



## AI IMPLEMENTATION IN ACCOUNTING AND FINANCE SECTOR - MERITS AND CHALLENGES

**Dr. Pradeep G\***      **Mrs. Vidya U Jambagi\*\***

*\*Professor, PG Dept. of Commerce, Jain College Autonomous, V V Puram, Bangalore.*

*\*\*Assistant Professor, UG Dept. of Commerce, SSMRV College, Jayanagar 4<sup>th</sup> T Block , Bangalore.*

### **Abstract**

*Artificial intelligence (AI) is the intelligence of software or computers as opposed to the intelligence of living entities, primarily humans. It is a subfield of computer science dedicated to the development and study of intelligent machines. One could refer to these devices as artificial intelligence (AI). The government, business, and academic sectors all make extensive use of artificial intelligence. Google Search and other sophisticated web search engines, YouTube, Amazon, and Netflix's recommendation systems, and human speech-based interaction. Google Assistant, Siri, and Alexa, self-driving cars like Waymo, generative and creative tools like ChatGPT and AI art, and superhuman play and analysis in strategy games like chess and Go are a few high-profile applications. Artificial intelligence has had a significant impact on the accounting and finance industries. In actuality, AI-enabled finance and accounting systems are the way for companies to stay effective competitors in a market that is getting more and more competitive since they save time and provide deep insights. Also there are many challenges that can cause great hurdle in effective implementation of AI in accounting and finance field and unless these challenges are tackled in an efficient manner, implementation of AI in accounting and finance is close to impossible.*

**Key Words:** *Artificial Intelligence, Accounting and Finance Sector, Challenges and Merits.*

### **Introduction**

There are instances when the terminologies, accounting and finance are used interchangeably. Although they both deal with the administration and management of an organization's assets, they differ greatly in their scope and concentration. When evaluating and making plans for your group's or division's financial health, it is essential to have a good knowledge of both disciplines. Some of the subgroups of finance that can be used to concentrate on the specific parties involved are public, corporate, and personal finance. Each category of finance contains distinct variations that correlate to the different laws, rules, and concerns of different demographics, even if these groupings typically comprise a similar spectrum of operations. Accounting frequently include keeping track of transactions, compiling financial information, producing reports, and summarising and evaluating performance. Every industry is seeing a change in the way people work due to new technology. It is also altering the expectations that customers have of businesses with which they interact. This also applies to accounting. Accountants can become more productive and efficient with the use of artificial intelligence. Task completion times should be slashed by 80–90% so that human accountants can concentrate more on giving advice to clients. Because there will be fewer errors, integrating artificial intelligence into accounting operations will help improve quality.

### **Review of literatures**

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### Relevance of the study

Robotic process automation (RPA) allows machines or artificial intelligence workers to do repetitive, time-consuming operations like document processing and analysis, including accounting. Accountants' time that was previously devoted to these tasks can now be used for more strategic and consultative work following the implementation of RPA. RPA has developed into more sophisticated intelligent automation (IA). AI can frequently deliver real-time status updates on financial concerns since it can evaluate documents using computer vision and natural language processing more quickly than ever before. This enables the low-cost production of daily reports. Businesses can use this information to take the initiative and alter course when data indicates unfavourable trends.

### Objectives of the Study

1. To identify the roll of AI in Accounting and finance
2. To understand the benefits of implementing AI in Accounting and Finance
3. to understand the challenges in the implementation of AI in Accounting and finance field



### **Role of AI in Accounting and Finance**

AI's Place in Finance In the financial industry, artificial intelligence (AI) refers to the use of technology, such as machine learning (ML), to enhance the analysis, management, investing, and money-protection procedures of financial institutions by mimicking human intelligence and decision-making. Artificial intelligence (AI) in finance is transforming the entire industry and changing where and how investments are made by streamlining traditional banking processes and exposing deeper insights from generated data. Additionally, AI is changing how consumers interact with companies by facilitating faster, more seamless procedures like rapid credit approvals, improved cyber security, and fraud protection. Artificial intelligence (AI) has a significant impact on how financial organisations manage risk, including security, fraud, regulatory compliance, anti-money laundering (AML), and know-your-customer (KYC) laws. AI can be included into the infrastructure of banks, financial organisations, and insurance companies.

### **Role of AI in Financial Institutions**

Businesses can use AI to speed up and automate time-consuming, manually performed tasks like market research. Investors may monitor the progress of their investments and evaluate risk by identifying patterns thanks to AI's rapid analysis of large data sets. Since personal data may be gathered and used to determine rates and coverage, evaluation is also relevant to insurance. Cyber security can benefit from artificial intelligence, especially when it comes to identifying fraudulent transactions. by closely monitoring customer behaviour and contrasting it with historical data

### **Role of AI in Accounting**

By automating almost all accounting tasks, such as payroll, taxes, banking, and audits, artificial intelligence has completely transformed the accounting industry. The way business is run has significantly changed as a result of this. • AI boosts efficiency and production quality while simultaneously improving transparency and auditability. •Artificial intelligence offers a plethora of opportunities and frees up the finance department's traditional tedious tasks to investigate new business growth potential. • AI facilitates accurate financial statement forecasting. Experts in finance can utilise machine learning (ML) to predict future trends by utilising historical records and data.

### **Benefits of AI in Accounting and Finance**

By automating almost all accounting tasks, such as payroll, taxes, banking, and audits, artificial intelligence has completely transformed the accounting industry. The way business is run has significantly changed as a result of this.

1. AI boosts efficiency and production quality while simultaneously improving transparency and audit ability.
2. Artificial intelligence offers a plethora of opportunities and frees up the finance department's traditional tedious tasks to investigate new business growth potential.
3. AI facilitates accurate financial statement forecasting. Experts in finance can utilise machine learning (ML) to predict future trends by utilising historical records and data. This skill gives businesses a better understanding of their financial status by enabling them to take preventive action when needed. Make Money with Predictive Analytics Sophisticated computers can make highly accurate predictions about future patterns based on historical data.
4. By using AI-driven data to make well-informed decisions about their long-term strategies and resource allocation, organisations can gain a competitive edge. By actively utilising improved insights from past data, executives may stay one step ahead of their competitors. Acquiring New Funds Advanced machine learning algorithms have opened up new funding sources for



companies through automated trading platforms, allowing them to buy and sell assets remotely without human involvement.

Thanks to automated trading platforms, businesses may now maximise their productivity and profit margins, providing them a competitive advantage in the market. Because of the potential advantages that have already started to transform a number of industries, including healthcare, retail, banking, and finance, many experts believe that this technology will continue to play an even bigger role in the future.

**Challenges of implementation of AI in accounting and Finance:** There are various key challenges in implementing AI in accounting and finance sector and they are

**Issue of Data Security and Privacy:** AI necessitates large databases, which increases the danger of breaches and makes it challenging to comply with changing standards.

**Issue of High Costs and Implementation:** Smaller businesses may find it prohibitive to implement AI since it requires a large investment in infrastructure, technology, and training.

**Issue of Workforce Re-Skilling:** Training employees to move from traditional tasks to managing AI-driven systems is a significant challenge.

**Issue of Integration with Legacy Systems:** It is difficult to update antiquated, well-established, or legacy financial systems to work with modern AI technology.

**Issue of Data Quality and Bias:** Since AI models are only as good as the data they are trained on, misleading financial reporting may result from biased or low-quality data.

**Issue of Lack of Regulatory Framework Clarity:** The rapid development of AI tools frequently surpasses current financial rules, posing dangers to compliance and the law.

**Findings and Conclusion:** On consideration of the relevant points on the merits of implementing the AI in accounting and finance sector coupled with its challenges as well, it is very apparent that AI boosts transparency in accounting sector and it is believed that it can minimise the fraudulent activities in the application areas of accounting. AI implementation in accounting is believed to boost the transparency in accounting and improves the audit ability of any organization. In finance AI is believed to play a pivotal role in managing the investment of the investors and tries to uphold utmost security of the investments and is believed to play a key role in decision making areas of finance such as returns, NAV calculations, Dividend disbursements, choosing or un choosing an investment or portfolio and many more. Upon scrutiny of the challenges that would be faced while implementing AI in accounting and finance sector it is found that there are quite a few pitfalls such as threats in connection with data security and upkeep of privacy, work force re skilling etc. Adding to that it is also found that implementation of AI in accounting and finance field would come at a huge cost which may turn out to be unaffordable to the ordinary companies. From the above findings it can be concluded that even though implantation of AI in accounting and finance sector has many merits, but there are many challenges as well, which an organization should overcome, only then the implementation of AI in accounting and finance sector may be fruitful.



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