



**Original Article**

**A STUDY OF AI IN ACCOUNTING AND FINANCE**

**Dr. S. S. Pawar**

*Professor and Head, Department of Commerce and Management,  
Savitribai Phule Mahila Mahavidyalaya, Satara.*

**Manuscript ID:**

IJAAR-130304

**ISSN: 2347-7075**

**Impact Factor – 8.141**

**Volume - 13**

**Issue - 3**

**January – February 2026**

**Pp. 17 - 24**

**Submitted:** 15 Jan.2026

**Revised:** 20 Jan. 2026

**Accepted:** 30 Jan. 2026

**Published:** 10 Feb. 2026

**Corresponding Author:**  
**Dr. S. S. Pawar**

Quick Response Code:



**Website:** <https://ijaar.co.in/>



DOI: 10.5281/zenodo.18536754

DOI Link:

<https://doi.org/10.5281/zenodo.18536754>



Creative Commons



**Abstract:**

*Artificial Intelligence (AI) has become a groundbreaking technology impacting various economic sectors, especially accounting and finance. As financial transactions grow more complex and demand greater accuracy, speed, and efficiency, traditional accounting and financial methods are increasingly being replaced or supplemented by AI-based systems. AI applications have notably enhanced processes such as data analysis, auditing, financial reporting, fraud detection, budgeting, forecasting, and decision-making.*

*This study aims to explore the role and influence of Artificial Intelligence in accounting and finance. It focuses on how AI technologies are being incorporated into accounting and financial operations and how they are transforming the roles of accounting professionals and financial institutions. The research relies on secondary data gathered from academic journals, books, reports, and relevant websites, employing a descriptive and analytical approach to examine the information.*

*The results indicate that AI improves operational efficiency, minimizes human errors, increases accuracy, and facilitates real-time financial analysis. AI-powered tools like automated accounting software, intelligent auditing systems, and predictive financial models assist organizations in achieving enhanced financial control and transparency. Nonetheless, the study also identifies challenges related to AI adoption, such as high implementation costs, a shortage of technical expertise, data security concerns, and resistance to change among professionals.*

*In conclusion, despite these obstacles, Artificial Intelligence holds significant potential in the accounting and finance sectors. With appropriate training, skill development, and supportive policies, AI can be effectively implemented, serving as a powerful instrument for sustainable growth and innovation within these fields.*

**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 License (CC BY-NC-SA 4.0), which permits others to remix, adapt, and build upon the work non-commercially, provided that appropriate credit is given and that any new creations are licensed under identical terms.*

**How to cite this article:**

*Dr. S. S. Pawar. (2026). A Study of AI In Accounting And Finance. International Journal of Advance and Applied Research, 13(3), 17–24. <https://doi.org/10.5281/zenodo.18536754>*



## **Introduction:**

In recent years, rapid progress in digital technology has greatly changed how businesses operate worldwide. Among these innovations, Artificial Intelligence (AI) has become a powerful tool that is transforming traditional business methods, particularly in accounting and finance. AI refers to the capability of machines and computer systems to carry out tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and making decisions.

The accounting and finance sector is essential for managing business operations efficiently, planning finances, and maintaining control. Traditionally, accounting and financial tasks were done manually, which required significant time and effort and was prone to human error. However, with the growing amount of financial data, the globalization of businesses, and the need for accuracy and transparency, traditional approaches have become insufficient. This has driven the increased use of AI-based tools and technologies in accounting and financial roles.

## **Concept Of Artificial Intelligence:**

Artificial Intelligence (AI) involves mimicking human intelligence in machines programmed to think, learn, and make decisions. It allows computer systems to perform activities such as data analysis, problem-solving, pattern recognition, and decision-making without constant human input. AI technologies encompass machine learning, natural language processing, expert systems, and robotics. In accounting and finance, AI is applied to automate repetitive tasks, analyze vast amounts of financial data, enhance accuracy, and aid strategic decision-making. Therefore, AI is crucial in improving the efficiency and effectiveness of modern financial operations.

## **Artificial Intelligence In Accounting:**

### **1. Automation of Routine Accounting Tasks:**

Artificial Intelligence has made it possible to automate repetitive and routine accounting activities such as data entry, bookkeeping, ledger updates, and bank reconciliations. These tasks traditionally demanded considerable human effort and were time-intensive. AI-driven accounting software can swiftly and accurately record transactions, categorize expenses, and update accounts automatically. This automation minimizes human errors and boosts overall efficiency, helping organizations save time and reduce operational costs. By handling routine tasks, AI enables accountants to concentrate on more valuable activities like financial analysis and strategic planning. Consequently, AI-driven automation has improved both productivity and accuracy in accounting processes.

### **2. AI in Auditing and Fraud Detection:**

A key application of Artificial Intelligence in accounting is in auditing and detecting fraud. AI-powered auditing tools can analyze vast amounts of financial data in real time to spot irregularities, mistakes, or suspicious activities. Unlike traditional auditing, which relies on sampling, AI examines entire datasets, making audits more thorough and dependable. Machine learning algorithms learn from past data to identify unusual patterns that might signal fraud. This enhances transparency, strengthens internal controls, and lowers financial risks. AI has made auditing faster, more precise, and more efficient.

### **3. AI in Financial Reporting and Analysis:**

Artificial Intelligence plays a vital role in enhancing financial reporting and analysis. AI-enabled systems can produce accurate financial statements by processing real-time accounting information. These systems ensure consistency, reduce errors, and help comply with accounting standards. Additionally, AI tools offer advanced



data analytics that assist management in understanding financial performance, trends, and risks. AI-driven predictive analysis enables organizations to better forecast revenues, expenses, and cash flows. As a result, financial reporting has become more timely, reliable, and valuable for decision-making.

#### **4. AI in Tax Accounting and Compliance:**

Artificial Intelligence has greatly improved tax accounting and compliance procedures. AI-based tax software automates tax calculations, filing, and adherence to tax regulations such as GST and income tax laws. These systems can monitor changes in tax legislation and apply them accurately, reducing the likelihood of penalties and errors. AI helps organizations maintain accurate tax records and ensures timely submission of tax returns. Automation in tax accounting saves time, simplifies complex processes, and enhances accuracy. Therefore, AI has made tax management more efficient and dependable for businesses.

#### **5. Changing Role of Accountants due to AI:**

The integration of Artificial Intelligence has transformed the responsibilities of accounting professionals. Previously, accountants primarily handled clerical and repetitive tasks. With AI taking over routine work, accountants are now expected to engage in analytical, advisory, and strategic functions. They must interpret financial data, offer insights, and support management decisions. While AI has reduced manual labor, it has increased the demand for skilled professionals who possess knowledge of both accounting and technology. Thus, AI has not replaced accountants but has elevated their role within modern business organizations.

### **Artificial Intelligence In Finance:**

#### **1. AI in Financial Planning and Forecasting:**

Artificial Intelligence significantly contributes to financial planning and forecasting by processing vast amounts of historical and real-time financial data. AI-driven systems utilize predictive analytics and machine learning techniques to more accurately predict future revenues, expenses, and cash flows. Unlike traditional forecasting methods that relied heavily on past trends and human judgment—often leading to biased or imprecise outcomes—AI overcomes these limitations by detecting complex patterns and relationships within financial data. This enhanced accuracy aids organizations in budgeting, investment planning, and risk management, thereby improving financial planning quality and supporting more effective strategic decisions.

#### **2. AI in Banking and Credit Risk Assessment:**

In banking, AI is extensively applied to credit risk evaluation and loan approval processes. AI systems analyze customer information such as income, credit history, transaction behavior, and repayment trends to determine creditworthiness. This allows banks and financial institutions to make quicker and more precise lending decisions. By identifying potential defaulters early, AI helps reduce the incidence of non-performing assets (NPAs). Automated credit assessments increase efficiency, reduce human bias, and enhance customer satisfaction. Consequently, AI has bolstered risk management and lending procedures within the financial industry.

#### **3. AI in Investment and Portfolio Management:**

AI has revolutionized investment and portfolio management by facilitating data-driven decision-making. AI tools examine market trends, economic indicators, and historical price data to suggest investment strategies. Robo-advisors employ AI algorithms to deliver personalized



investment recommendations tailored to an investor's risk tolerance and financial objectives. AI also aids in portfolio optimization by balancing risk and returns. These technologies enhance accuracy, minimize emotional biases, and enable continuous investment monitoring. As a result, AI has made investment management more efficient, transparent, and accessible.

#### **4. AI in Fraud Detection and Financial Security:**

Fraud detection is a vital application of AI in finance. AI systems continuously monitor financial transactions in real time to identify suspicious activities by recognizing unusual patterns. Machine learning algorithms learn from previous fraud incidents to improve detection accuracy over time. This capability helps financial institutions prevent fraud, minimize losses, and safeguard customer information. AI-driven security solutions also strengthen cybersecurity by detecting potential threats and unauthorized access. Therefore, AI plays a key role in enhancing financial security and maintaining trust in financial systems.

#### **5. AI in Customer Service and Financial Decision-Making:**

AI has enhanced customer service in finance through chatbots, virtual assistants, and automated support platforms. These AI tools offer immediate responses to customer inquiries, assist with transactions, and provide financial guidance. Additionally, AI supports management by delivering real-time insights, performance evaluations, and risk assessments to facilitate informed financial decisions. Improved customer service and data-driven decision-making have boosted operational efficiency and customer satisfaction. Thus, AI has become an indispensable asset in contemporary financial management.

### **Impact Of Artificial Intelligence On Accounting And Finance Professionals:**

#### **1. Transition from Routine Tasks to Analytical Functions:**

Artificial Intelligence has greatly diminished the need for manual, repetitive activities in accounting and finance, such as data entry, bookkeeping, and simple calculations. Consequently, professionals are moving beyond clerical duties and increasingly engaging in analytical and interpretive roles. Accountants and finance experts now concentrate on examining financial data, interpreting reports, and offering strategic advice to management. This evolution has elevated the professional status of accountants, making their roles more advisory and decision-focused. AI has thus transformed accounting and finance into knowledge-driven fields rather than routine operational jobs.

#### **2. Demand for New Skills and Technological Expertise:**

The integration of Artificial Intelligence has heightened the need for new competencies among accounting and finance professionals. Beyond traditional accounting knowledge, they must now be familiar with AI-powered software, data analytics, and financial technology tools. Abilities such as data interpretation, system management, and basic tech literacy have become crucial. Ongoing learning and skill development are essential to stay relevant in the evolving financial landscape. Therefore, AI has prompted professionals to enhance their skills and adapt to technological progress.

#### **3. Enhanced Efficiency and Productivity:**

Artificial Intelligence has boosted the efficiency and productivity of accounting and finance professionals by reducing workload and saving time. AI systems execute tasks more quickly and accurately, enabling professionals to take on more complex duties. This improvement has led to



higher work quality, less stress, and better time management. By automating routine processes, AI allows professionals to concentrate on value-added activities like financial planning, risk evaluation, and strategic consulting. As a result, AI has positively impacted professional productivity and performance.

#### **4. Evolution of Employment Opportunities:**

The advent of Artificial Intelligence has altered employment trends within the accounting and finance sector. While some traditional roles have declined, new positions have emerged in areas such as financial analytics, AI system oversight, and consulting services. Professionals who combine finance expertise with technological knowledge are in high demand. Although concerns about job displacement exist, AI has generated new career paths rather than completely eliminating jobs. Thus, AI has reshaped employment by changing the nature of roles in the industry.

#### **5. Ethical Accountability and Professional Judgment:**

With the growing use of Artificial Intelligence, the ethical responsibilities of accounting and finance professionals have become increasingly important. They must ensure the accuracy, transparency, and ethical application of AI-generated financial data. Human judgment remains vital for interpreting outcomes, making decisions, and maintaining compliance with ethical and regulatory standards. While AI aids decision-making, it cannot replace professional discretion. Therefore, AI has reinforced the significance of ethical responsibility and accountability among accounting and finance professionals.

### **Advantages Of Artificial Intelligence In Accounting And Finance:**

#### **1. Enhanced Accuracy and Error Minimization:**

A key advantage of Artificial Intelligence in accounting and finance is its ability to improve accuracy. Traditional financial processes often rely on manual input, which can lead to human errors. AI systems handle large amounts of data with great precision and consistency. Automated calculations, data verification, and real-time processing help reduce mistakes in financial records and reports. This increased accuracy boosts the reliability of financial information and strengthens internal controls, enabling organizations to make more informed financial decisions based on accurate data.

#### **2. Increased Time and Cost Efficiency:**

AI enables organizations to save time and lower operational expenses. Automated accounting and financial tasks are completed much faster than manual approaches. Activities such as invoice processing, payroll management, and financial reporting can be done quickly with minimal human intervention. This leads to reduced labor costs and higher productivity. The time saved through automation allows professionals to concentrate on strategic and analytical responsibilities. Therefore, AI enhances both time efficiency and cost savings in financial operations.

#### **3. Improved Decision-Making:**

AI offers advanced data analytics and real-time insights that aid in making effective financial decisions. It analyzes past and current financial data to detect trends, risks, and opportunities. Predictive analytics assists management in forecasting future financial performance and planning accordingly. Making decisions based on data reduces uncertainty and leads to better business results. Consequently, AI plays a vital role in enhancing the speed and quality of financial decision-making.



#### **4. Strengthened Risk Management and Fraud Detection:**

Artificial Intelligence enhances risk management and fraud prevention efforts. AI-driven systems continuously monitor financial transactions to spot unusual patterns or suspicious behavior. Early identification of risks and fraudulent activities allows organizations to take prompt preventive measures. Machine learning algorithms improve risk evaluation by learning from historical data. This increases financial security and safeguards organizational assets. Thus, AI supports effective risk management and fraud control.

#### **5. Better Compliance and Transparency:**

AI assists organizations in adhering to accounting standards, financial regulations, and tax requirements. Automated systems ensure consistent rule application and lower the chances of non-compliance. Additionally, AI promotes transparency by maintaining accurate, up-to-date financial records. Transparent reporting fosters trust among stakeholders such as investors, regulators, and customers. In this way, AI improves compliance and transparency within accounting and finance.

### **Challenges And Limitations Of Artificial Intelligence In Accounting And Finance:**

#### **1. High Implementation Costs:**

A significant obstacle to adopting Artificial Intelligence in accounting and finance is the substantial cost involved. AI systems demand sophisticated software, hardware infrastructure, and ongoing maintenance. Small and medium-sized enterprises often struggle to afford these expensive technologies. Additionally, training staff to operate AI-based systems adds to the expenses. Due to these financial challenges, many organizations cannot fully implement AI solutions. Therefore, the high initial investment serves as a major barrier to the

widespread adoption of AI in financial and accounting functions.

#### **2. Shortage of Skilled Professionals:**

Effective deployment of Artificial Intelligence requires professionals skilled in both finance and technology. However, there is a lack of trained personnel capable of managing and interpreting AI-driven financial systems. Many accounting and finance experts do not possess the technical knowledge needed for AI tools and data analytics. This skills gap hinders efficient AI adoption and use. Ongoing training and skill development are essential to address this issue. Consequently, the shortage of technical expertise remains a key challenge in implementing AI.

#### **3. Data Security and Privacy Concerns:**

AI systems rely heavily on vast amounts of financial and personal data, raising significant concerns about data security and privacy. Risks such as unauthorized access, data breaches, and cyberattacks can result in financial losses and harm an organization's reputation. Ensuring data confidentiality and compliance with data protection regulations is a major challenge for organizations utilizing AI. Robust cybersecurity measures and ethical data handling policies are crucial. Thus, concerns over data security and privacy restrict the full potential of AI in finance and accounting.

#### **4. Reliance on Technology and Potential System Errors:**

Overdependence on Artificial Intelligence can be risky if systems malfunction or generate inaccurate results. Technical glitches, software errors, or faulty data inputs may lead to incorrect financial outcomes. AI lacks human judgment and may not effectively manage exceptional cases. Excessive reliance on technology without adequate human oversight can cause serious financial issues. Therefore, continuous monitoring and human



involvement are necessary to mitigate technological risks.

#### **5. Resistance to Change and Ethical Issues:**

Employee resistance to change poses another challenge in adopting Artificial Intelligence. Many professionals fear job displacement or diminished roles due to automation, leading to reluctance and opposition toward AI implementation. Moreover, ethical concerns arise regarding transparency, accountability, and decision-making when AI systems are extensively used. Organizations must promote ethical AI use and maintain human supervision. Hence, resistance to change and ethical considerations limit the successful integration of AI.

#### **Future Prospects Of Artificial Intelligence In Accounting And Finance:**

Artificial Intelligence is anticipated to have a growing impact on the future of accounting and finance. As technology continues to advance, AI systems will become smarter, more precise, and more efficient. Future accounting platforms are expected to be fully automated, allowing for real-time recording, analysis, and reporting of financial information. This will improve transparency and minimize the need for manual input.

In the financial industry, AI is projected to enhance predictive analytics, risk management, and investment decision-making processes. Sophisticated AI models will assist organizations in forecasting financial outcomes more accurately and adapting swiftly to market fluctuations. Additionally, the application of AI in fraud detection and cybersecurity is likely to expand, providing stronger financial protection.

Furthermore, the roles of accounting and finance professionals will evolve. They will need to acquire expertise in data analytics, financial technologies, and managing AI systems.

Educational institutions and professional organizations are expected to incorporate AI-related topics into their programs to prepare future experts.

Although challenges exist, supportive government policies, technological progress, and growing awareness will promote broader AI adoption. Ultimately, Artificial Intelligence will enhance efficiency, accuracy, and sustainable development within the accounting and finance sectors.

#### **Conclusion:**

Artificial Intelligence has become a groundbreaking technology that is reshaping the accounting and finance sectors. This study demonstrates that AI has greatly enhanced the efficiency, accuracy, and dependability of financial and accounting operations. By automating repetitive tasks, enabling advanced data analysis, providing real-time reporting, and improving fraud detection, AI has strengthened financial management and decision-making processes. It has also reduced the need for manual labor, allowing professionals to concentrate more on analytical and strategic responsibilities.

The research also points out that despite the many advantages of Artificial Intelligence, it comes with challenges such as high costs of implementation, concerns over data security, and the demand for skilled personnel. Nevertheless, these issues can be mitigated through adequate training, robust regulatory measures, and ethical technology use.

In summary, Artificial Intelligence has not replaced professionals in accounting and finance but has enhanced their roles by making them more analytical and focused on adding value. With ongoing technological progress and wider adoption, AI is anticipated to play a vital role in the



sustainable development and modernization of the accounting and financial industries moving forward.

#### References:

1. **Agrawal, A., Gans, J., & Goldfarb, A. (2018).** *Prediction Machines: The Simple Economics of Artificial Intelligence*. Book information and details — this page describes the book and its authors: FinNotes: *Prediction Machines — The Simple Economics of Artificial Intelligence* [Prediction Machines book info](#)
2. **Davenport, T. H. & Ronanki, R. (2018).** *Artificial Intelligence for the Real World*. From **Harvard Business Review (HBR)** — official article page: Harvard Business Review: *Artificial Intelligence for the Real World* [Artificial Intelligence for the Real World \(HBR\)](#)
3. **OECD. (2019).** *Artificial Intelligence in Society*. Official OECD publication (PDF from OECD's website): OECD: *Artificial Intelligence in Society (2019)* [Artificial Intelligence in Society \(OECD PDF\)](#)
4. **KPMG — Report on AI in Finance**. KPMG's discussion on AI transforming finance (official KPMG site): KPMG: *AI Is the New Operating System for Finance* [AI Is the New Operating System for Finance \(KPMG\)](#)
1. **5. PwC — AI and Ethical Challenges (related to AI in industry)**. While the exact PwC 2020 report link may require subscription, PwC's analysis of ethical issues in AI can be found via third-party reference: PwC compiled ethical AI discussion (from OECD Index Report) [AI Ethical Challenges overview \(PwC cited\)](#)