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The Impact of AI on Employment and Job Security: A Case Study of Palghar City

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Abstract

Purpose: *The rapid integration of artificial intelligence (AI) into the workforce is reshaping job markets globally. This study examines the impact of AI on employment and job security in Palghar City, focusing on workforce perceptions and preparation for AI-driven changes.*

Design/Methodology/Approach: *Primary Data was collected from 100 participants adopting Simple Random Sampling Method in Palghar City. Secondary data from government reports and industry studies supplemented the analysis. Data was interpreted using percentage analysis.*

Findings: *The study revealed that 61% of respondents believe their jobs are likely to be impacted by AI within a decade. While 54% recognized the critical need for upskilling, only 30% reported accessible reskilling opportunities. Sector-wise, manufacturing and clerical roles were perceived as most vulnerable. Despite low AI familiarity and 37% expected government intervention to mitigate job losses.*

Research Limitations: *The study is limited to Palghar City and a relatively small sample size (N=100).*

Research Implications: *The findings underscore the urgent need for localized reskilling programs and AI literacy campaigns. Educational institutions and policymakers must prioritize digital skill development and equitable access to training resources to align with AI-driven labor market demands.*

Paper Type: Research Paper

Keywords: *Artificial Intelligence, Job Security, Skill Adaptation, Workforce Resilience*

Introduction

The swift progress of Artificial Intelligence (AI) is transforming the global workforce by automating repetitive tasks while also creating new job opportunities. Estimates indicate that AI could generate between 20 and 50 million new jobs by 2030, particularly in fields such as healthcare, pharmaceuticals, and advanced manufacturing. Although some sectors might experience significant job losses, the overall economy is expected to gain from increased productivity and economic expansion. As AI technologies advance, it is increasingly essential to comprehend their effects on employment and economic systems. The incorporation of AI into the labor market is already leading to substantial shifts in job responsibilities and employment dynamics. Automation and smart systems are taking over manual and routine tasks, improving efficiency while requiring the workforce to adapt. In advanced manufacturing, for example, conventional roles are being transformed as employees must now acquire skills to operate and maintain machines powered by AI.

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At the same time, new job opportunities—such as data analysts, AI developers, and machine learning professionals—are arising, requiring a combination of technical skills and business knowledge.

This transformation highlights a significant change in labor demands, where future employment will emphasize technical skills, creativity, and adaptability. Nevertheless, the extensive implementation of AI also brings concerns about job displacement, skill shortages, and economic disparity. This paper investigates the dual effects of AI on employment, focusing on its influence on job creation, workforce development, and economic efficiency. Furthermore, it addresses the challenges and opportunities linked to AI integration, offering valuable insights for businesses, policymakers, and employees as they navigate this technological shift. By assessing current trends and future forecasts, this research seeks to enhance the discussion on AI's influence in shaping the future of work, providing evidence-based suggestions for a balanced and sustainable transition in the workforce.

According to a report by the World Economic Forum - The "Future of Jobs Report 2023" predicts that by 2027, 83 million jobs may be displaced by AI and automation, while 69 million new jobs will be created. This suggests a net loss of 14 million jobs.

Bureau of Labor Statistics (BLS):

- Projections indicate a 4.4% decline in claims adjusters, examiners and investigators by 2032, driven by AI-powered damage assessments.
- A 9.2% decrease is expected for insurance appraisers of auto damage within the same timeframe.
- Medical transcriptionists and customer service representatives are also projected to see declines of 4.7% and 5.0%, respectively.

As per the latest available Annual PLFS Reports, the estimated Worker Population Ratio (WPR) on usual status for people of age 15 years and above during the last three years are as follows:

Year	WPR in %
2020-21	52.6%
2021-22	52.9%
2022-23	56.0%

Source: PLFS, MoSPI

Literature of Review:

Objectives	Research Methodology	Data Analysis	Findings and Conclusion
Charlwood, A., & Guenole, N. (2022)			
Analyzed AI's transformative potential in HR, considering risks and opportunities in people management.	Applied a paradox lens theoretically to assess AI's dual impact on HR.	Suggested audit studies examine AI's role in recruitment biases.	AI improved HR fairness but risked managerial control and bias. HR professionals needed proactive engagement to shape AI's ethical use.
Mirbabaie, M., Brünker, F., Möllmann, N. R., & Stieglitz, S. (2022)			
Studied AI identity threats in workplaces, assessing how AI integration affected employees' professional identities.	The study conducted qualitative interviews and used PLS-SEM for analysis.	Calculated predictive relevance (Q^2) and controlled for demographics (insignificant impact).	Found AI caused identity threats due to work changes, status loss, and AI indispensability. The model explained 56% of variance in threats.
Ojiyi, G., Ayegbusi, W., Oji, I., & Aikabeli, B. (2023)			
Examined AI and automation's impact on job security, identifying positive and negative effects across sectors.	Used literature reviews and case studies with data triangulation for validation.	Combined qualitative and quantitative methods, emphasizing regional data for policy insights.	AI displaced some jobs but created new roles in tech fields. Further research was needed on policy and regional disparities.
Eshiett, I. O., & Eshiett, O. E. (2024)			
Explored the relationship between AI marketing (AIM)	The study conducted a systematic literature	Analyzed variables from previous studies	Found skill gaps affected customer satisfaction; management needed

and customer satisfaction, focusing on job security threats.	review using Google Scholar and applied the Technology Acceptance Model (TAM).	on AIM, job threats and customer satisfaction.	transitional policies to ease employee fears.
Soueidan, M. H., & Shoghari, R. (2024).			
Investigated the impact of AI adoption on job losses across industries and analyzed government responses to mitigate risks.	Adopted a qualitative methodology, collecting primary data from government reports, research papers, and expert opinions.	Data was analyzed thematically to understand challenges and opportunities in employment due to AI.	Findings indicated AI caused job displacement but also created new job categories. Governments needed policies to ensure societal benefits from AI.

Research Gap of The Study:

Despite extensive research on AI's impact on employment, several gaps remain:

- **Regional Disparities in AI-Driven Job Market Shifts:** Most studies focus on developed economies, with limited analysis of how AI affects employment in emerging markets (e.g., India, where the Worker Population Ratio has fluctuated between 52.6% and 56.0% in recent years).
- **Sector-Specific Job Displacement vs. Creation:** While projections (e.g., WEF's prediction of 83 million jobs displaced vs. 69 million created by 2027) highlight net job losses, there is insufficient granularity on which industries will face the most disruption and which will see growth.
- **Psychological and Professional Identity Threats:** Existing literature explores AI-induced identity threats but lacks empirical data on mitigation strategies for affected workers.
- **Policy and Reskilling Effectiveness:** Studies acknowledge the need for government intervention, but comparative analyses of reskilling programs across regions are scarce.

Research Questions:

- How does AI-driven automation affect job displacement and creation across different sectors, particularly in emerging economies?
- What are the key skill gaps and reskilling needs for workers transitioning into AI-augmented roles?
- What policy interventions are most effective in balancing AI-induced job losses with new employment opportunities?

Objectives:

- To analyze the sector-specific impact of AI adoption on employment in Palghar City, assessing job displacement in high-risk industries and emerging opportunities in AI-driven roles.
- To evaluate the preparedness of Palghar's workforce for AI integration, examining skill gaps, awareness levels and access to reskilling programs among local employees.
- To propose policy and industry-level strategies for mitigating job losses and fostering inclusive AI adaptation in Palghar's economy.

Research Methodology:

- **Data Source:** Primary Data collected through structured questionnaires distributed to workers, employers, and job seekers in Palghar City to assess AI's impact on employment trends, job security, and skill adaptation and Secondary Data collected were Government reports (e.g., PLFS, MoSPI), industry studies (e.g., WEF Future of Jobs Report), academic journals and news articles on AI and labor market shifts.
- **Sampling technique:** Simple Random Sampling is used to ensure unbiased representation of Palghar's workforce across sectors
- **Sample size:** 100 respondents from Palghar City, Maharashtra, India including employees, employers and unemployed individuals affected by AI-driven changes.
- **Study Period:** The study takes a period of three months from March 2025 to May 2025.
- **Data Analysis:** In this study, the data is analysed using percentage analysis of demographic profile of respondence.

Data Analysis and Interpretation:

1. Demographic Profile of the respondents:

Demographic Profile (N=100)	Items	Frequency	Percentage (%)
Age	18-25	12	12%
	26-35	88	88%
Gender	Female	64	64%
	Male	36	36%
Education	Doctoral Degree	1	1%
	Master's Degree	11	11%
	Bachelor's Degree	81	81%
	Junior College	7	7%
Occupation	Professional/Managerial	9	9%
	Self-Employed	3	3%
	Unemployed	1	1%
	Student	86	86%
	White-Collar worker	1	1%
Familiarity with AI	1 Not at all familiar	12	12%
	2	15	15%
	3	34	34%
	4	19	19%
	5 Very familiar	20	20%
Potential impact of AI on Job Security	1 Not at all concerned	17	17%
	2	22	22%
	3	31	31%
	4	21	21%
	5 Extremely concerend	9	9%
Job will be significantly impacted by AI in the next 10 years	Very Likely	23	23%
	Likely	38	38%
	Somewhat Likely	33	33%
	Unlikely	4	4%
	Very Unlikely	2	2%
Acquiring New Skills to adapt to the changing job market due to AI	1 Not at all important	3	3%
	2	9	9%
	3	34	34%
	4	23	23%
	5 Extremely important	31	31%
Upskilling and Reskilling to prepare for AI	1 Not at all available	12	12%
	2	20	20%
	3	38	38%
	4	13	13%
	5 Readily available	17	17%
Govt. responsible for mitigating AI negative impacts	1 Not at all responsible	7	7%
	2	16	16%
	3	40	40%

	4	18	18%
	5 Fully responsible	19	19%
(Source: Primary Data)			

Interpretation:

1. **Demographic Profile:**

- **Age:** 88% of the respondents are 26-35 years old, indicating a young workforce concerned about AI's impact.
- **Gender:** The Female respondents comprise of 64% and males are 36%, suggesting gendered perspectives on job security.
- **Education:** 81% hold bachelor's degrees, highlighting a moderately skilled sample.
- **Occupation:** 86% of students dominate, signaling youth anxiety about future AI-driven job markets.

2. **AI Familiarity & Job Security:**

- Only 20% are "very familiar" with AI, while 34% are moderately aware.
- 31% are neutral, but 30% (4+5 scores) express high concern about AI threatening jobs.
- 61% respondents believe that their jobs are "likely" or "very likely" to be affected by AI in 10 years.

3. **Skill Adaptation & Policy:**

- 54% (4+5 scores) deem acquiring new skills "extremely important" for AI adaptation.
- Only 30% find upskilling resources "readily available," revealing gaps in training access.
- 37% (4+5 scores) hold governments "responsible" for mitigating AI's negative effects.

Implications:

1. **Workplace Anxiety:** Students and young professionals are afraid that AI will replace them in their jobs, so they need to take steps to boost their confidence.
2. **Skill Gaps:** The urgent need for reskilling is highlighted by low familiarity with AI and high perceived job risks.
3. **Policy Action:** To close preparedness gaps, governments and educational institutions need to increase the number of easily accessible upskilling programs.
4. **Gender Dynamics:** Greater female survey participation might reflect vulnerabilities unique to a given sector.

Limitations of the Study:

1. **Sample Bias:** Perceptions may be distorted in comparison to real workforce experiences due to overrepresentation
2. **Geographic Focus:** Results from Palghar might not apply to other rural or urban areas.
3. **Simplified Metrics:** Likert-scale responses lack depth; qualitative interviews could enrich insights.
4. **Short Study Period:** Three months may not capture long-term AI adoption trends.

Conclusion:

This study investigated the impact of artificial intelligence (AI) on employment and job security in Palghar City, Maharashtra, through a survey of 100 respondents representing diverse workforce demographics. The findings reveal significant apprehension about AI-driven job displacement, particularly among younger workers (88% aged 26-35), coupled with emerging opportunities in AI-related roles.

Key insights indicate: (1) varying sectoral vulnerability to AI disruption, (2) a recognized need for upskilling (54% consider it extremely important) despite limited access to training resources (only 30% report adequate availability) and (3) strong expectations for government intervention in workforce transition (37% attribute significant responsibility to policymakers).

The study confirms AI's dual role as both disruptor and creator of employment opportunities in developing regions. It highlights the urgent need for targeted skill development initiatives, AI awareness programs, and collaborative policy measures to ensure equitable adaptation to technological change. While limited by its geographic focus and timeframe, the research provides a valuable framework for examining AI's labor market impacts in similar emerging economies. Future studies should incorporate longitudinal analysis and broader occupational representation to further validate these findings.

This work contributes to ongoing discourse on AI and employment by offering empirical evidence from an understudied regional context, while proposing practical strategies for inclusive workforce adaptation to technological transformation.

Scope for Future Research:

1. **Longitudinal Studies:** Track AI's real-world impact on Palghar's job market over 5–10 years.
2. **Sector-Specific Analysis:** Compare AI vulnerabilities in manufacturing, healthcare and informal sectors.
3. **Gender & AI:** Investigate how AI adoption disproportionately affects women in rural economies.
4. **Policy Evaluation:** Assess the effectiveness of state/federal reskilling initiatives in Maharashtra.

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Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Reference:

1. Soueidan, M. H., & Shoghari, R. (2024). The impact of artificial intelligence on job loss: risks for governments. Technium Soc. Sci. J., 57, 206.
2. Eshiett, I. O., & Eshiett, O. E. (2024). Artificial intelligence marketing and customer satisfaction: An employee job security threat review. World Journal of Advanced Research and Reviews, 21(1), 446-456.
3. Ojiyi, G., Ayegbusi, W., Oji, I., & Aikabeli, B. (2023). Job Security in the Artificial Intelligence and Automation Era.
4. Mirbabaie, M., Brünker, F., Möllmann, N. R., & Stieglitz, S. (2022). The rise of artificial intelligence–understanding the AI identity threat at the workplace. Electronic Markets, 1-27.
5. Charlwood, A., & Guenole, N. (2022). Can HR adapt to the paradoxes of artificial intelligence?. Human Resource Management Journal, 32(4), 729-742.
6. https://www.innopharmaeducation.com/blog/the-impact-of-ai-on-job-roles-workforce-and-employment-what-you-need-to-know
7. https://www.exin.com/article/the-impact-of-ai-on-the-future-job-market-understanding-the-changes/#:~:text=World%20Economic%20Forum%20(WEF)%3A,loss%20of%2014%20million%20jobs.
8. https://labour.gov.in/sites/default/files/pib2002657.pdf
9. https://www.weforum.org/
10. https://www.aon.com/en/insights/articles/how-artificial-intelligence-is-transforming-human-resources-and-the-workforce
11. https://possibleworks.com/blog/impact-of-ai-on-hr-profession/
12. https://www.gartner.com/en/human-resources/topics/artificial-intelligence-in-hr
13. https://www.forbes.com/sites/sap/2024/03/22/how-will-ai-impact-hr/
14. https://www.sciencedirect.com/science/article/pii/S2772662223000899
15. https://www.consultancy-me.com/news/8749/how-ai-is-transforming-human-resources-and-the-workforce