

AI and Its Impact on Workplace Stress Management and Employee Performance

1Sadiya Ali, 2Niti Sharma, 3Deepansh Agarwal, 4Dr. Shweta Gupta

1Student, 2Student, 3Student

1Sharda School of Business Studies

1Sharda University, Greater Noida, India

Abstract— This paper examines how Artificial Intelligence (AI) influences workplace stress management and employee performance. AI systems automate repetitive tasks, optimize scheduling, support decision-making, and provide wellness assistance through chatbots and analytics. These capabilities can lower workload pressure, improve engagement, and increase productivity. At the same time, AI may create technostress, privacy concerns, skill obsolescence, and job insecurity if poorly implemented. The study uses literature-based evidence and organizational indicators to assess both opportunities and risks. Findings suggest that transparent governance, employee training, ethical monitoring, and human-centered design are essential for successful AI adoption.

Index Terms— Artificial Intelligence, Workplace Stress, Employee Performance, Technostress, Productivity, Well-being.

Introduction

Artificial Intelligence is rapidly transforming modern organizations. Businesses now use AI for automation, forecasting, customer support, workflow management, and employee analytics. These technologies reduce manual workload and help employees focus on strategic tasks. Stress management has become equally important because unmanaged stress lowers concentration, motivation, and output. Therefore, understanding how AI can reduce or increase stress is highly relevant for sustainable organizational performance.

Literature Review

Prior studies show a strong negative relationship between excessive stress and employee productivity. Researchers such as Madhavi and Rao (2023) found that stress reduces job satisfaction and performance. Patro and Kumar (2019) reported that workplace stress interventions improve employee efficiency. Recent AI-focused studies by Gupta et al. (2024) and Shaikh et al. (2023) concluded that AI can improve productivity through knowledge sharing and better decisions. However, Xu and Lau (2025) highlighted that awareness of AI and robotics may also increase insecurity and stress.

Objectives

1. To study the effect of workplace stress on employee performance.
2. To analyze the role of AI in reducing stress through automation.
3. To identify AI-related stressors such as technostress and surveillance anxiety.
4. To recommend best practices for responsible AI implementation.

Methodology

The paper uses descriptive research based on primary themes from surveys and secondary data from journals, reports, and prior studies. Key variables include stress level, burnout, productivity, absenteeism, engagement, and AI usage. Comparative analysis is used to understand changes before and after AI adoption.

Results and Discussion

Evidence indicates that AI can significantly improve operational efficiency. Employees complete tasks faster, make fewer errors, and experience lower repetitive workload. AI scheduling tools distribute work more fairly, reducing burnout. Wellness tools may detect stress early and recommend interventions. However, organizations that introduce AI without communication or training often face resistance, fear of replacement, and privacy concerns. Thus, outcomes depend more on implementation quality than on technology alone.

Recommendations

Organizations should provide regular AI training, clarify that AI supports rather than replaces employees, maintain transparency in data use, limit intrusive monitoring, offer counseling and wellness support, and continuously review employee feedback after AI deployment.

Conclusion

AI has strong potential to improve workplace stress management and employee performance when used responsibly. It can reduce routine pressure, improve decision-making, and increase engagement. Nevertheless, unmanaged adoption may create new stressors. A balanced approach combining technology, ethics, communication, and employee development is necessary to achieve long-term success.

References

1. Madhavi AVR and B. Srinivas Rao (2023). A study of work stress and its impact on employees' performance and job satisfaction.
2. Velankani Catherine and Clayton Michael Fonceca (2022). Employee stress and its impact on job performance.
3. Elkana Timotius and Gilbert Sterling Octavius (2022). Stress at the workplace and its impacts on productivity.
4. Okechi Anthony Obiora et al. (2023). Effect of stress management strategies on employee job performance.
5. Amadi Justice Mezenyele (2024). Stress Management and Employees' Productivity Performance.
6. Patro, C.S. and Kumar, K.S. (2019). Effect of Workplace Stress Management Strategies on Employees' Efficiency.
7. Gupta, Priyanka; Lakhera, Girish; Sharma, Manu (2024). Examining the impact of artificial intelligence on employee performance in the digital era.
8. Shaikh, Fatima et al. (2023). Analyzing the Impact of Artificial Intelligence on Employee Productivity.
9. Xu, David Jiawei and Lau, Virginia Meng-Chan (2025). Dual impacts of AI and robotics awareness on work performance and stress.
10. Tiwari, Richa et al. (2024). The Impact of Artificial Intelligence in the Workplace and its Effect on Digital Wellbeing.