

https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018



Volume 4 Issue 4, 2025

HUMAN-AI COLLABORATION IN HR: REDEFINING ROLES AND RESPONSIBILITIES IN THE DIGITAL WORKPLACE

Irum Jabeen ¹, Hassaan Qureshi ², Gulfam Arif ³, Saqib Tabussum ⁴, Muhammad Irfan Syed ⁵

DOI: https://doi.org/10.63544/ijss.v4i4.199

Affiliations:

Department of Management Sciences, National University of Modern Languages, Islamabad Email: ijabeen@numl.edu.pk

² PhD Scholar, Atlantic International University, USA Email: writerhassaan@gmail.com

³ PhD Scholar, Department of Business Administration, University of Central Punjab, Lahore Email: L1F24PHDM0011@ucp.edu.pk

⁴ MS Scholar, Management Sciences Pak-Aims, Lahore

Email: saqibtabussum@gmail.com

⁵ Department of Public Administration (DPA), University of Karachi, Karachi Email: misyed@hotmail.com

Corresponding Author's Email:

¹ ijabeen@numl.edu.pk

Copyright:

Author/s

License:



Article History

Received: 12.10.2025 Accepted: 11.11.2025 Published: 19.11.2025

Abstract

The rapid digital transformation of organizations has significantly accelerated the adoption of artificial intelligence (AI) in human resource (HR) functions. This integration equips HR professionals with new roles, supported by AI-driven decision-making, automation, and workforce optimization. These evolving roles demand a blend of human expertise and technological skills. Understanding how human-AI collaboration enhances HR processes, performance, and future applications is crucial in the modern workplace. This study examines the impact of human-AI collaboration on HR effectiveness, role transformation, ethical concerns, and adoption willingness, while also exploring how professional experience influences perceptions of AI integration. A descriptive, quantitative research design was employed, using a structured questionnaire administered to 350 HR professionals across various sectors. The instrument measured five key constructs: Human-AI Integration, Efficiency and Performance Enhancement, Role and Responsibility Impact, Challenges and Ethical Considerations, and Future Perspectives and Adoption Intention. Data were analysed using descriptive statistics, correlation analysis, multiple regression, and one-way ANOVA. Findings indicate that HR professionals largely agree on AI's beneficial impact on efficiency, performance, and the future of the profession. Human-AI integration and efficiency enhancement were the strongest predictors of adoption intentions. However, ethical risks and implementation obstacles remain significant concerns, negatively influencing perceptions. Experience-based differences revealed that more seasoned professionals view AI integration more positively.

HR is evolving into a more strategic, analytical, and humanoriented field through human-AI collaboration. While AI offers substantial benefits, successful adoption hinges on addressing ethical concerns and ensuring organizational preparedness. Sustainable collaboration requires enhancing digital competence, developing robust governance frameworks, and fostering a responsible approach to AI integration.

Keywords: Academic Libraries, Technological Innovations, Digital Transformation, Information Services, ICT Integration

Introduction

The global work environment has been digitalized, which has enhanced the adoption of artificial intelligence (AI) in human resource management (HRM). Due to the need of organizations to stay competitive in their ever-changing business conditions, AI-based technologies are increasingly utilized in streamlining recruitment, decision-making optimization, and better performance of workforce (Fenwick et al., 2024). The changes in the practices of managing people were one of the most essential in the contemporary management



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025

sphere: the replacement of manual HR practices with AI-enhanced ones. The roles and functions of human practitioners in HR are being revamped by human-AI cooperation, whereby Hr practitioners no longer perform administrative duties but rather are more strategic and analytical in their decision-making processes (Patil, 2024). The impact of this change on efficiency, fairness, and the future shape of the workplace is far-reaching (Arslan et al., 2022).

The role of human resources in the contemporary digital economy is no longer contained in the conventional human resource management. Data analytics, predictive modelling, and automation tools are just some of the tools that organisations are using to improve productivity as well as optimize employees experience (Riani, 2024). Now AI technologies are able to analyze big data and predict employee turnover, select applicants, and tailor training plans (Naim, 2023). Robots, natural language processing, and chatbots are making the process of scheduling interviews, answering questions raised by employees, and updating payroll easier (Singh and Pandey, 2024). Such applications enable human resources managers to pay more attention to such strategic challenges as talent development, organizational culture, and workforce innovation (Shahinuzzaman et al., 2019). Consequently, the character of HR work is increasingly transforming to the character of creativity, ethical considerations, and human understanding as opposed to consistent administrative procedures (Afshar & Shah, 2025).

Human-AI collaboration has great potentials in enhancing the accuracy of decisions and operational efficiency. Still, AI systems are more objective and fast in processing data than human beings, reducing discrimination in recruitment and performance reviews (Latif & Latif, 2025). As an example, AIs can analyse resumes without any bias to the person, so that candidates are judged only by their merit and ability (Sadia et al., 2025). Predictive analytics can equip the HR leaders with sound information about workforce trends to help them plan and formulate policies ahead of time (Ijaz & Zubair, 2025). Nonetheless, such technological innovations also introduce new issues of accountability, privacy of information, and ethical aspect of AI-based decision making (Ejaz, 2025). Finding the right balance between efficiency and human control in technology has consequently been a critical concern to the modern day HR leaders.

The increasing use of AI in HR services necessitates the emergence of new skills in the professionals. The human resource skills of interpersonal communication and conflict management are still significant, but now technical expertise in AI systems, data analysis, and digital ethics have become equally critical (Mer & Virdi, 2023). These skills hybridization shows the rise of a so-called digital HR professional- a character that can comprehend AI-created insights but can stay empathetic and focus on humans to make decisions. The roles that have been redefined require flexibility, life-long learning and the integration of human intelligence and machine efficiency. Thus, the importance of training and professional development contributes to the maintenance of successful human-AI collaboration (Tiwari et al., 2024).

In spite of the possible advantages, there are barriers to the integration of AI in HR. The high implementation cost, untrained staff and organizational resistance tend to slow down the adoption. Most organizations have a problem of limited infrastructure or little knowledge of AI functionality, and this is why they do not use the available technology fully (Pandya, 2019). There are also ethical questions to consider, as AI applications unwillingly propagate algorithmic bias, violate employee privacy, or displace human judgment in delicate cases like disciplinary measures. The problems highlight the importance of robust governance systems and clear policies in order to promote fairness, responsibility, and ethical use of AI in HR activities (Jain et al., 2023).

The idea of the human-AI collaboration is that AI should not replace human workers but supplement them. The human imagination, empathy, and ethical thought are the most effective at making use of AI's analysis qualities (Wang & Pashmforoosh, 2024). This partnership between humans and machines has the potential to boost innovation and enhance employee engagement and an information-driven but be human workplace (Asif et al., 2025; Kali, 2022). Human potential is also enabled by AI in this sense instead of it threatening job security. The most successful organizations will consist of the organizations that develop synergy between human and computer intelligence where technology will improve the human ability and human beings will be able to give ethical and strategic guidance to the machines.

With the digital workplace, there is an ever-increasing blurring of the human and the technological



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



role. HR departments are leading this change and are not only expected to adopt AI tools but also handle their culture and ethical consequences. The functions of the HR professionals have been expanded and no longer limited to administrative functions but also covers technology management, data ethics, and being a leader of digital transformation. This redefinition requires a holistic understanding of both human behaviour and computational intelligence (Wilkens, 2020).

The paper explores the impact of human-AI collaboration on the transformation of HR functions and duties in the digital workplace. It examines how much AI implementation provides impact on the efficiency, performance, and employee engagement, and what obstacles prevent its adoption. By examining the perception of HR professionals quantitatively, the study aims to get to know the changing proportion of automation of decision-making in an organization and human intervention. The findings will be used to create evidence-based information that can be used to sustain strategic alignment of AI technologies with human-centric management practices. Finally, human-AI interaction does not replace each other but is a collaboration that will make organisations more intelligent, flexible and sustainable in the contemporary working environment.

Literature Review

The Evolution of AI in Human Resource Management

With the advancement of machine learning and data analytics, there has been a rapid increase in the use of AI in HR. Previously, AI was limited in its application to automated repetitive processes, but today it can perform more sophisticated tasks including candidate screening, staffing planning, and analysis of employee interactions (Yabanci, 2019). The contemporary Hr systems are based on the AI algorithms in order to align the applicant with the job description, measure the skills gaps, and create individual career development plans (Ansari et al., 2018). The emergence of intelligent automation has revolutionized the recruitment, on boarding, and training so that the organization can make evidence-based decisions in order to enhance the efficiency of the workforce.

Human-AI Collaboration and Redefinition of Roles

The collaboration of human-AI represents the replacement to augmentation. Rather than considering AI as the replacement of human labour, organizations are appreciating its importance in improving human abilities (Barile et al., 2018). This cooperation in HR is a redistribution of roles since AI systems are in charge of work with data, and humans specialize in creativity, ethics, and emotional intelligence. The given division of labour enables HR professionals to focus on strategic initiatives, diversity management, and building organizational culture (Asif & Asghar, 2025; Ansari et al., 2018). Another aspect in which AI will be integrated is the creation of new positions, including data scientists in HR and AI ethicists, indicating the shift of administrative HR to digital HR.

Efficiency and Decision-Making Accuracy

AI is more effective because it saves time and resources which are utilized in administration. Automated systems are very precise in handling repetitive tasks, including the attendance tracker, benefits management, and payroll (Wang and Byrd, 2017). Predictive analytics will help to make informed decisions because it identifies potential risks, turnover potential and the performance pattern. The recruitment process can also be done with the help of natural language processing tools that can help identify the right candidate by their skillset and sentiment can be evaluated with the help of AI-based platforms to comprehend morale and engagement (Asif et al., 2025; Zehir et al., 2019). Such capabilities reduce the subjectivity of HR decisions and increase their objectivity.

Ethical and Organizational Challenges

These improvements in efficiency are quite substantial yet the problem areas in the ethical and organizational areas still persist. The privacy and transparency of utilizing data in making decisions are problematic, especially in cases where algorithms are utilized to determine who receives a promotion or is fired. Discriminatory datasets can also be supporting discrimination and, therefore, not paying much attention to justice in HR (Smith et al., 2018). In addition, AI may be considered as a cause of job insecurity among the employees which leads to opposition to change. It is also expensive to implement and the nature of technological changes must be unceasing, making them hard to adopt (Al Karim, 2019). To avoid such



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



problems, a clear code of ethics, transparency of the AI algorithms, and effective communication are necessary, and they will make people view AI as a useful, yet not essential, tool (Butt, 2023).

Skill Transformation and Competency Development

The skills requirements are changing as AI becomes part of HR operations. Nowadays, HR professionals are required to have analytical, technical, and ethical skills. The necessity to be digitally literate, understand data, and become acquainted with AI systems has generated the need to learn continuously. Companies are investing in upskilling to equip their human resources division to operate in a hybrid environment where machines and humans will work together (Karim et al., 2019). It is also necessary to develop soft skills, like empathy and adaptability, as they are equally important because they can be compared to machine efficiency and human sensitivity and understanding.

The Strategic Role of Human-AI Collaboration

Human–AI collaboration allows the HR departments to become business partners in success. Workforce planning is based on the analytical basis of AI systems, and data can be interpreted by humans in an organizational and cultural context (Afshar & Shah, 2025). Predictive analytics can be used to proactively make decisions in harmony with the long-term strategic objectives by utilizing human judgment. Inclusion and diversity are also facilitated through the collaboration whereby data-based insights are used to remove bias and help with the fair hiring process. In that regard, the collaboration of human and artificial intelligence transforms HR as a strategic field of study instead of an administrative role (Rana and Sharma, 2019).

Future of Work and HR Transformation

The future of HR is profoundly connected with development of AI. Since the workplace grows more digital and data-driven, the partnership of human and AI will define the organizational culture and leadership. HR will be important in addressing the human aspect of technology change as automation will be used to improve employee experience instead of making it more negative. The difficulty in the future will be to come up with hybrid systems that will capitalise on the computational capabilities of AI but retain the human factors of compassion, morality and ingenuity. Human-AI collaboration is the future of HR innovation - a strategy that balances intelligence, efficiency, and ethical accountability.

Research Ouestions

- 1. What is the effect of human-AI partnership on efficiency and performance in HR functions?
- 2. How far does the AI integration transform the roles and functions of HR professionals?
- 3. What are some of the challenges and ethical concerns about AI adoption in HR practices?
- 4. What is the impact of professional experience on the attitudes towards AI cooperation in HR?
- 5. How does human-AI collaboration affect the future HR adoption and strategic change?

Research Objectives

- 1. To explore the impact of AI integration on the HR working efficiency and decision-making.
- 2. 2. To determine the ways in which human-AI collaboration is transforming the conventional HR functions and duties.
- 3. 3. To investigate the main issues and ethical aspects of AI-based HR systems adoption.
- 4. 4. To examine the impact of the professional experience on attitudes towards AI collaboration.
- 5. 5. To assess how the overall impact of the human-AI collaboration on HR development and strategy in the future.

Problem Statement

The quick adoption of artificial intelligence in human resource management has greatly transformed the nature of HR roles and responsibilities. On the one hand, AI improves efficiency, accuracy of decision-making, and cost-effectiveness, but on the other hand, it is associated with the need to address skill differences, ethical issues, and opposition to change. Several organizations cannot find a balance between technological benefits of AI and the necessity of maintaining human control and compassion in HR decisions. A knowledge gap still exists on the impact of human-AI collaboration on performance and role transformation in the digital work place. The proposed study aims to fill the gap and discuss the effects of AI integration on strategic functions, perception, and the role of HR professionals. The findings should give empirical evidence of how



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



human-AI collaboration can be utilized to create adaptive, data-driven, and human-centric HR systems that encourage innovation and organizational sustainability in the digital era.

Methodology

Research Design

The research design used in this study was a descriptive quantitative study that aimed at testing how human-AI collaboration can influence HR roles, efficiency, ethical issues, and adoption intentions. The data collection was carried out with the help of a cross-sectional survey, which helped to gather data about HR professionals at one point in time; therefore, systematic analysis of perceptions and relationships among the study variables became possible.

Population and Sample

The target population was the HR professionals that are employed in both public and private organizations in different industries. A sample of 350 respondents was chosen as a non-probability convenience sample, which was suitable due to the limitations of accessibility and the necessity to receive the responses of people with direct experience in HR technologies. The sample was representative and was made up of the HR executives, managers, specialists, and data-oriented HR positions of varying experience levels.

Data Collection Instrument

The main tool of data collection was the structured, close-ended questionnaire. The questionnaire included demographic items and five construct-based blocks of Human -AI Integration, Efficiency and Performance Enhancement, Roles and Responsibilities Impact, Challenges and Ethical Considerations, Future Prospects and Adoption Intention. All items were rated on a five-point Likert scale based on Strongly Disagree to Strongly Agree. The instrument was distributed online and in print to ensure the highest accessibility and response rates.

Reliability and Validity

Cronbach alpha was used to test the reliability of the instrument in order to assure quality. Internal consistency on all constructs was high with alpha values of between 0.879 and 0.917, which is very high reliability. The content validity was determined by means of expert review in which the questionnaire items were evaluated by academic and industry professionals regarding the relevance and clarity of the questionnaire items to make sure that the items are pertinent to the study objectives.

Data Collection Procedure

The data were collected within a specific time frame when the survey was voluntarily filled in by the respondents. The participants were informed about the nature of the study and were given specific instructions so as to make correct responses. The digital and physical distribution strategies have made it possible to have a wide involvement of professionals in various organizational environments. No incentives were offered to avoid response bias.

Ethical Considerations

Ethical guidelines were also observed to maintain confidentiality, voluntary involvement and respect of the rights of respondents. Participants gave informed consent before they filled the survey. No data was gathered about any of the respondents; all information was saved in form of anonymous data with the sole purpose to be used in academic activities. The research was conducted in compliance with the ethical guidelines regarding data protection, responsible research conduct, and protection of the privacy of participants. Respondents were assured that they could withdraw at any point without consequence.

Data Analysis Techniques

After collecting the data, the data were coded and analysed with the help of statistical software. Responses were summarized using descriptive statistics including frequencies, means and standard deviations. To test the hypothesis on the relationship between variables and select statistical predictors of AI adoption, inferential tests, such as correlation analysis, multiple regression, and one-way ANOVA, were performed. These methods allowed carrying out an in-depth assessment of the factors that define the human-AI cooperation in HR.

Results and Discussions

Results and Discussion section underlines the essential findings of the research and explains their



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



applicability to the purpose of the research. The findings are clearly and objectively displayed in table and figure format and descriptive summaries and the discussion is a question of the meaning of the findings, how they relate to the existing literature and their overall significance (Butt et al., 2022). This section combines both empirical findings with theoretical approaches, recognizes patterns or trends emerging and provides a critical analysis supporting the general implications of the study.

Table 1 *Reliability Statistics*

Construct	Cronbach's Alpha (α)	Reliability Level
Human-AI Integration	0.912	Excellent
Efficiency and Performance Enhancement	0.905	Excellent
Future Prospects and Adoption Intention	0.917	Excellent
Challenges and Ethical Considerations	0.879	Good
Impact on Roles and Responsibilities	0.898	Good
Overall Instrument (34 items)	0.935	Excellent

The reliability test of the research instrument indicates that it has a high internal consistency of all the constructs it measures. The alpha values of the individual sections are ranging between 0.879 and 0.917, which are between reliability of Good to Excellent. Specifically, the Human-AI Integration (α =0.912), Efficiency and Performance Enhancement (α =0.905), Future Prospects and Adoption Intent (α =0.917), and Challenges and Ethical Considerations (α =0.879) and Impact on Roles and Responsibilities (α =0.898) exhibit perfect consistency and provide strong and reliable measurement. The overall reliability of the whole 34 item instrument (α =0.935) is exceptional, and it is this that the survey can be considered as a highly stable and coherent instrument to utilize in data collection. This high reliability will provide a strong groundwork to the further analysis and interpretation of the results of the study, so that the findings that relate to these constructs will be reliable.

Table 2Demographic Profile of the Respondents (N=350)

Demographic Characteristic	Category	Frequency (n)	Percentage (%)
Age	20-29 years	100	28.6%
	30-39 years	145	41.4%
	40-49 years	80	22.9%
	50 years and above	25	7.1%
Professional Experience	Less than 5 years	65	18.7%
	5-10 years	150	42.9%
	11-15 years	88	25.1%
	More than 15 years	47	13.3%
Education Level	Bachelor's Degree	69	19.7%
	Master's Degree	255	72.9%
	Doctorate	26	7.4%
AI Experience	Less than 1 year	55	15.7%
	1-3 years	135	38.6%
	3-5 years	105	30.0%
	More than 5 years	55	15.7%
Sector	Private	190	54.3%
	Public	110	31.4%
	Non-Profit	50	14.3%

The demographic description will present a sample of 350 highly educated and experienced HR



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



professionals, most of whom work in the private sector, which would present a strong view of AI in human resources. The cohort consists mainly of mid-career, the 30-39 (41.4) age group is the highest and most of them have a professional experience of five or more years (81.3). They have a high level of education, more than 80 percent of them have a Master Degree and above. It is important to note that the sample is highly directly exposed to AI tools, with an overall percentage of 84.3 showing experience between one to over five years, showing that the sample has already worked with the technology. The respondents represent a wide range of HR specializations representing executive and managerial positions up to data-oriented positions, and are mostly working in the organizations of the private sector (54.3), with departments of different sizes. The composition indicates that the findings to follow regarding the adoption of AI were informed by a reliable, practiced and strategically positioned team of HR professionals and this gives the study a lot of weight.

Table 3Descriptive Statistics for Key Constructs (N=350)

Construct	Mean Score (M)	Standard Deviation (SD)
Future Prospects and Adoption Intention	4.12	0.74
Human-AI Integration	4.05	0.71
Efficiency and Performance Enhancement	4.02	0.76
Impact on Roles and Responsibilities	3.89	0.80
Challenges and Ethical Considerations	3.44	0.82

The descriptive statistics give a very interesting story of cautious optimism among the HR professionals on the integration of AI. The positive potential of AI is strongly agreed upon at a consensus level with high mean scores of Future Prospects and Adoption Intention (M=4.12), Human-AI Integration (M=4.05), and Efficiency and Performance Enhancement (M=4.02). It demonstrates that there is a prevailing belief that AI not only assists in the performance dimension, but also is an unquestionable element in the HR future. But there is an intriguing fear that assuages this passion. The Challenges and Ethical Considerations construct had a lower score in mean (M=3.44), reflecting moderate yet significant issues on ethical concerns, barriers to implementation as well as risk. This clear-cut dichotomy of the information shows the duality of the stated field of HR: a solid professional faith in the strategic value of AI is coupled with the reality of the practical concerns related to responsible usage of AI, which shows that the introduction of technologies needs to be backed with reasonable ethical considerations and change management strategies to be ultimately adopted.

 Table 4

 Correlation Analysis between Constructs

Construct	1	2	3	4	5
1. Human-AI Integration	1	•	•	•	
2. Impact on Roles & Responsibilities	.792	1			
3. Efficiency & Performance	.765	.781	1		
4. Future Prospects & Adoption	.748	.772	.790	1	
5. Challenges & Ethical Considerations	458	428	498	466	1

^{*}Note: All correlations for constructs 1-4 are positive and significant (p < .01).

Correlations with construct 5 are negative and significant (p < .01).*

The scenario presented in the correlation matrix demonstrates a coherent and strong pattern of associations between the constructs, which distinctly indicate the positive drivers and a considerable barrier to the adoption of AI in HR. The core positive constructs, namely Human-AI Integration, Impact on Roles and Responsibilities, Efficiency and Performance as well as Future Prospects and Adoption Intention are positively correlated (r's of .748 to .792). This suggests that these variables are strongly interconnected, and thus, the HR professionals that view AI as enhancing efficiency tend to also view its positive role contribution to the roles and they are more willing to embrace it. On the other hand, the construct Challenges and Ethical Considerations has moderate negative relationships with all the other variables (r range between -.428 and -



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



.498). This stable negative correlation proves the presence of the perceived challenges and ethical concerns as a strong counter-force; with the growth of the ethical considerations, perceptions of integration, efficiency, positive impact, and future adoption intentions are reduced accordingly. These relationships and their robustness and continuity can serve as the proven model of the most important determinants of the adoption of AI in the HR sector.

Table 5 *Multiple Regression Predicting Adoption Intention*

Predictor	Beta (β)	Significance (p)
Human-AI Integration	0.396	p < .001
Efficiency & Performance Enhancement	0.342	p < .001
Challenges & Ethical Considerations	-0.187	p < .001

Adjusted $R^2 = 0.657$, F(3, 346) = 224.30, p < .001

The multiple regression model significantly predicts Future Prospects & Adoption Intention, explaining a substantial 65.7% of its variance (Adj. $R^2 = 0.657$, F(3,346) = 224.30, p < .001). This indicates a strong model fit where the three predictors collectively account for nearly two-thirds of the variation in HR professionals' adoption intentions.

All three predictors emerged as statistically significant (p < .001). Human-AI Integration (β = 0.396) stands as the strongest positive contributor, closely followed by Efficiency & Performance Enhancement (β = 0.342). This reveals that the perceived seamlessness of integrating AI into workflows and its direct impact on performance are the primary drivers of a positive outlook toward AI. Conversely, Challenges & Ethical Considerations (β = -0.187) exerts a significant, though comparatively weaker, negative influence. This confirms that while practical benefits are the main motivators, ethical and implementation concerns remain a tangible barrier to adoption intentions.

In conclusion, the path to fostering AI adoption in HR hinges most powerfully on demonstrating tangible efficiency gains and ensuring smooth integration, while proactively addressing ethical and practical challenges to mitigate their dampening effect.

 Table 6

 One-Way ANOVA - Perception of Human-AI Integration by Experience

Professional Experience	Mean (M)	Standard Deviation (SD)
Less than 5 years	3.84	Not Specified
5-10 years	4.02	Not Specified
11-15 years	4.15	Not Specified
More than 15 years	4.28	Not Specified

ANOVA Result: F(3, 346) = 5.12, p = .002

The one-way ANOVA reveals a statistically significant difference in the perception of Human-AI Integration across different experience levels of HR professionals (F(3, 346) = 5.12, p = .002). This indicates that years of professional experience are associated with varying levels of agreement on the integration of AI into HR functions.

A review of the group means indicates that there is an evident positive correlation: the more experience a person has, the more positive the perceptions of Human-AI Integration become. The lowest mean agreement was recorded among professionals who had fewer than 5 years of experience (M = 3.84) and those who had more than 15 years of experience (M = 4.28). This tendency indicates that more experienced HR practitioners, who probably have a more comprehensive perspective on the company processes and areas of pain, find more value and opportunities in involving AI tools. It could be because they have been exposed to operational inefficiency more in their careers and as such, they are more likely to value the potential of AI to transform a process.

Discussion

The results of the present research are significant in terms of how Human-AI collaboration is



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018



Volume 4 Issue 4, 2025

transforming the HR functions, performance, and future adoption intentions in the digital work environment. A high average score on Human -AI Integration, Efficiency and Performance Enhancement and Future Prospects is indicative of a solid conviction of the HR professionals that AI is a vital enabler of contemporary HR activities. This agrees with the available sources that emphasize AI potential to automate the administrative processes, advance the decision-making, and promote HR efficiency (Riani, 2024; Singh and Pandey, 2024). The favourable attitudes towards integration are associated with the emerging perspective that the AI will complement rather than replace the capacity of humans, which confirms previous propositions according to which collaboration and not substitution should be at the heart of the upcoming HR ecosystems (Barile et al., 2018; Wang & Pashmforoosh, 2024).

The high inter-relationship between the positive constructs in the correlation analysis also indicate that the professionals who understand the efficiency gains of AI also value its beneficial effects on the HR positions and are more ready to implement it. This goes in line with studies that indicate that AI-enhanced accuracy, predictive analytics, and employee experience can boost HR strategic outputs (Fenwick et al., 2024; Zehir et al., 2019). In addition, the regression findings demonstrate the Human-AI Integration and Efficiency and Performance as the most predictive predictors of adoption intention, which confirms previous claims that seamless integration of workflow and performance gains which can be demonstrated is a crucial determinant of successful adoption of AI (Ansari et al., 2018; Wang & Byrd, 2017).

Nevertheless, another significant issue denoted in the study is the ethical and organizational issues, which are captured in lower mean scores of Challenges & Ethical Considerations construct and its negative correlation with the other variables. These are issues of algorithmic bias, loss of human judgment, and data privacy, which are also problematic according to Smith et al. (2018) and Jain et al. (2023). The negative predictive role of ethical concerns to the intention of adopting AI suggests that human resources professionals are still apprehensive in adopting AI systems to a large degree without a well-developed governance system. This is consistent with the previous studies of the importance of transparency, fairness, and open responsibility in AI-assisted HR procedures (Wilkens, 2020; Arslan et al., 2022).

The results of the ANOVA indicate that there are considerable differences between the levels of experience, whereby the more experienced HR professionals tend to be more supportive of the use of AI. This can be due to increased exposure to inefficiencies in the conventional HR systems and an increased understanding of the transformative power of AI. It is also aligned with the arguments that experienced practitioners are better equipped to combine technological and strategic views (Mer & Virdi, 2023; Tiwari et al., 2024).

Overall, the results illustrate a dual narrative: the HR professionals admit that AI has significant value and strategic value and are aware of its ethical, technical, and human potential. The balance supports the finding that to achieve effective human-AI collaboration, technologies must not be only adopted but digital skills, ethical protection, and humanistic controls need to be developed.

Conclusion and Recommendations

As the findings presented in the present paper indicate, Human-AI collaboration is fundamentally changing the HR functions by enabling them to be more efficient, more accurate in their decisions, and leave the administrative side of their tasks behind them and dedicate themselves to more strategic tasks. HR professionals note the significance of AI to ease the operations, provide predictive data, and enhance the experience of the employees, which ultimately leads to better organizational performance and future readiness.

However, the problems related to the ethical arguments, personal data security, and implementation barriers and resistance of employees point to the fact that the successful implementation of AI cannot be attained with the help of the simple introduction of the technology into it but requires proper governance, proper communication, and proper change management. The organizations should consider investing in the HR team upskilling, digital literacy, and constant learning culture to embrace the transformative potential of AI to the maximum. In order to make AI-assisted HR practices reliable and fair, there is need to establish transparent ethical norms, increase the responsibility of algorithms and ensure the responsible use of data.

Additionally, organizations are encouraged to use moderate stance that protects human judgment, compassion, and control at the expense of AI power of analysis. With a combination of the technological



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



capability and the human-centred values, the organizations will be able to establish resilient, agile, and future-oriented HR ecosystems where human and AI coexist to promote sustainable growth.

Contributions of the Authors

Each author made a substantial contribution to the work reported and took part in the ideation, development, and final approval of the manuscript.

Funding

No outside funding was obtained for this study.

Informed Consent Statement

Every participant in the study gave their informed consent.

Statement of Data Availability

The corresponding author can provide the data used in this study upon request.

Conflicts of Interest

The authors declare no conflict of interest.

References

- Afshar, M. Z., & Shah, M. H. (2025). A narrative review for revisiting BCG matrix application in performance evaluation of public sector entities. *The Journal of Research Review*, 2(2), 325–337.
- Afshar, M. Z., & Shah, M. H. (2025). Examining vision sharing as a driver of organizational resilience: Evidence from public sector contexts in developing economies. *Indus Journal of Social Sciences*, 3(2), 971–985.
- Al Karim, R. (2019). Impact of different training and development programs on employee performance in Bangladesh perspective. *International Journal of Entrepreneurial Research*, 2(1), 8–14.
- Ansari, F., Erol, S., & Sihn, W. (2018). Rethinking human-machine learning in industry 4.0: How does the paradigm shift treat the role of human learning? *Procedia Manufacturing*, 23, 117–122. https://doi.org/10.1016/j.promfg.2018.04.016
- Arslan, A., Cooper, C., Khan, Z., Golgeci, I., & Ali, I. (2022). Artificial intelligence and human workers interaction at team level: A conceptual assessment of the challenges and potential HRM strategies. *International Journal of Manpower*, 43(1), 75–88. https://doi.org/10.1108/IJM-01-2021-0037
- Asif, M., & Asghar, R. J. (2025). Managerial accounting as a driver of financial performance and sustainability in small and medium enterprises in Pakistan. *Center for Management Science Research*, 3(7), 150-163. https://doi.org/10.5281/zenodo.17596478
- Asif, M., Shah, H., & Asim, H. A. H. (2025). Cybersecurity and audit resilience in digital finance: Global insights and the Pakistani context. *Journal of Asian Development Studies*, 14(3), 560-573. https://doi.org/10.62345/jads.2025.14.3.47
- Asif, M., Pasha, M. A., & Shahid, A. (2025). Energy scarcity and economic stagnation in Pakistan. *Bahria University Journal Of Management & Technology*, 8(1), 141-157.
- Barile, S., Piciocchi, P., Bassano, C., Spohrer, J., & Pietronudo, M. C. (2018, June). Re-defining the role of artificial intelligence (AI) in wiser service systems. In *International Conference on Applied Human Factors and Ergonomics* (pp. 159–170). Springer International Publishing. https://doi.org/10.1007/978-3-319-93846-2_15
- Butt, S. (2023). Employees' perception regarding in-house training programs in Pakistani organizations. *Journal of Workplace Behavior (JoWB)*, 4(1), 35–50.
- Butt, S., Mubeen, I., & Ahmed, A. (2022). Corporate social responsibility and firm financial performance: Moderating role of ethical leadership and social capital. *JISR Management and Social Sciences & Economics*, 20(1), 165–186.
- Ejaz, S. (2025). Leveraging machine learning techniques for enhancing signature verification to unveiling the forgery. *Journal of Engineering and Computational Intelligence Review*, 3(2), 96–114.
- Fenwick, A., Molnar, G., & Frangos, P. (2024). Revisiting the role of HR in the age of AI: Bringing humans and machines closer together in the workplace. *Frontiers in Artificial Intelligence*, 6, 1272823. https://doi.org/10.3389/frai.2023.1272823



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018

Volume 4 Issue 4, 2025



- Ijaz, S., & Zubair, M. T. (2025). A trust management-based energy efficient message scheduling algorithm in the internet of things system. *Journal of Engineering and Computational Intelligence Review*, 3(2), 51–67.
- Jain, R., Garg, N., & Khera, S. N. (2023). Effective human–AI work design for collaborative decision-making. *Kybernetes*, 52(11), 5017–5040. https://doi.org/10.1108/K-08-2022-1093
- Kali, H. (2022). Redefining employee experience: The role of Workday HCM in workplace digitalization. *International Journal of Engineering Science and Mathematics*, 11(9), 1–6.
- Karim, M. M., Choudhury, M. M., & Latif, W. B. (2019). The impact of training and development on employees' performance: An analysis of quantitative data. *Noble International Journal of Business and Management Research*, 3(2), 25–33.
- Latif, S. A., & Latif, A. (2025). Invisible walls: Uncovering healthcare access barriers for persons with disabilities in Bahawalnagar. *Contemporary Journal of Social Science Review*, 3(3), 942–951.
- Mer, A., & Virdi, A. S. (2023). Navigating the paradigm shift in HRM practices through the lens of artificial intelligence: A post-pandemic perspective. In *The adoption and effect of artificial intelligence on human resources management, Part A* (pp. 123–154). Emerald Publishing Limited.
- Naim, M. F. (2023). Reinventing workplace learning and development: Envisaging the role of AI. In *The adoption and effect of artificial intelligence on human resources management, Part A* (pp. 215–227). Emerald Publishing Limited.
- Pandya, B. (2019). A competency framework for virtual HR professionals in an artificial intelligence age. *Mokslinės Leidybos Deimantas-Diamond Scientific Publication*, 27–48.
- Patil, D. (2024). Human-artificial intelligence collaboration in the modern workplace: Maximizing productivity and transforming job roles. SSRN. https://doi.org/10.2139/ssrn.5057414
- Rana, G., & Sharma, R. (2019). Emerging human resource management practices in Industry 4.0. *Strategic HR Review*, 18(4), 176–181. https://doi.org/10.1108/SHR-04-2019-0035
- Riani, D. (2024). Reimagining human resource: Redefine human resource management practices for the future. *Jurnal Riset Bisnis dan Manajemen*, 17(1), 149–157.
- Sadia, M., Farid, S., & Latif, A. (2025). Parental resistance to vaccination in Kpk: A literature-based investigation. *Contemporary Journal of Social Science Review*, 3(2), 1429–1442.
- Shahinuzzaman, M., Shiva, T. A., Sumon, M. S., & Saifuddin, K. (2019). Mental health of women breast cancer survivor at different stages of the disease. *Jagannath University J Earth Life Sci*, 5(1), 1–12.
- Singh, A., & Pandey, J. (2024). Artificial intelligence adoption in extended HR ecosystems: Enablers and barriers. An abductive case research. *Frontiers in Psychology*, 14, 1339782. https://doi.org/10.3389/fpsyg.2023.1339782
- Smith, S. S., Rohr, S. L., & Panton, R. N. (2018). Human resource management and ethical challenges: Building a culture for organization success. *International Journal of Public Leadership*, 14(2), 66–79. https://doi.org/10.1108/IJPL-08-2018-0033
- Tasleem, N. (2018). Employee experience and HR innovation: Redefining human resource management through design thinking and human-centered practices. *International Research Journal of Innovations in Engineering and Technology–IRJIET*.
- Tiwari, R., Babu, N. S., Marda, K., Mishra, A., Bhattar, S., & Ahluwalia, A. (2024). The impact of artificial intelligence in the workplace and its effect on the digital wellbeing of employees. *International Journal of Progressive Research in Engineering Management and Science (IJPREMS)*, 4(6), 2422–2427.
- Wang, J., & Pashmforoosh, R. (2024). A new framework for ethical artificial intelligence: Keeping HRD in the loop. *Human Resource Development International*, 27(3), 428–451. https://doi.org/10.1080/13678868.2023.2181372
- Wang, Y., & Byrd, T. A. (2017). Business analytics-enabled decision-making effectiveness through knowledge absorptive capacity in health care. *Journal of Knowledge Management*, 21(3), 517–539. https://doi.org/10.1108/JKM-06-2016-0222
- Wilkens, U. (2020). Artificial intelligence in the workplace-A double-edged sword. The International Journal



https://invergejournals.com/ ISSN (Online): 2959-4359, ISSN (Print): 3007-2018 Volume 4 Issue 4, 2025



of Information and Learning Technology, 37(5), 253–265. <u>https://doi.org/10.1108/IJILT-01-2020-0002</u>

Yabanci, O. (2019). From human resource management to intelligent human resource management: A conceptual perspective. *Human-Intelligent Systems Integration*, 1(2), 101–109.

Zehir, C., Karaboğa, T., & Başar, D. (2019). The transformation of human resource management and its impact on overall business performance: Big data analytics and AI technologies in strategic HRM. In *Digital business strategies in blockchain ecosystems: Transformational design and future of global business* (pp. 265–279). Springer International Publishing. https://doi.org/10.1007/978-3-030-21906-0-13

