



Impact of Artificial Intelligence in Accounting and Finance

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Abstract

Artificial Intelligence (AI) is transforming accounting and finance by automating routine tasks, improving decision-making, enhancing financial reporting accuracy, and strengthening fraud detection systems. AI technologies such as machine learning, robotic process automation (RPA), and natural language processing enable organizations to process large volumes of financial data efficiently and generate predictive insights for strategic decisions. This study examines the impact of AI on accounting and financial practices including auditing, financial analysis, risk management, and compliance. The research adopts a descriptive methodology using secondary data from journals, industry reports, and academic publications. The findings indicate that AI improves operational efficiency, transparency, and real-time financial reporting while also creating challenges such as data privacy concerns, high implementation costs, and skill gaps. The study concludes that AI will not replace accountants but will transform their role toward strategic advisory functions.

Keywords: Artificial Intelligence, Accounting, Finance, Automation, Financial Analytics, Digital Transformation

1. Introduction

The accounting and finance profession has experienced significant transformation due to the emergence of digital technologies. Artificial Intelligence (AI) has become one of the most influential technologies shaping modern financial management. AI refers to computer systems capable of performing tasks that normally require human intelligence such as learning, reasoning, and decision-making. In accounting and finance, AI technologies are used for automated bookkeeping, fraud detection, financial forecasting, and auditing. These systems process vast amounts of data faster than traditional methods, improving efficiency and accuracy in financial operations.

2. Review of Literature

Several studies highlight the transformative role of AI in accounting and finance. Researchers have found that AI enhances productivity, reduces human error, and improves financial reporting quality. Studies also suggest that AI-based analytics helps organizations detect fraud patterns and predict financial risks more accurately. Despite these benefits, scholars emphasize the need for training accounting professionals to adapt to AI-driven environments.

3. Objectives of the Study

- To examine the role of Artificial Intelligence in accounting and finance.
- To analyze the benefits of AI adoption in accounting practices.
- To identify challenges associated with AI implementation.
- To evaluate the impact of AI on accounting professionals.

4. Hypotheses of the Study

H1: Artificial Intelligence significantly improves efficiency in accounting processes.

H2: AI adoption positively influences financial reporting accuracy.

H3: AI enhances fraud detection and financial risk management.

H4: AI adoption changes the skill requirements of accounting professionals.

5. Research Methodology

The study follows a descriptive research design based on secondary data sources including academic journals, industry reports, books, and professional publications. Analytical interpretation of existing research findings has been used to evaluate the role of AI in accounting and finance.

6. Applications of Artificial Intelligence in Accounting

AI Application	Description
Automated Bookkeeping	AI systems automatically record transactions and maintain financial records.
Fraud Detection	Machine learning algorithms detect unusual financial patterns and anomalies.
Financial Forecasting	Predictive analytics helps forecast revenues, costs, and financial trends.
art Auditing	AI enables continuous auditing and analysis of large datasets.
Tax Compliance	Automated systems assist in tax calculation and regulatory reporting.

7. Benefits of AI in Accounting and Finance

- Improved efficiency through automation of routine tasks
- Higher accuracy in financial reporting
- Real-time financial insights for decision-making
- Reduction in operational costs
- Enhanced fraud detection capabilities

8. Challenges of AI Adoption

- Data privacy and cybersecurity risks
- High cost of technology implementation
- Lack of technical skills among accounting professionals
- Ethical and regulatory concerns
- Integration with legacy accounting systems

9. Findings of the Study

- AI significantly improves efficiency in accounting processes.
- Financial reporting accuracy increases with AI-based systems.
- AI enhances fraud detection and risk management.
- The role of accountants is shifting toward strategic advisory services.

10. Conclusion

Artificial Intelligence is reshaping the accounting and finance profession by automating routine processes and improving financial decision-making. Although AI offers several advantages such as efficiency, accuracy, and predictive analytics, its implementation requires skilled professionals and strong data governance systems. In the future, AI will complement the role of accountants rather than replace them, enabling them to focus on strategic financial management.

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