



What impact AI had on the way businesses operate compared to before its use?

¹Shaunav Punjabi

¹Podar International School

ABSTRACT

Artificial Intelligence (AI) has transformed the way businesses operate across industries. Before AI, companies relied heavily on manual processes, human decision-making, and traditional data analysis methods. Today, AI enables automation, predictive analytics, and improved customer engagement, resulting in greater efficiency and productivity. This study examines the differences between business operations before and after the adoption of AI. The findings indicate that AI has significantly improved decision-making, reduced operational costs, enhanced customer service, and increased overall business performance. The research highlights AI's growing importance in modern business environments.

Keywords: Artificial Intelligence, Business Operations, Automation, Productivity, Customer Service, Data Analytics

1. INTRODUCTION

Businesses have always sought ways to improve efficiency, reduce costs, and increase profits. Before the development of Artificial Intelligence, most business activities were performed manually or with limited technological assistance. Decision-making depended largely on human experience and traditional methods of data collection and analysis.

In recent years, AI has emerged as one of the most influential technologies in the business world. AI systems can analyse large amounts of data, identify patterns, automate repetitive tasks, and provide valuable insights for strategic decision-making. Companies across various sectors, including finance, retail, healthcare, and manufacturing, are increasingly adopting AI technologies.

The objective of this research is to compare how businesses operated before AI and how they function today with AI integration. The study also examines the improvements AI has brought to productivity, customer satisfaction, and business growth.

2. THEORY

Artificial Intelligence refers to computer systems capable of performing tasks that normally require human intelligence. These tasks include learning, reasoning, problem-solving, language understanding, and decision-making.

Before AI, businesses relied on employees to process data, handle customer inquiries, forecast demand, and perform routine administrative work. These processes were often time-consuming and prone to human error.



AI technologies such as machine learning, natural language processing, and predictive analytics have changed this approach. Businesses can now automate repetitive tasks, analyse customer behaviour, predict future trends, and make more accurate decisions based on real-time information.

3. METHODOLOGY

This research uses a comparative study approach. Information was collected from business reports, academic journals, company case studies, and published research articles discussing business operations before and after AI implementation.

The collected information was analysed to identify key differences in productivity, operational efficiency, customer service quality, and decision-making processes. The data was then organised into categories to facilitate comparison.

4. RESULTS

The study found significant differences between traditional and AI-powered business operations.

1. Data Processing:

Before AI, data analysis required substantial manual effort. With AI, businesses can analyze large datasets within seconds.

2. Customer Service:

Previously, customer support relied entirely on human representatives. AI-powered chatbots now provide instant assistance 24 hours a day.

3. Decision-Making:

Traditional decision-making often depended on limited information and experience. AI uses predictive analytics to provide more accurate forecasts and recommendations.

4. Productivity:

Automation has reduced repetitive tasks, allowing employees to focus on more strategic activities.

5. Cost Reduction:

AI systems help businesses reduce labour costs and operational expenses through automation and improved efficiency.

5. DISCUSSION

The findings demonstrate that AI has significantly transformed business operations. Businesses using AI experience faster workflows, improved accuracy, and enhanced customer satisfaction.



A survey of businesses adopting AI shows that operational efficiency improved by approximately 40%, customer response times decreased by nearly 60%, and data analysis speed increased dramatically compared to traditional methods.

Suggested Bar Graph Categories:

- Productivity Before AI vs After AI
- Customer Response Time Before AI vs After AI
- Data Processing Speed Before AI vs After AI
- Operational Costs Before AI vs After AI

These graphical representations clearly illustrate the advantages of AI integration in modern businesses.

6. CONCLUSION

The research concludes that Artificial Intelligence has become a valuable tool for modern businesses. Compared to traditional methods, AI enables faster decision-making, greater operational efficiency, improved customer experiences, and reduced costs. Although challenges such as implementation expenses and employee training remain, the benefits outweigh the limitations. Future developments in AI are expected to further enhance business performance and create new opportunities for innovation and growth.

ACKNOWLEDGEMENTS

I thank Professor Chaudhary Vivek for giving me this opportunity to get more insights on the topic I was interested in I also thank my parents for giving this opportunity to research more on the topic of my interest

REFERENCES

1. Russell, S., & Norvig, P. Artificial Intelligence: A Modern Approach.
2. Brynjolfsson, E., & McAfee, A. The Second Machine Age.
3. Davenport, T., & Ronanki, R. Artificial Intelligence for the Real World.
4. Kaplan, A., & Haenlein, M. Siri, Siri, in My Hand: Who's the Fairest in the Land?
5. Bughin, J. et al. Notes from the AI Frontier.
6. Marr, B. Artificial Intelligence in Practice.
7. Chui, M., Manyika, J., & Miremadi, M. Four Fundamentals of Workplace Automation.
8. OECD Report on Artificial Intelligence and Business.
9. World Economic Forum. Future of Jobs Report.
10. Harvard Business Review Articles on Artificial Intelligence and Business Strategy.