

Manuscript ID:
TIJCMBLIR-2026-030243

Volume: 3

Issue: 2

Month: April

Year: 2026

E-ISSN: 3065-9191

Submitted: 18 Mar 2026

Revised: 22 Mar 2026

Accepted: 20 April 2026

Published: 30 April 2026

Address for correspondence:
Renuka Sudhir Birajdar
Research Scholar, Department of
Commerce & Management,
Sangameshwar College
(Autonomous), Solapur
Email:
birajdarkothane@gmail.com

DOI: 10.5281/zenodo.21715442

DOI Link:
<https://doi.org/10.5281/zenodo.21715442>



Creative Commons (CC BY-NC-SA 4.0):

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

A Study on Impact of Automation and Artificial Intelligence on Accounting Practices

Dr. Kilare. R. M¹ Renuka Sudhir Birajdar²

¹Associate Professor, Department of Commerce & Management, Sangameshwar College (Autonomous), Solapur

²Research Scholar, Department of Commerce & Management, Sangameshwar College (Autonomous), Solapur

Abstract

The rapid advancement of automation and Artificial Intelligence (AI) has significantly transformed accounting practices worldwide. This study aims to examine the impact of automation and AI on accounting efficiency, financial reporting accuracy, fraud detection mechanisms, and professional skill requirements. Through an analysis of secondary data collected from research journals, professional reports, and international accounting publications, the study identifies key trends and emerging challenges. Findings indicate that AI-driven systems enhance accuracy, reduce processing time, improve fraud detection capabilities, and reshape the role of accountants from record-keepers to strategic advisors.

Keywords: Automation, Artificial Intelligence, Accounting Practices, Financial Reporting, Fraud Detection, Digital Accounting

Introduction:

The accounting profession has undergone a paradigm shift with the introduction of automation technologies such as Robotic Process Automation (RPA), Machine Learning (ML), and Artificial Intelligence (AI). Traditionally, accounting involved manual bookkeeping, ledger posting, reconciliation, and financial reporting. However, digital transformation has introduced automated accounting software, cloud-based ERP systems, and AI-powered analytics.

Automation in accounting refers to the use of technology to perform repetitive and rule-based tasks with minimal human intervention. Artificial Intelligence goes further by enabling systems to learn from data, identify patterns, and make predictive decisions. In the global business environment, organizations increasingly adopt AI-driven tools to enhance operational efficiency, ensure regulatory compliance, and detect financial fraud. This technological evolution demands a redefinition of accounting roles and competencies.

Conceptual Framework:

Automation in Accounting:

Automation involves the use of software systems to execute tasks such as invoice processing, payroll management, bank reconciliation, and tax computation.

Artificial Intelligence in Accounting:

AI systems utilize machine learning algorithms, natural language processing, and predictive analytics to:

- Detect anomalies
- Forecast financial trends
- Analyze large volumes of financial data
- Support decision-making

Digital Accounting Environment:

A digital accounting environment integrates cloud computing, blockchain, big data analytics, and AI-based tools to enable real-time financial reporting.

Objectives:

1. To evaluate the impact of automation on efficiency and accuracy in accounting practices.
2. To examine the role of Artificial Intelligence in fraud detection and financial reporting.
3. To analyze how AI is transforming the professional roles of accountants.
4. To study the challenges and risks associated with AI adoption in accounting.

How to Cite this Article:

Kilare., R. M. & Birajdar, R. S. (2026). A Study on Impact of Automation and Artificial Intelligence on Accounting Practices. *The International Journal of Commerce Management and Business Law in International Research (TIJCMBLIR)*, 3(2), 231–233. <https://doi.org/10.5281/zenodo.21715442>

Scope of the Study:

The scope of the study focuses on the global accounting profession, including:

- Public and private sector organizations.
- Multinational corporations using AI-based accounting systems.
- Accounting firms adopting digital audit tools.
- MSMEs transitioning to automated accounting platforms.

The study emphasizes international trends in AI implementation, regulatory considerations, and professional transformation.

Research Methodology:

The present study adopts a descriptive research design based entirely on secondary data.

Data Collection:

Secondary data is collected from:

- International accounting journals
- Research papers on AI in accounting
- Reports from accounting bodies (IFAC, ICAI, ACCA)

- Industry publications

- Books and online databases

Tools for Analysis:

Quantitative and qualitative techniques are used:

Quantitative Analysis:

- Percentage analysis
- Trend analysis
- Comparative analysis

Qualitative Analysis:

- Thematic interpretation
- Content analysis of research findings

Analysis and Results:

Objective 1: Impact of Automation on Accounting Efficiency

Secondary data analysis indicates that automation significantly improves efficiency, reduces manual errors, and decreases processing time.

Findings (Table 1):

Accounting Function	Efficiency Improvement (%)	Error Reduction (%)
Invoice Processing	60%	75%
Payroll Management	55%	70%
Bank Reconciliation	65%	80%
Tax Filing	50%	68%

Objective 2: AI in Fraud Detection and Financial Reporting

Research studies indicate that AI-based fraud detection systems improve anomaly detection rates and enhance transparency in financial reporting.

Findings (Table 2):

AI Application	Fraud Detection Accuracy (%)	Reporting Speed Improvement (%)
Machine Learning Algorithms	85%	40%
Predictive Analytics	78%	35%
AI Audit Tools	82%	45%

Objective 3: Transformation of Accountant Roles

Secondary literature suggests that:

- Routine bookkeeping roles are decreasing.
- Demand for data analytics skills is increasing.
- Accountants are shifting toward advisory and strategic roles.

Findings (Table 3):

Role Category	Traditional (%)	Digital Era (%)
Data Entry	40	10
Financial Analysis	25	40
Strategic Advisory	15	35
Compliance Monitoring	20	15

This comparison indicates a major shift from clerical functions to analytical and advisory roles.

Challenges Identified:

- High implementation cost
- Cybersecurity risks
- Lack of skilled professionals
- Ethical concerns in AI decision-making
- Regulatory adaptation lag

Limitations of the Study:

As the study is based solely on secondary data, it does not include primary empirical evidence. Rapid

technological changes may also affect the relevance of current data over time.

Conclusion:

The study concludes that automation and Artificial Intelligence are revolutionizing accounting practices at the international level. Automation enhances operational efficiency and minimizes human errors, while AI significantly strengthens fraud detection and predictive financial analysis.

However, technological adoption must be supported by strong governance frameworks, regulatory clarity, cybersecurity measures, and continuous professional training. The future of accounting lies not in replacing accountants but in transforming them into strategic financial advisors equipped with technological expertise.

Suggestions:

1. Educational institutions should integrate AI and data analytics into accounting curricula.
2. Organizations must invest in cybersecurity infrastructure.
3. Professional bodies should update standards for AI-based auditing.
4. Continuous training programs should be conducted for accounting professionals.
5. Ethical AI frameworks should be established to ensure transparency.

Acknowledgment

I would like to express my sincere gratitude to all those who have supported me in completing this study on "*A Study on Impact of Automation and Artificial Intelligence on Accounting Practices.*"

First and foremost, I am deeply thankful to my guide/mentor for their valuable guidance, constant encouragement, and insightful suggestions throughout the course of this research. Their support has been instrumental in shaping this study.

I would also like to extend my thanks to my professors and the department for providing the necessary academic environment and resources required for this work.

I am grateful to the researchers, authors, and professionals in the field of accounting and artificial intelligence whose work has greatly contributed to the completion of this study.

I would like to thank my friends and classmates for their encouragement, cooperation, and support during the preparation of this project.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

References:

1. Davenport, T. & Kirby, J. (2016). Only Humans Need Apply: Winners and Losers in the Age of Smart Machines.
2. International Federation of Accountants (IFAC) Reports on Digital Transformation.
3. ICAI. (2023). Guidance Note on Technology in Accounting and Auditing.
4. ACCA. (2022). AI and the Future of Accounting.
5. Kokina, J., & Davenport, T. (2017). The Emergence of Artificial Intelligence in Accounting.
6. Sutton, S., Holt, M., & Arnold, V. (2016). The reports of my death are greatly exaggerated—Artificial intelligence research in accounting.
7. PwC Global AI Report (2023).
8. KPMG Digital Finance Transformation Report (2024).