

## THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ORGANISATION PERFORMANCE OF EMPLOYEES

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### Abstract

Artificial Intelligence has begun to alter the corporate world's dynamics in the last few years. It is anticipated that artificial intelligence will have a significant impact on an organization's performance and raise the company's degree of global competency. AI is anticipated to assist the company in better understanding its target audience, potential target audience, staff, and customers. It is anticipated that AI will assist the company in better understanding its target audience, potential target audience, staff, and customers. Artificial intelligence (AI) has the potential to improve lives by making tasks more convenient and customized. Businesses will be able to operate at a higher level and customize their operations in ways that are currently only possible for humans. Businesses face a daily plethora of demands and difficulties regarding: what should be done, how should it be done, when should it be done, who should do it, how much it will cost, how long it will take, what resources are needed, market trends, the status of the economy at the moment, shifts in customer preferences, etc. All of these are anticipated to be examined by humans using historical data; nevertheless, due to time constraints, this may prove demanding and tough for the company as well as the staff. These are all scenarios in which artificial intelligence could be useful. AI might be inferred from every organizational department. The type of study design that was used is descriptive. The research results were presented using pie charts and bar graphs. Organization Employees were the main participants in this study.

**Keywords:** Artificial intelligence, organisation performance, organisation challenges

### Introduction

Technological advancements are bringing about a significant transformation of modern workplaces, particularly with the introduction of Artificial Intelligence (AI) into many organizational activities. Among them, one area where AI is starting to disrupt and challenge conventional knowledge is performance management. Aiming for speed, efficiency, and competitiveness in a business

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environment that is changing swiftly, firms can improve decision-making, nurture talent, and accelerate organizational success by implementing AI-powered tools in performance management. As previously mentioned, any tool or machine that performs human labor must be considered as part of the idea of artificial intelligence (AI). These devices are products of human invention, meant to automate daily routines so that people can do more in less time (Harrison,1986). Technology is advancing and innovating so quickly that it is forcing firms to digitize their business processes. That being said, over time, the demands and goals of today's workforce have transformed corporate culture and HR procedures, especially with the major alterations after the worldwide pandemic (Harsha Palwe,2021). The company's workforce is one of its most significant assets. Reaching organizational objectives and gaining a competitive edge depend heavily on the performance of individual employees. In the modern era of highly developed IT, One of the most ground-breaking developments in a number of industries, including human resource development, is artificial intelligence (AI) (Trocin et al., 2021). Technology like IBM's Watson<sup>1</sup> and Google DeepMind's AlphaGo<sup>2</sup>, which defeated their top competitors, best illustrate the visibility and quick pace of artificial intelligence (AI) in recent years. competitors who are human at Go and Jeopardy. Though AI takes many different forms, in general, the term refers to intelligent systems that possess the capacity for thought and learning (Russell et al.,1995). Artificial Intelligence (AI) has revolutionized the field of Human Resource Management (HRM) by allowing computers to perform cognitive functions that were previously performed by people (Graßmann & Schermuly, 2021). The use of AI signals the beginning of a new era in performance management, one marked by ongoing observation, data-driven insights, and customised feedback systems. According to Tong et al. (2020), artificial intelligence (AI) will play a major role in empowering managers to use big data to provide personalised feedback, which will transform performance reviews. However, organisational preparedness and managerial skill in successfully utilising AI-generated feedback are prerequisites for the realisation of this revolutionary potential. Helms Mills et al. (2010) have underlined that people's sense making process is critical in deciding whether they view AI-generated feedback as a danger or an opportunity, which in turn affects how widely it is adopted and how it affects organisations

,we delineate how AI is influencing the nature of work in the future by altering particular facets of work procedures and the experiences of human laborers. By doing this, we can better understand research that looks into new roles for humans and AI (Jarrahi, 2018) and how to best combine human and AI skills to promote worker and organizational effectiveness. We also discussed how the nature

of work and the competencies needed to succeed in the current organizational environment are influenced by and changed by human-AI collaboration.

## **LITERATURE REVIEW**

Agarwal and Dhar's (2014) recent research examines the potential that big data and analytics bring to performance management and emphasizes how these changes may affect organizational procedures. In their discussion of the potential and problems facing HRM in the future, Stone and Deadrick (2015) stress the necessity for businesses to keep up with technology changes.

Furthermore, the alignment of personal ambitions with organizational goals is facilitated by AI-powered solutions (Armstrong, 2016; Larson & Chu, 2018). Artificial intelligence (AI) systems are able to analyse and comprehend goal statements by using machine learning and natural language processing algorithms. This allows for consistency and alignment at all organizational levels.

The relevance of AI in providing real-time feedback mechanisms within organizations has been highlighted by a number of researchers (Vrontis et al., 2022; Tong et al., 2020). Organizations may expedite employee feedback, support continuous improvement projects, and streamline performance evaluation procedures by utilizing AI algorithms.

Tong et al. (2020) explore the advantages and disadvantages of artificial intelligence (AI) in performance management, talking about how it may increase employee engagement, expedite procedures, and promote a continuous improvement culture. The report emphasizes how crucial AI-driven insights are to reaching strategic goals and improving people management procedures.

In his thorough analysis of the research on AI in performance management, Biswas (2021) summarizes the most important conclusions and points out new developments. The study emphasizes the increasing use of AI-powered systems in businesses and the necessity for more investigation into these systems' efficacy in various settings.

Graßmann and Schermuly (2021) examine how AI is being used in businesses, highlighting how crucial it is to combine machine and human viewpoints for a successful rollout. The study explores how employee acceptability, leadership support, and organizational culture influence the uptake of AI-driven performance management systems.

Artificial Intelligence (AI) has been increasingly prevalent in performance management in recent years, changing conventional methods and creating new options for businesses. The influence of

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artificial intelligence (AI) on human resource management methods has been shown in research by Vrontis et al. (2022), which emphasizes how AI improves decision-making processes and boosts organizational performance

### **OBJECTIVES OF RESEARCH PAPER**

1. To analyze the impact of artificial intelligence on organisational performance metrics across various industries.
2. To identify and evaluate the key AI technologies and strategies that drive performances optimization in business

### **RESEARCH METHODOLOGY**

The study's technique includes gathering primary data from 150 respondents in the Punjabi area of Ludhiana using an online questionnaire. The study, "The impact of Artificial intelligence of organisation on performance of employees," evaluates how AI technologies affect organisational performance management procedures using quantitative techniques.

### **RESULT AND DISCUSSION**

<b>Gender</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	75	49.7	50.3	50.3
	Female	74	49.0	49.7	100.0
	Total	149	98.7	100.0	
Missing	System	2	1.3		
Total		151	100.0		

In the analysis, the gender distribution among respondents is nearly balanced, with 50.3% male and 49.7% female participants. This slight difference ensures a diverse range of perspectives on the impact of AI on organizational performance. The data reflects inclusivity, with only a small portion (1.3%) of responses missing, making the findings robust and representative of both genders.

<b>individual goal with organisation objectives</b>
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		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	3.3	3.3	3.3
	disagree	1	.7	.7	4.0
	neutral	17	11.3	11.3	15.2
	agree	88	58.3	58.3	73.5
	strongly agree	40	26.5	26.5	100.0
	Total	151	100.0	100.0	

The analysis shows that a significant majority of respondents (84.8%) agree or strongly agree that AI-powered performance management systems effectively align individual goals with organizational objectives. Specifically, 58.3% agree, and 26.5% strongly agree with this statement. A smaller portion remains neutral (11.3%), while a minimal number of respondents disagree (4%). This strong positive response indicates that AI is perceived as a valuable tool in harmonizing personal ambitions with company goals, promoting a cohesive and aligned workforce. The data underscores the effectiveness of AI in enhancing organizational goal alignment.

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender	149	1.00	2.00	1.4966	.50168
identify performance trends more effectively	151	2.00	5.00	4.1391	.73066
Education Qualification	151	1.00	5.00	3.8411	.81725
Valid N (listwise)	149				

The descriptive statistics provide a summary of key variables in the study. The gender variable, with a mean of 1.4966 and a standard deviation of 0.50168, shows a near-equal distribution between male and female respondents. The effectiveness of AI in identifying performance trends has a mean of 4.1391, indicating that most respondents agree on its usefulness, with a relatively low standard deviation of 0.73066, suggesting consistent responses. Education qualification has a mean of 3.8411 and a standard deviation of 0.81725, reflecting a diverse educational background among the respondents.

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<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender	151	1.00	2.00	1.5033	.50165
Education Qualification	151	1.00	5.00	3.8411	.81725
individual goal with organisation objectives	151	1.00	5.00	4.0397	.83969
effective identification of training and development needs	151	1.00	5.00	4.0861	.75666
Real time feedback	151	1.00	5.00	4.0397	.83969
identify performance trends more effectively	151	2.00	5.00	4.1391	.73066
Valid N (listwise)	151				

The descriptive statistics highlight key variables from the study. Gender is nearly evenly split with a mean of 1.5033. The respondents' educational qualifications have a mean of 3.8411, indicating a fairly diverse educational background. For aligning individual goals with organizational objectives, the mean is 4.0397, showing general agreement. The effectiveness in identifying training needs has a slightly higher mean of 4.0861. Real-time feedback and the ability to identify performance trends both have strong mean values of 4.0397 and 4.1391, respectively, indicating positive perceptions of AI's role in these areas.

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
facilitates accurate and timely performance evaluations	4.0795	.84477	151
contributed positively to overall employee performance	4.1457	.73392	151

The descriptive statistics reveal that the statement "facilitates accurate and timely performance evaluations" has a mean score of 4.0795, with a standard deviation of 0.84477, indicating a positive response but with some variability among respondents. The statement "contributed positively to overall employee performance" has a slightly higher mean score of 4.1457 and a lower standard deviation of 0.73392, suggesting a strong and more consistent agreement among respondents about

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the positive impact on employee performance. Both means indicate favorable perceptions of the effectiveness of the evaluated factors.

Correlations			
		facilitates accurate and timely performance evaluations	contributed positively to overall employee performance
facilitates accurate and timely performance evaluations	Pearson Correlation	1	.519**
	Sig. (2-tailed)		<.001
	N	151	151
contributed positively to overall employee performance	Pearson Correlation	.519**	1
	Sig. (2-tailed)	<.001	
	N	151	151
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation analysis shows a moderate positive relationship between "facilitates accurate and timely performance evaluations" and "contributed positively to overall employee performance," with a Pearson correlation coefficient of 0.519. This correlation is statistically significant at the 0.01 level ( $p < 0.001$ ), indicating that improvements in timely performance evaluations are associated with a positive impact on overall employee performance. The significant correlation suggests that effective performance evaluations are likely contributing to enhanced employee performance.

Descriptive Statistics			
	Mean	Std. Deviation	N
individual goal with organisation objectives	4.0397	.83969	151

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improved our ability to forecast performance outcomes	4.0927	.79457	151
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Descriptive statistics reveal that respondents rated the alignment of individual goals with organizational objectives with a mean of 4.04 (SD = 0.84). The ability to forecast performance outcomes was rated slightly higher, with a mean of 4.09 (SD = 0.79). Both scores indicate a generally positive perception of AI's impact on performance management.

<b>Correlations</b>			
		individual goal with organisation objectives	improved our ability to forecast performance outcomes
individual goal with organisation objectives	Pearson Correlation	1	.374**
	Sig. (2-tailed)		<.001
	N	151	151
improved our ability to forecast performance outcomes	Pearson Correlation	.374**	1
	Sig. (2-tailed)	<.001	
	N	151	151
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation analysis shows a significant positive relationship between aligning individual goals with organizational objectives and the improved ability to forecast performance outcomes ( $r = 0.374$ ,  $p < 0.001$ ). This indicates that as employees' individual goals align more closely with organizational objectives, there is a notable improvement in the organization's ability to predict performance outcomes. The positive correlation suggests that effective goal alignment contributes to better performance forecasting, highlighting the importance of synchronization between personal and organizational targets for enhanced performance management.

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N

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AI in performance management has been beneficial to our organization	4.1788	.76669	151
effective identification of training and development needs	4.0861	.75666	151
improved the fairness and objectivity of performance evaluation	4.0530	.85470	151

Descriptive statistics reveal that AI in performance management is highly beneficial to the organization ( $M = 4.18$ ,  $SD = 0.77$ ). It also effectively identifies training and development needs ( $M = 4.09$ ,  $SD = 0.76$ ) and improves the fairness and objectivity of performance evaluations ( $M = 4.05$ ,  $SD = 0.85$ ). These results indicate strong positive perceptions of AI's impact on performance management.

<b>Correlations</b>				
		AI in performance management has been beneficial to our organization	effective identification of training and development needs	improved the fairness and objectivity of performance evaluation
AI in performance management has been beneficial to our organization	Pearson Correlation	1	.594**	.596**
	Sig. (2-tailed)		<.001	<.001
	N	151	151	151
effective identification of training and development needs	Pearson Correlation	.594**	1	.632**
	Sig. (2-tailed)	<.001		<.001
	N	151	151	151
improved the fairness and objectivity of performance evaluation	Pearson Correlation	.596**	.632**	1
	Sig. (2-tailed)	<.001	<.001	
	N	151	151	151

** . Correlation is significant at the 0.01 level (2-tailed).
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Correlations show strong positive relationships among the variables. AI in performance management is significantly beneficial to the organization ( $r = .594, p < .001$ ) and is linked to effective identification of training and development needs ( $r = .594, p < .001$ ) and improved fairness and objectivity of performance evaluations ( $r = .596, p < .001$ ). Additionally, effective identification of training and development needs strongly correlates with improved fairness in evaluations ( $r = .632, p < .001$ ). These correlations suggest that AI enhances various aspects of performance management effectively.

## Findings

1. **Gender Balance in Perception of AI Impact:** The gender distribution among respondents was nearly equal, ensuring diverse perspectives on the impact of AI on organizational performance. Both male and female respondents showed similar views on the effectiveness of AI.
2. **Alignment of Individual and Organizational Goals:** A significant majority (84.8%) of respondents agreed that AI-powered systems effectively align individual goals with organizational objectives. This indicates that AI plays a crucial role in fostering a cohesive and goal-oriented workforce.
3. **Effectiveness in Identifying Performance Trends and Training Needs:** AI was highly rated for its ability to identify performance trends and training needs. Respondents consistently recognized AI's effectiveness in these areas, with high mean scores and low standard deviations, indicating general agreement and consistency in responses.
4. **Positive Impact on Performance Evaluation:** The data showed that AI contributes positively to the fairness and objectivity of performance evaluations. The correlation analysis revealed a strong positive relationship between AI implementation and improved performance evaluation processes.
5. **Improvement in Overall Employee Performance:** The study found a significant positive correlation between the use of AI in performance management and overall employee performance. AI's role in accurate and timely performance evaluations was seen as a key factor in boosting employee productivity.

## Suggestions

1. **Broaden AI Adoption Across Departments:** To maximize the benefits observed in performance management, organizations should consider broadening the adoption of AI tools across various departments. This will ensure that AI's positive impact is felt throughout the organization.
2. **Enhance Training and Development Programs:** Regular training programs focused on the use of AI in performance management should be implemented. This will help employees and managers to fully understand and utilize AI tools, thereby improving the effectiveness of AI systems.
3. **Continuous Monitoring and Upgrading of AI Systems:** Organizations should continuously monitor the effectiveness of their AI systems and invest in upgrading these technologies. This will ensure that AI tools remain aligned with organizational goals and continue to drive performance improvements.

## Conclusion

The research clearly demonstrates that artificial intelligence significantly enhances organizational performance by aligning individual goals with company objectives, improving the identification of training needs, and ensuring fair and objective performance evaluations. The strong positive correlations between AI and various performance metrics underscore its crucial role in optimizing employee performance and forecasting outcomes. As businesses continue to integrate AI into their operations, its impact on organizational success will only grow, making it essential for companies to invest in and leverage AI technologies effectively.

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