



Impact of artificial intelligence on organizations and employee job opportunities in Coimbatore

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Abstract

Artificial Intelligence (AI) has emerged as one of the most influential technological developments of the twenty-first century, reshaping the way organizations function and redefining the nature of work. From automating routine processes to supporting complex decision-making, AI applications are increasingly embedded across industries. This study examines the impact of Artificial Intelligence on organizations and employee job opportunities in Coimbatore, a prominent industrial and educational hub in Tamil Nadu. The research focuses on employee awareness and perceptions of AI, its role in job creation and job displacement, changes in skill requirements, productivity enhancement, and concerns related to job security. Primary data were collected from 100 employees working in manufacturing, information technology, and service sector organizations using a structured questionnaire. Descriptive statistical tools such as percentage analysis and mean score analysis was used for interpretation. The findings indicate that while AI adoption significantly improves efficiency, accuracy, and organizational performance, it also demands continuous reskilling and upskilling of employees. Employees largely perceive AI as a complementary technology that creates new opportunities rather than a complete threat to employment, provided adequate training and organizational support are available. The study offers practical insights for management, educators, and policymakers to manage AI-driven workforce transitions in a balanced and inclusive manner.

Keywords: Artificial intelligence, organizations, job opportunities, employees, Coimbatore, skill development

Introduction

Artificial Intelligence refers to the simulation of human intelligence in machines that are programmed to think, learn, and perform tasks that traditionally require human cognition. Over the past decade, rapid advancements in computing power, data availability, and machine learning algorithms have accelerated the adoption of AI across various sectors. Organizations today rely on AI-powered tools for functions such as customer relationship management, supply chain optimization, predictive maintenance, human resource analytics, and strategic decision-making.

Coimbatore, often referred to as the “Manchester of South India,” is well known for its strong base in textiles, manufacturing, engineering, education, and emerging IT services. With increasing digitalization and Industry 4.0 initiatives, organizations in Coimbatore are gradually integrating AI technologies to remain competitive in both domestic and global markets. While the benefits of AI adoption include improved productivity, reduced operational costs, and enhanced quality of output, the technology also raises significant concerns related to workforce displacement, changing job roles, and the need for new skill sets.

Objectives of the Study

The main objectives of the study are:

1. To analyze the level of awareness among employees regarding Artificial Intelligence applications in their organizations.
2. To examine employee perceptions about the impact of AI on job opportunities.
3. To study the influence of AI on productivity and work efficiency.
4. To identify changes in skill requirements and the need for reskilling and upskilling due to AI adoption.

5. To understand employee concerns related to job security in the context of AI-driven automation.

Research Methodology

1. Research Design

The study adopted a descriptive research design to understand employee perceptions and organizational practices related to Artificial Intelligence.

2. Sources of Data

- **Primary Data:** Collected through structured questionnaires
- **Secondary Data:** Journals, books, reports, and websites

3. Sample Size

The study is based on 100 employees working in various organizations in Coimbatore.

4. Sampling Technique

Convenience sampling technique was used due to accessibility and time constraints.

5. Tools Used for Analysis

- Percentage Analysis
- Mean Score Analysis

6. Period of Study

The study was conducted during the year 2025.

Sample Data Analysis Tables

Table 1: Gender of Respondents

Gender	Number of Respondents	Percentage
Male	58	58%
Female	42	42%
Total	100	100%

The data indicate a balanced representation of male and female employees, enabling diverse perspectives on AI adoption.

Table 2: Awareness of AI in Organizations

Awareness Level	Respondents	Percentage
High	45	45%
Moderate	40	40%
Low	15	15%
Total	100	100%

A majority of respondents possess moderate to high awareness of AI, reflecting growing exposure to digital technologies in organizations.

Table 3: Impact of AI on Job Opportunities

Opinion	Respondents	Percentage
Creates New Job Roles	48	48%
Reduces Traditional Jobs	22	22%
Both Positive & Negative	30	30%
Total	100	100%

Most employees believe AI creates new job roles, though a significant proportion acknowledges both positive and negative effects.

Table 4: Need for Skill Development due to AI

Response	Respondents	Percentage
Strongly Agree	40	40%
Agree	38	38%
Neutral	15	15%
Disagree	7	7%
Total	100	100%

The results clearly show a strong consensus on the need for continuous skill development to cope with AI-driven changes.

Results and Discussion

The analysis reveals that AI adoption has positively influenced organizational productivity, accuracy, and speed of operations. Employees report reduced workload in repetitive tasks, allowing them to focus on more strategic and value-added activities. However, concerns regarding job security are evident, particularly among employees with limited technical skills.

The study highlights that organizations investing in employee training, digital literacy programs, and transparent communication experience lower resistance to AI implementation. Employees view AI as a supportive tool rather than a replacement when organizations emphasize human-machine collaboration.

Findings

- Employees in Coimbatore exhibit moderate to high awareness of AI applications.
- AI is perceived as a creator of new job opportunities in areas such as data analysis, automation support, and system maintenance.
- Continuous learning and reskilling are considered essential for career sustainability.
- AI adoption improves productivity and operational efficiency.

- Job security concerns persist among employees lacking technical exposure.

Scope for Future Research

- Comparative studies on AI impact across different cities or regions.
- Sector-wise analysis of AI adoption in manufacturing, IT, and services.
- Longitudinal studies on AI and employment trends over time.
- In-depth analysis of AI adoption among MSMEs in Coimbatore.

Conclusion

Artificial Intelligence has become a transformative force influencing organizational performance and employee job opportunities in Coimbatore. While AI-driven automation reshapes traditional job roles, it simultaneously creates new avenues for employment and career growth. The key to maximizing AI benefits lies in employee adaptability, continuous skill development, and proactive organizational support. When implemented responsibly, AI can serve as an enabler of inclusive growth rather than a threat to employment. The study concludes that a balanced approach combining technological advancement with human development is essential for sustainable organizational success.

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