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A STUDY ON THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EMPLOYEE JOB SECURITY PERCEPTION AND WORKPLACE ANXIETY AMONG EMPLOYEES

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Abstract
Artificial Intelligence (AI) is increasingly changing how employees perform tasks, develop skills, and view their future careers. This study examines employees' perceptions of job security and workplace anxiety in the context of increasing AI use. A quantitative, descriptive research design was used with a structured questionnaire, and 83 usable responses were considered. Frequency, percentage, mean and exploratory Spearman correlation analyses were used. Across the 15 Likert-scale statements, 62.18% of the 1203 recorded responses were Agree or Strongly Agree. Respondents showed high awareness of AI and generally positive confidence in learning AI-related technologies, while concerns remained regarding job reduction, skill obsolescence, career uncertainty and job loss. The study also found a strong positive association between job-security concern and workplace anxiety in this sample (Spearman $\rho = 0.770$, $p < 0.001$). The findings indicate that AI is perceived both as a source of opportunity and as a source of employment uncertainty. Organizations can reduce uncertainty through relevant training, transparent communication, skill development and employee support.

Keywords: Artificial Intelligence, Employee Perception, Job Security, Job Insecurity, Workplace Anxiety, AI Adoption, Upskilling

1. Introduction

Artificial Intelligence has become an important technology in modern workplaces. Organizations are increasingly using AI-supported systems to automate routine activities, assist decision-making, analyze information and improve productivity. These changes can alter job roles and the skills expected from employees.

For employees, AI may therefore be experienced as both an opportunity and a source of uncertainty. AI-related skills may improve employability and job security, while automation and changing skill requirements may create concerns about job replacement, skill obsolescence and future career growth. Workplace anxiety may increase when employees are uncertain about how technological change will affect their roles.

The present study focuses on employees' perceptions of job security and workplace anxiety in the context of increasing AI use. It examines awareness of AI, perceived job replacement, job-security concerns, adaptation confidence, organizational training and AI-related workplace anxiety.

1.1 Research Gap

Existing research has examined AI adoption, job insecurity, AI anxiety and employee outcomes, but findings can vary across occupations, sectors and organizational settings. There is a continuing need for employee-level evidence on how awareness of AI relates to job-security perceptions and workplace anxiety. This study addresses that need using primary survey data from 83 respondents.

1.2 Objectives of the Study

- To examine employees' awareness and perceptions regarding the increasing use of Artificial Intelligence in the workplace.

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- To assess employees' perceptions of job security in the context of increasing AI use.
- To examine concerns regarding job replacement, skill obsolescence and career growth due to AI.
- To assess AI-related workplace anxiety among employees.
- To examine the relationship between AI-related perceptions, job-security concerns and workplace anxiety.
- To suggest measures that can help employees adapt to AI-driven workplace changes.

2. Literature Review

Tambe, Cappelli and Yakubovich (2019)

Discussed AI in Human Resource Management and highlighted opportunities as well as organizational challenges associated with AI adoption, including data, skills and implementation issues.

Song et al. (2024)

Examined AI-related anxiety and safety performance and highlighted the role of job insecurity and organizational human-resource support in technology-related employee outcomes.

Sharif et al. (2025)

Studied AI use, job insecurity and technostress in the hospitality industry and identified job insecurity as an important factor in
employee outcomes.

Soysal, Calişkan and Turgut (2025)

Examined anxiety about AI and nurses' perceptions of job security, showing that the relationship between AI anxiety and job-security perception can differ by context.

Fang, Tang and Yang (2026)

Examined how AI shapes job anxiety and emphasized AI-related stress as an important mechanism linking AI experiences with anxiety.

3. Research Methodology

Research Design: Quantitative and descriptive.

Sample Size: 83 responses were collected through a structured questionnaire.

Sampling: Convenience sampling was used for collecting responses from employees accessible to the researcher.

Data Collection Tool: A 20-question structured questionnaire containing five demographic questions and fifteen five-point Likert-scale statements.

Scale: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree.

Data Analysis: Frequency and percentage analysis were used for respondent characteristics and individual statements. Mean scores were calculated for selected constructs and Spearman correlation was used as an exploratory test of association.

4. Results and Discussion

The sample consisted of 83 respondents. One missing response was recorded in each demographic variable, while some Likert items also contained missing responses. Therefore, percentages for individual Likert statements are based on the recorded responses for that statement.

4.1 Age Group

Response	Frequency	Percentage
25–35 years	35	42.17%
Below 25 years	22	26.51%
36–45 years	14	16.87%
46–55 years	9	10.84%
Above 55 years	2	2.41%

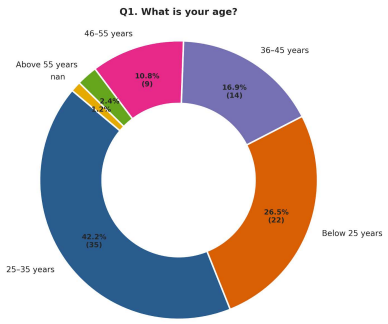

Figure 1. Age Group

4.2 Gender

Response	Frequency	Percentage
Female	43	51.81%
Male	38	45.78%
Prefer not to say	1	1.20%

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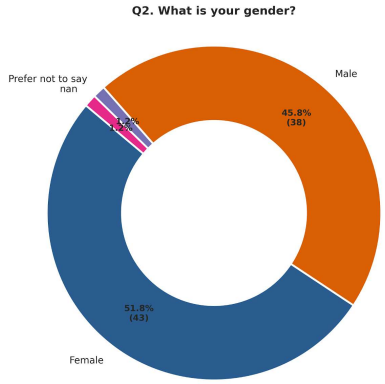

Figure 2. Gender

4.3 Educational Qualification

Response	Frequency	Percentage
Postgraduate	36	43.37%
Undergraduate	30	36.14%
Other	8	9.64%
Professional qualification	8	9.64%

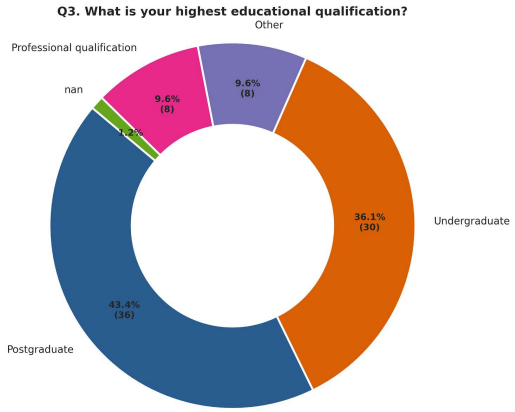

Figure 3. Educational Qualification

4.4 Work Experience

Response	Frequency	Percentage
1–5 years	29	34.94%
Less than 1 year	22	26.51%
6–10 years	14	16.87%
More than 15 years	10	12.05%
11–15 years	7	8.43%

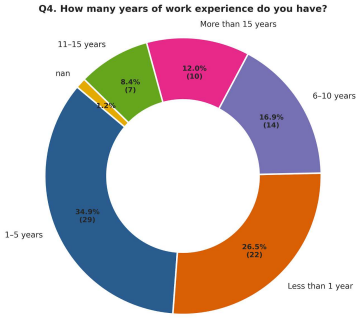

Figure 4. Work Experience

4.5 Employment Sector

Response	Frequency	Percentage
Other	24	28.92%
Education	18	21.69%
Banking/Finance	14	16.87%
IT/Technology	13	15.66%
Manufacturing	7	8.43%
Healthcare	5	6.02%
Retail	1	1.20%

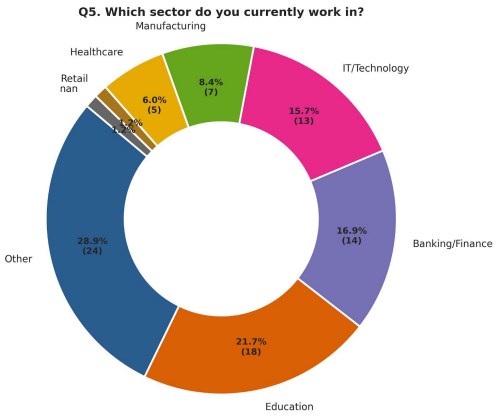

Figure 5. Employment Sector

4.6 Likert-Scale Analysis

Q	Statement	Agree/Strongly Agree
Q6	Q6. I am aware of the increasing use of Artificial Intelligence in my workplace.	73.17%
Q7	Q7. AI has changed the way tasks are performed in my workplace.	75.61%
Q8	Q8. I believe AI can replace some jobs currently performed by employees.	64.63%

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Q9	I am concerned that AI may reduce the number of jobs available in my organization.	61.73%
Q10	Q10. I feel that my current job could be affected by AI in the future.	48.75%
Q11	Q11. I feel secure about retaining my job despite the increasing use of AI.	62.50%
Q12	Q12. I believe employees with AI-related skills have better job security.	64.20%
Q13	Q13. I believe AI will create new job opportunities along with replacing some existing jobs.	61.73%
Q14	I worry that my current skills may become outdated because of AI.	61.25%
Q15	Q15. My organization provides adequate training to help employees adapt to AI.	64.56%
Q16	Q16. I feel confident about learning and adapting to AI-based technologies.	76.62%
Q17	Q17. The increasing use of AI makes me uncertain about my future career growth.	58.23%
Q18	Q18. The increasing use of AI makes me feel stressed or anxious about my work.	41.77%
Q19	I worry about losing my job because of AI or automation.	46.25%
Q20	Q20. I feel that the increasing use of AI creates pressure on employees to continuously improve their skills.	71.25%

Across all fifteen Likert statements, 748 of 1203 recorded responses (62.18%) were Agree or Strongly Agree. The highest positive response levels were observed for confidence in learning/adapting to AI-based technologies (Q16: 76.62%), awareness of increasing AI use (Q6: 73.17%) and AI-driven changes in task performance (Q7: 75.61%).

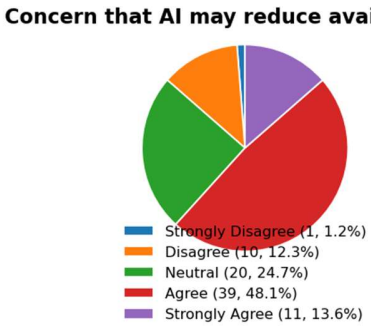

Figure 6. Concern that AI may reduce available jobs

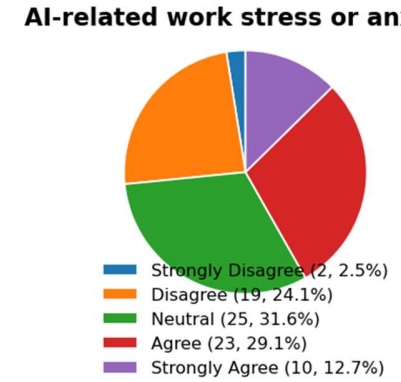

Figure 7. AI-related work stress or anxiety

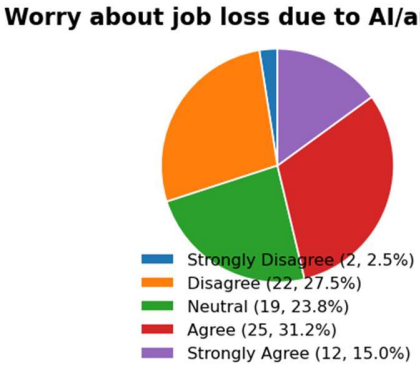

Figure 8. Worry about job loss due to AI/automation

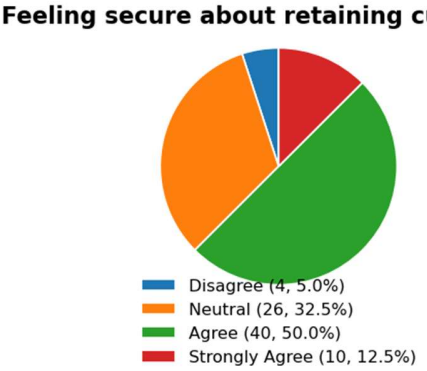

Figure 9. Feeling secure about retaining current job

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4.7 Construct-Level Analysis

Construct	Mean Score
AI awareness and workplace change	3.85
Job-security concern	3.48
Job-security/adaptation confidence	3.73
Workplace anxiety	3.49

Mean scores were calculated on a five-point scale where 1 = Strongly Disagree and 5 = Strongly Agree. The highest mean was observed for AI awareness/workplace change (3.85), followed by job-security/adaptation confidence (3.73), workplace anxiety (3.49) and job-security concern (3.48). These means indicate that respondents simultaneously recognized AI-related opportunities and reported meaningful uncertainty about employment and work-related stress.

4.8 Exploratory Correlation Analysis

Variables	Spearman ρ	p-value	n
AI awareness and workplace change vs. Job-security concern	0.378	< 0.001	82
Job-security concern vs. Workplace anxiety	0.770	< 0.001	80
Job-security/adaptation confidence vs. Workplace anxiety	0.117	0.300	80

The analysis showed a positive association between AI awareness/workplace change and job-security concern ($\rho = 0.378$, $p = 0.000$) and a strong positive association between job-security concern and workplace anxiety ($\rho = 0.770$, $p < 0.001$). The association between job-security/adaptation confidence and workplace anxiety was not statistically significant in this sample ($\rho = 0.117$, $p = 0.300$). These are associations in the sample and should not be interpreted as proof of causation.

4.9 Major Findings

- Employees showed substantial awareness of increasing AI use and its effect on workplace tasks.
- A majority of recorded Likert responses were positive (Agree/Strongly Agree), indicating broad recognition of AI-related workplace changes.
- Job-security concerns were present, particularly regarding possible reduction of jobs, skill obsolescence and future career uncertainty.
- Respondents generally expressed confidence in learning and adapting to AI-based technologies and recognized the value of AI-related skills.
- AI-related workplace anxiety was present but lower than general awareness and adaptation confidence.
- Job-security concern had a strong positive association with workplace anxiety in the sample.

4.10 Suggestions and Recommendations

- Organizations should provide practical AI upskilling and reskilling programs relevant to employees' existing roles.
- Management should communicate clearly about how AI will affect jobs, tasks and required skills to reduce uncertainty.
- Employees should be encouraged to develop digital, analytical and AI-related skills through continuous learning.
- Organizations should provide career-transition and internal-mobility support when automation changes existing roles.
- Employee concerns about stress and anxiety should be addressed through supportive communication, feedback mechanisms and appropriate HR interventions.
- AI implementation should maintain appropriate human oversight, transparency and responsible use of employee data.

4.11 Limitations of the Study

- The study is based on a relatively small sample of 83 respondents and uses convenience sampling.
- The findings reflect respondents' perceptions and are not direct measures of actual job loss or organizational AI adoption.

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- Some questionnaire items contain missing responses, so individual Likert percentages use the recorded responses for each item.
- The cross-sectional design does not establish causal relationships between AI exposure, job-security concern and workplace anxiety.
- The sample includes respondents from multiple sectors, so sector-specific differences were not examined in depth.

5. Conclusion

The study indicates that employees perceive Artificial Intelligence as an important workplace change that can create both opportunities and uncertainty. Respondents demonstrated relatively high awareness of AI, confidence in adapting to AI technologies and recognition of the value of AI-related skills. At the same time, concerns about job availability, skill obsolescence, career growth and job loss were evident. The strong association between job-security concern and workplace anxiety suggests that employment uncertainty is an important aspect of employees' psychological response to AI-related workplace change in this sample. Organizations can support a smoother transition by combining AI adoption with transparent communication, continuous upskilling, career support and employee-focused HR practices.

6. Acknowledgements

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