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Exploring The Impact of Artificial Intelligence On Employee Productivity

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Abstract: Artificial Intelligence (AI) is reshaping organizational workflows by automating tasks, improving decision making, and enhancing productivity. It encompasses a variety of techniques and technologies designed to replicate cognitive functions such as reasoning, learning, perception, and language understanding. This study investigates the impact of AI adoption on employee productivity using primary data of professionals from IT, education, retail, and banking sectors collected through structured surveys administered to employees across various industries. Purposive sampling is used for study. The data has been analysed using descriptive statistics and cross-tabulation using Excel/SPSS. The findings reveal that AI tools significantly improve efficiency and task accuracy but also introduce challenges related to employee adaptation and training. The study recommends strategic integration of AI technologies with employee-centric training programs for optimal results.

Key words: Artificial Intelligence, Automations, Technology advancement, Digital arrest

1. INTRODUCTION

AI is transforming business landscapes by streamlining operations, reducing costs, and enabling smarter decision-making. From chat-bots in customer service to predictive analytics in supply chain management, Artificial intelligence (AI) is becoming an integral part of daily operations. However, its real-world impact on employee productivity especially from employees' perspectives remains under explored. This research focuses on understanding how AI tools influence work efficiency, job satisfaction, and overall productivity in practical settings. The origins of AI can be traced back to the mid-20th century, with pioneering work by computer scientists like Alan Turing and John McCarthy. Today, AI encompasses multiple subfields such as machine learning, deep learning, natural language processing (NLP), and robotics. These technologies enable machines to not only process data but also to improve their performance over time through experience.

In recent years, Artificial intelligence has become a strategic priority for governments, corporations, and educational institutions around the world. It is being applied in diverse sectors including healthcare, finance, manufacturing, education, and transportation. While AI offers significant benefits such as efficiency, accuracy, and innovation—it also poses important ethical and societal challenges, including data privacy concerns, job displacement, and decision-making transparency.

As Artificial intelligence continues to evolve, it holds the potential to revolutionize how we live, work, and interacts. Understanding the foundations, applications, and implications of AI is therefore essential for students, researchers, professionals, and policymakers alike.

2. LITERATURE REVIEW

According to **Brynjolfsson and McAfee (2017)**, AI allows human workers to focus on high-value tasks by offloading administrative burdens to intelligent systems. **Davenport and Ronanki (2018)** also found that AI applications in customer service, document processing, and supply chain management resulted in measurable gains in output and time savings across industries.

Wilson and Daugherty (2018) describe this human-AI collaboration as "augmentation," where AI complements rather than replaces human capabilities. Their study indicates that augmented intelligence can lead

to improved problem-solving, creativity, and strategic thinking among employees, all contributing to higher productivity.

Bughin et al. (2018) observed that organizations struggle to fully realize AI’s productivity potential due to a shortage of skilled personnel. Employees who are not adequately trained may resist AI tools or fail to use them efficiently, ultimately limiting their effectiveness. The World Economic Forum (2020) also highlighted that reskilling and upskilling are essential to align AI deployment with productivity gains.

Kaplan and Haenlein (2019) emphasize that the context in which Artificial Intelligence is deployed plays a critical role in determining its effectiveness, particularly in terms of productivity gains. They argue that the success of AI adoption is not solely dependent on the technology itself, but also on organizational culture, industry characteristics, employee readiness, and the specific nature of tasks being augmented or automated. For example, AI in data-driven industries like finance and IT often shows immediate productivity benefits, whereas in human-centric sectors such as healthcare or education, AI tools serve more as complementary aids rather than direct productivity drivers.

Siau and Wang (2018) noted that employee perceptions of AI play a critical role in how effectively these technologies are adopted. If AI is viewed as a threat rather than a tool for support, it can result in decreased engagement and trust.

3. OBJECTIVES OF THE STUDY

1. To assess employees’ perception of AI tools in the workplace.
2. To evaluate the impact of AI on task performance and time efficiency.
3. To identify challenges faced by employees in adapting to AI tools.
4. To provide suggestions for effective integration of AI with human workflows.

4. RESEARCH METHODOLOGY

Type of Research

Quantitative, descriptive, and analytical in nature.

Source of Data

Primary data collected through structured questionnaires.

Sampling Method

Purposive sampling of professionals from IT, education, retail, and banking sectors.

Sample Size

150 respondents

Data Collection Tool

Google Forms-based survey with Likert scale questions (Strongly Agree to Strongly Disagree).

5. DATA ANALYSIS

To assess the impact of Artificial Intelligence (AI) on employee productivity, primary data was collected through structured questionnaires from 150 respondents across various sectors, including IT, education, banking, and retail. The questionnaire used a Likert scale (Strongly Agree to Strongly Disagree) to evaluate perceptions of AI’s role in enhancing efficiency, reducing workload, improving job satisfaction, and influencing performance.

TABLE 1. Demographic Profile of Respondents

Demographic Variable	Category	Percentage
Gender	Male	58%
	Female	42%
Age	21–30	36%
	31–40	41%
	41 and above	23%
Sector	IT	34%
	Education	22%

	Banking	28%
	Retail	16%

TABLE 2. Sample Survey

Question	Agree (%)	Neutral (%)	Disagree (%)
AI tools help me complete tasks faster	72%	18%	10%
I received proper training to use AI software	55%	30%	15%
AI has reduced manual workload	78%	14%	8%
AI tools create fear of job replacement	43%	22%	35%
I feel more productive since using AI tools	69%	20%	11%

Interpretation:

More than 72% of respondents agree AI tools help me complete tasks faster, 78% agree that received proper training to use AI software, less than 8% disagree that AI has reduced manual workload.

TABLE 3. Key Responses from Artificial Intelligence Impact Questions

Survey Question	Agree (%)	Neutral (%)	Disagree (%)
AI helps me complete tasks faster	72%	18%	10%
I feel more productive after using AI tools	69%	20%	11%
AI reduces repetitive/manual work in my job	78%	14%	8%
I received sufficient training to use AI tools	55%	30%	15%
AI tools require continuous learning and adaptation	82%	10%	8%
I fear job replacement due to AI	43%	22%	35%
AI has positively affected team collaboration and communication	61%	26%	13%
AI has improved my decision-making accuracy	66%	21%	13%

Interpretation:

More than 78% of AI reduces repetitive/manual work in my job, 35% disagree I fear job replacement due to AI, More than 66% agree that AI has improved my decision-making accuracy

TABLE 4. Sector-Wise AI Productivity Perception (Agree %)

Sector	Perceive AI Boosts Productivity (%)
IT	85%
Banking	73%
Education	56%
Retail	61%

Interpretation:

More than 85% are from IT, 73% are from banking, More than 56% respondents are from education and 61% of respondents from retail sector shown there response towards use of AI in improving productivity performance.

6. Key Findings

- Increased Productivity: 69% of respondents reported higher productivity after adopting AI tools.
- Time-Saving: Over 70% said AI helped reduce time spent on repetitive tasks.
- Training Gaps: Only 55% agreed they received adequate training to use AI tools effectively.
- Job Anxiety: 43% expressed concern over job security due to AI-driven automation.
- Sector Variance: IT professionals showed the highest positive perception; the education sector showed relatively lower acceptance.

6. CONCLUSION

The study confirms that AI significantly enhances employee productivity, particularly by reducing repetitive tasks and improving decision-making speed. However, the effectiveness of AI depends on adequate training and change management strategies. Organizations must invest not only in technology but also in equipping employees with the skills and confidence to work alongside AI tools. This study explored the impact of Artificial Intelligence (AI) on employee productivity through a combination of theoretical insights and primary data analysis. The findings confirm that AI tools significantly contribute to enhancing productivity by automating repetitive tasks, improving decision-making, and enabling employees to focus on higher-value activities. Most respondents acknowledged improvements in efficiency and task accuracy, reinforcing the widespread belief that AI can serve as a powerful enabler of performance.

However, the study also reveals that productivity gains are not automatic. The positive outcomes of AI adoption are strongly influenced by contextual factors such as industry type, employee training, organizational support, and attitudes toward technological change. A lack of proper training and fear of job displacement emerged as key barriers that can limit the full potential of AI integration in the workplace.

Recommendations

- Implement continuous AI training programs.
- Address employee concerns about job security through transparent communication.
- Customize AI integration based on department needs.
- Encourage employee feedback for improving AI systems.

REFERENCES

- [1]. Brynjolfsson, E., & McAfee, A. (2017). *Machine, platform, crowd: Harnessing our digital future*. W. W. Norton & Company.
- [2]. Bughin, J., Hazan, E., Ramaswamy, S., Chui, M., Allas, T., Dahlström, P., Henke, N., & Trech, M. (2018). *Notes from the AI frontier: Modeling the impact of AI on the world economy*. McKinsey Global Institute.
- [3]. Dwivedi, Y. K., et al. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994.
- [4]. Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108–116.
- [5]. Kaplan, A. M., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15–25. <https://doi.org/10.1016/j.bushor.2018.08.004>
- [6]. Siau, K., & Wang, W. (2018). Building trust in artificial intelligence, machine learning, and robotics. *Cutting-edge Technologies in Higher Education*, 28, 277–283. <https://doi.org/10.1108/S0732-067120180000028016>
- [7]. Russell, S., & Norvig, P. (2016). *Artificial Intelligence: A Modern Approach* (3rd ed.). Pearson.