



A Study on Impact of Artificial Intelligence on Tech Mahindra Operational Efficiency

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Abstract:

Artificial Intelligence (AI) has emerged as a transformative technology that enhances operational efficiency in modern organizations. Companies in the information technology sector are increasingly integrating AI tools and automation to improve productivity, reduce operational costs, and enhance service quality. This study focuses on analyzing the impact of Artificial Intelligence on operational efficiency at Tech Mahindra. The research aims to understand how AI-based technologies such as automation, machine learning, and data analytics influence business processes and employee productivity. The study uses both primary and secondary data sources. Primary data was collected through a questionnaire survey of 50 respondents, including employees and professionals familiar with AI technologies. Secondary data was collected from journals, company reports, and websites. The analysis highlights that AI implementation significantly improves decision-making speed, reduces human error, and enhances overall operational performance. The findings indicate that AI adoption contributes positively to productivity and service efficiency in Tech Mahindra. The study concludes that continued investment in AI technologies will further strengthen operational effectiveness and competitiveness in the IT industry.

Keywords: Artificial Intelligence, Operational Efficiency, Automation, Tech Mahindra.

Introduction:

Artificial Intelligence (AI) has become one of the most influential technological advancements in the modern business environment. AI refers to computer systems designed to perform tasks that normally require human intelligence, such as decision-making, problem-solving, and data analysis. In the IT industry, companies are increasingly adopting AI technologies to improve efficiency and optimize operational processes.

Tech Mahindra, a leading IT services and consulting company, has actively implemented AI-driven solutions to enhance productivity, automate repetitive tasks, and improve customer

service. AI technologies help organizations analyze large volumes of data quickly and accurately, enabling better decision-making and faster service delivery.

The integration of AI in business operations has significantly changed the way organizations function. Automation and intelligent systems help reduce operational costs, improve accuracy, and enhance employee productivity. This study examines how AI technologies impact operational efficiency within Tech Mahindra and evaluates their benefits for organizational performance.

Problem Statement:

Despite rapid technological advancements, many organizations face challenges in understanding the practical impact of Artificial Intelligence on operational efficiency. There is a need to evaluate how AI adoption influences productivity, cost reduction, and service performance in companies like Tech Mahindra.

Literature Review:

1. Davenport and Ronanki (2018) studied the role of Artificial Intelligence in business operations. Their research found that AI applications such as automation and predictive analytics significantly improve operational efficiency and decision-making.

2. Brynjolfsson and McAfee (2017) examined the economic impact of AI technologies in organizations. They concluded that AI enhances productivity and reduces operational costs by automating repetitive tasks.

3. Kaplan and Haenlein (2019) explored the applications of Artificial Intelligence in business management. The study highlighted that AI-driven tools help organizations improve service delivery and customer satisfaction.

4. Chui, Manyika, and Miremadi (2016) conducted research on automation technologies and their impact on the workforce. Their study revealed that AI increases productivity and operational efficiency across multiple industries.

Objectives of The Study:

1. To analyze the role of Artificial Intelligence in improving operational efficiency at Tech Mahindra.
2. To examine the impact of AI technologies on employee productivity.
3. To evaluate the benefits of AI adoption in business processes.

Research Questions:

1. How does Artificial Intelligence influence operational efficiency in Tech Mahindra?
2. Does AI implementation improve employee productivity?
3. What are the key benefits of adopting AI technologies in IT companies?

Research Methodology:**1. Research Design:**

The research uses a **descriptive research design** to analyze the impact of Artificial Intelligence on operational efficiency.

2. Sample Size:

The study is based on **50 respondents**.

3. Sample Area:

The sample area includes employees and professionals related to **Tech Mahindra operations in Hyderabad**.

4. Data Collection:**Primary Data:**

- Questionnaire survey conducted among respondents.

Secondary Data:

- Research journals
- Company reports
- Books
- Websites

5. Sampling Technique:

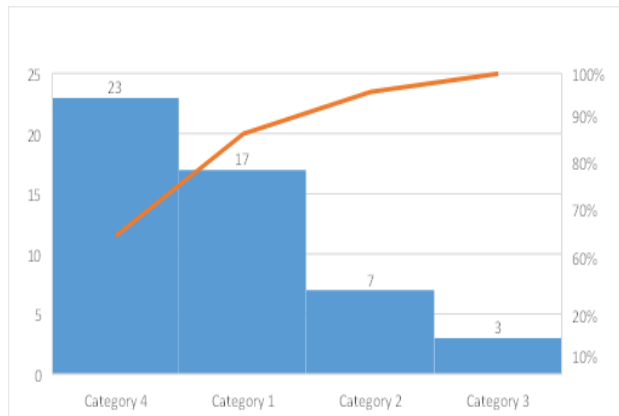
The study uses **convenience sampling technique** to collect responses from participants.

Data Analysis:

Table 1: Respondents' Opinion on AI Improving Work Efficiency

Response	Number of Respondents	Percentage
Strongly Agree	20	40%
Agree	18	36%
Neutral	7	14%
Disagree	3	6%
Strongly Disagree	2	4%

Graph 1: Bar chart showing respondents' opinion on AI improving work efficiency



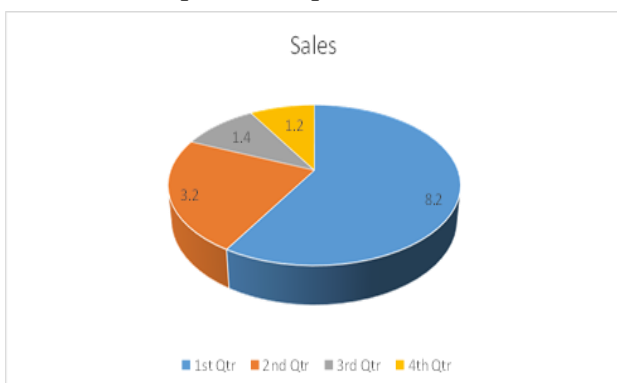
Interpretation:

The majority of respondents (76%) either strongly agree or agree that Artificial Intelligence improves work efficiency in Tech Mahindra. This indicates that AI technologies significantly contribute to enhancing productivity and reducing workload.

Table 2: Impact of AI on Operational Performance

Impact Level	Number of Respondents	Percentage
High Impact	22	44%
Moderate Impact	16	32%
Low Impact	8	16%
No Impact	4	8%

Graph 2: Pie chart showing impact level of AI on operational performance



Interpretation:

The results indicate that **44% of respondents believe AI has a high impact** on operational performance. Only a small percentage perceive little or no impact. This demonstrates that AI plays a major role in improving operational efficiency within Tech Mahindra.

Findings:

- Artificial Intelligence significantly improves operational efficiency in Tech Mahindra.
- AI technologies help automate repetitive tasks and reduce human errors.
- Most respondents believe AI improves productivity and decision-making speed.
- AI-driven data analysis helps organizations make faster and more accurate decisions.

Suggestions:

- Tech Mahindra should continue investing in advanced AI technologies.
- Training programs should be provided to employees to improve AI-related skills.
- Organizations should integrate AI with existing systems for better operational performance.
- AI-based automation tools should be expanded across different departments.

Conclusion:

Artificial Intelligence has become a crucial component in improving operational efficiency in modern organizations. The study reveals that AI technologies play an important role in enhancing productivity, reducing operational costs, and improving decision-making in Tech Mahindra. The findings indicate that AI adoption positively influences business processes and operational performance. As AI technologies continue to evolve, organizations like Tech

Mahindra can gain a competitive advantage by effectively integrating AI into their operational strategies. Continuous investment in AI research and employee training will further strengthen the company's operational efficiency and long-term growth.

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