *Harvard business review*, 97(4), 62-73.
14. Gonzalez, M. F., Liu, W., Shirase, L., Tomczak, D. L., Lobbe, C. E., Justenhoven, R., & Martin, N. R. (2022). Allying with AI? Reactions toward human-based, AI/ML-based, and augmented hiring processes. *Computers in Human Behavior*, 130, 107179.
15. Kavanagh, M. J., & Johnson, R. D. (2017). *Human resource information systems: Basics, applications, and future directions*. Sage Publications.
16. Levine, D. M., Stephan, D. F., & Szabat, K. A. (2016). *Statistics for managers using Microsoft Excel*. a. Pearson.
17. Lo-Zuster B. Cacatian, J. E. (2025). Automated Innovation: Exploring The Integration of Artificial Intelligence in human resource recruitment in Metro Matalia. CACATIAN-ESGUERRAESTACAN-SINOSA-TATCO, 1-48.
18. MESHRAM, D. R. (2025). THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN RECRUITMENT AND a. SELECTION OF EMPLOYEES IN THE ORGANISATION. *RUSSIAN LAW JOURNAL*, 322-333.
19. McTaggart, V., & Loonam, J. (2023). Exploring top management support for digital transformation: A case study of a European Financial Services organization. *IEEE Transactions on Engineering Management*, 71, 13787-13801.
20. Nikolaou, I. (2021). What is the Role of Technology in Recruitment and Selection? *The Spanish journal of psychology*, 24, e2.
21. Pan, Y., Froese, F., Liu, N., Hu, Y., & Ye, M. (2023). The adoption of artificial intelligence in employee recruitment: The influence of contextual factors. In *Artificial intelligence and international HRM* (pp. 60-82). Routledge.
22. Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020). Mitigating bias in algorithmic hiring: Evaluating claims and practices. *Proceedings of the 2020 conference on fairness, accountability, and transparency*.
23. Sakka, F., El Maknouzi, M. E. H., & Sadok, H. (2022). Human resource management in the era of artificial intelligence: future HR work practices, anticipated skill set, financial and legal implications. *Academy of Strategic Management Journal*, 21, 1-14.
24. Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
25. Shahriar, M. S. (2023). An analysis of global human capital trends: recommendations for HR strategies in Bangladeshi organizations. *Daffodil Int Univ J Bus Entrep (DIUJBE)*, 16, 18-37.
26. Shuck, B., Adelson, J. L., & Reio Jr, T. G. (2017). The employee engagement scale: Initial evidence for construct validity and implications for theory and practice. *Human Resource Management*, 56(6), 953-977.
27. Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. *California Management Review*, 61(4), 15-a.42.
28. Tarhini, A., Elyas, T., Akour, M. A., & Al-Salti, Z. (2016). Technology, demographic characteristics and e-learning acceptance: A conceptual model based on extended technology acceptance model. *Higher Education Studies*, 6(3), 72-89.
29. Ulrich, D., Younger, J., Brockbank, W., & Ulrich, M. (2012). *HR from the outside in: Six competencies for the future of human resources*. McGraw Hill Professional.
30. Upadhyay, A. K., & Khandelwal, K. (2018). Applying artificial intelligence: implications for recruitment. *Strategic HR Review*, 17(5), 255-258.