



# Artificial Intelligence in Accounting and Finance: A Transformative Study

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**Abstract:** Artificial Intelligence (AI) is changing the fields of accounting and finance by mechanizing processes, increasing accuracy, and encouraging appropriate decision-making. In accounting, AI technologies like Machine learning (ML), Natural Language Processing (NLP), and Robotic Process Automation (RPA) are used to modernize tasks such as Recording Accounts, prime entry of Book-keeping, Invoice processing, Audit rules and procedures, and fraud detection. These techniques are minimizing manual errors, enhance efficiency and effectiveness, and enables auditors to concentrate extra on examination and consultative capacity.

In finance, AI plays an important role in risk estimation, credit scoring, programmatic trading, investment management, and concurrent fraud mitigation. AI systems can analyze vast volumes of financial data to identify arrangement and trends that inform investment tactics and financial estimations. The combination of AI also improves governing obedience and reporting by ensuring transactions stick to guidelines and by automatically flagging suspicious activities. Despite its advantages, AI in accounting and finance also poses difficulties, such as data protection concerns, the need for professional development, and ethical problems in decision-making. Overall, AI is transforming accounting and finance, making them more forward thinking, data-driven, and tactical.

**Keywords:** Artificial Intelligent, fields, Accounting and finance, mechanizing, robotic transforming.

## Introduction

Artificial Intelligence (AI) is remodeling the fields of accounting and finance to carry in automation, speed, accuracy and sophisticated data examine potentialities. AI refers to the simulation of human intelligence by machines, especially computer systems, which can learn from data, identify patterns, and make decisions with minimal human interference.

Artificial Intelligence (AI) is changing the fields of accounting and finance by mechanizing processes, increasing accuracy, and encouraging appropriate decision-making. In accounting, AI technologies like Machine learning (ML), Natural Language Processing (NLP), and Robotic Process Automation (RPA) are used to modernize tasks such as Recording Accounts, prime entry of Bookkeeping, Invoice processing, Audit rules and procedures, and fraud detection. These techniques are minimizing manual errors, enhance efficiency and effectiveness, and enables auditors to concentrate extra on examination and consultative capacity.

In accounting, AI is being used for targets includes invoice processing, cost management, auditing and scrutinizing, and fraud detection. It minimizes manual work, enhances accuracy, and allows accountants to focus on more tactic roles. In the finance sector, AI is applied in areas like risk appraisal, programmatic trading, portfolio management, and customer support, helping organizations make rapid and more knowledgeable financial decisions. The combination of AI not only increases functional efficiency but also provides real-time experiences and estimated analytics. As businesses deal with increasing volumes of financial data, AI becomes a valuable tool for improving accuracy, reality, compliance, and tactical planning. The impact of AI in accounting and finance marks a significant step towards a more capable evidence based economic future.

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## **Review of Literature**

1. Chukwuani & Egidi (2020) examined the impact of artificial intelligence on the accounting industry. In doing so they showed the level of advancement taking place in the accounting industry in automating the accounting process. Finally, they outlined the accountants place in the modern automation and how the accountants of the 21<sup>st</sup> century can adapt to the widespread automation in the industry.

2. Lee & Tajudeen (2020) found out that AI-adoption is not exclusive to the large organizations. They also observed that organizations were using AI-based accounting software to store invoice-images and automate the information capturing process altogether.

3. Davenport & Ronanki (2018), in their Harvard Business Review story, suggests that organizations should focus on AI in terms of business capabilities rather than technological skills. In general, AI can help businesses meet three key objectives: automating business processes, getting insight through data analysis, and connecting with consumers and workers.

4. Huang (2018) looked into the application of AI in taxation. In order to present the case, the author listed evidences of empirical applications of AI in taxation in China.

5. Chukwudi et al. (2018), through a survey-based descriptive research, presented the impact of AI on accounting functions. In this study, it was seen that the application of artificial intelligence positively influenced the performance of the accounting functions of accounting firms in South East Nigeria. In a study conducted on the Malaysian organizations using various AI-based accounting software.

## **Need of the study**

The need for this study arises from the essential role that Artificial Intelligent (AI) plays in automating repetitive task in accounting and finance. These tasks include data entry, transaction categorization, fraud detection and report preparation. By automating such tasks, AI enables professionals to focus on higher- level activities such as decision-making and forward planning.

## **Importance of the study**

The importance of this study is that how Artificial intelligence (AI) is used in accounting and finance and how the technology is day by day transforming accounting and financial practices. It enhances the swift of technology, efficiency of accounting processes by mechanization daily tasks such as maintain of books of accounts, financial statements, auditing and financial reporting. It permits for real-time data analysis which is supports speed and more informed decision making

## **Scope of the study**

The scope of this study represents Artificial intelligence (AI) in accounting and finance is vast and continuously diversified advanced technology. This study explores AI is re-shaping accounting and financial operations. This study confined within the two districts of Telangana which is Warangal and Hyderabad.

## **Objectives of the study**

1. To understand the level of consciousness of AI among Accounting and Finance professionals and students.
2. To know and observe the present usage and applications of AI tools in accounting and financial practices.
3. An explore the impact of AI on job roles, decision-making, and operational efficiency.
4. To assess the benefits and challenges faced in implementing AI in accounting and finance sectors.

## **Research Methodology**

The only two districts of Warangal and Hyderabad, with a range of various professional factors, are included in this study.

## **Data Collection**

Primary data was collected through structure questionnaire with Google forms and with sample size 53. The secondary data was procured from text books, periodical, news papers and other published data and internet.

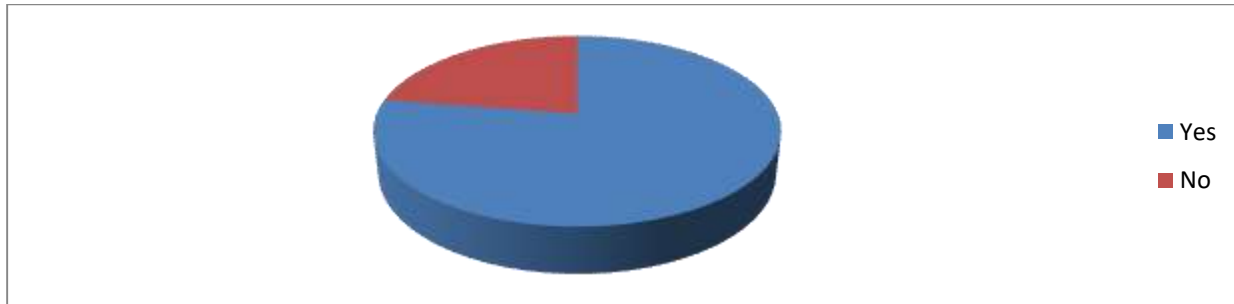
### Limitations of the study

This study is restricted and confined for only two districts of Telangana that is Warangal and Hyderabad 53 responses.

### Data Analysis and Interpretation

#### ➤ awareness of artificial intelligence (ai) in accounting and finance

| Awareness of Artificial Intelligence (AI) in accounting and finance? |      |
|----------------------------------------------------------------------|------|
| Yes                                                                  | 77.4 |
| No                                                                   | 22.6 |
| Total                                                                | 100  |

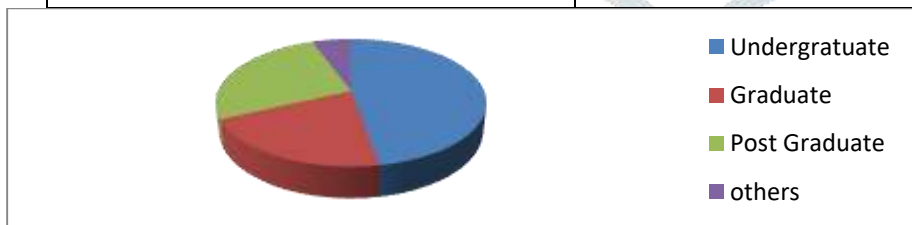


### Interpretation

The above data represents that a significant portion of respondents of (77.4%) are aware about Artificial Intelligent (AI) in Accounting and Finance. As per the responses remaining 22.6% of respondents have no awareness about AI and technology. But still we require to more awareness.

#### ➤ education qualifications of respondents

| Education qualification of Respondents |         |
|----------------------------------------|---------|
| Undergraduate                          | 47.20%  |
| Graduate                               | 20.80%  |
| Post Graduate                          | 26.40%  |
| others                                 | 5.60%   |
| Total                                  | 100.00% |



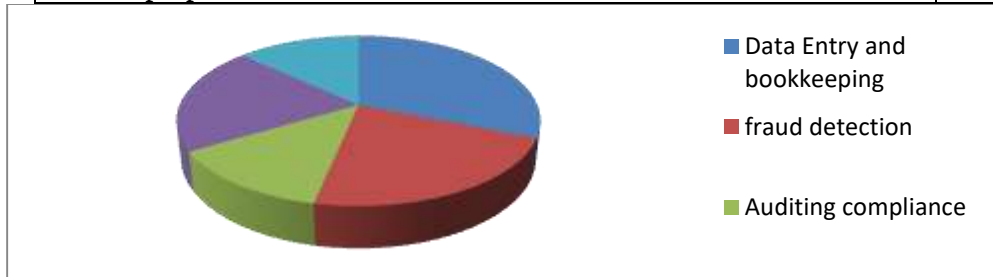
### Interpretation

The above data depicts that the major group of respondents 47.2%, it shows that nearly half the participants still pursuing or finished under graduate studies. Post graduates are 26.4% and graduates accounts of 20.8%. Overall the sample leans towards a younger and academically active population.

#### ➤ which tasks ai can help with in accounting/finance

| Tasks do you think AI can help with in accounting/finance | Respondents | Percentage |
|-----------------------------------------------------------|-------------|------------|
| Data Entry and bookkeeping                                | 38          | 71.7       |
| Fraud detection                                           | 27          | 50.9       |

|                       |    |      |
|-----------------------|----|------|
| Auditing compliance   | 16 | 30.2 |
| Financial forecasting | 25 | 47.2 |
| Tax preparation       | 16 | 30.2 |

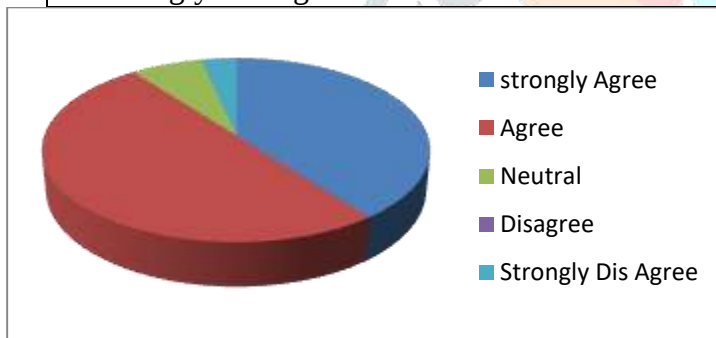


### Interpretation

The data represents the fields in accounting and finance where respondents trust AI can provide important assistance. The majority 71.7 % respondents are using AI in data entry and bookkeeping are the major area in accounting. It is also considered the fraud detection with 50.9% and also increasing security and accuracy and 47.2% respondents feel can support for financial forecasting, it showing its significant in decision making and proper planning. Other in auditing and tax planning with 30.2%.

### ➤ do you think ai improves the accuracy of financial work?

| Do you think AI improves the accuracy of financial work? | Respondent s | percent age |
|----------------------------------------------------------|--------------|-------------|
| Agree                                                    | 29           | 54.7        |
| strongly Agree                                           | 23           | 43.4        |
| Neutral                                                  | 4            | 7.5         |
| Disagree                                                 | 0            | 0           |
| Strongly Dis Agree                                       | 2            | 3.8         |

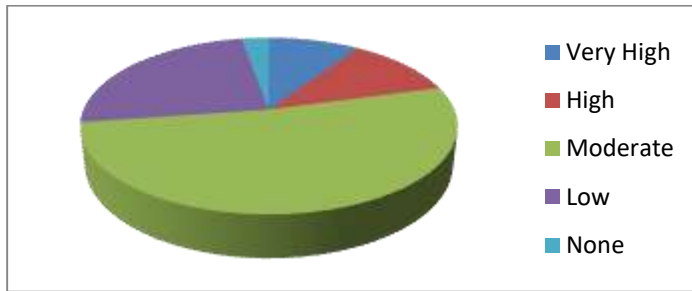


### Interpretation

The data represents that AI increase the accuracy and financial work with 54.7% major portion and 43.4% strongly agree. The small portion was Neutral. This depicts that the high level of confidence among the respondents regarding AI's role in improving accuracy in financial tasks, its shows the positive acceptance and reliability in financial sector.

### ➤ current level of knowledge about ai in accounting and finance

| Current level of knowledge about AI in accounting and finance. |            |
|----------------------------------------------------------------|------------|
| Respondent                                                     | percentage |
| Very High                                                      | 9.4        |
| High                                                           | 11.3       |
| Moderate                                                       | 52         |
| Low                                                            | 24.5       |
| None                                                           | 2.8        |
| Total                                                          | 100        |

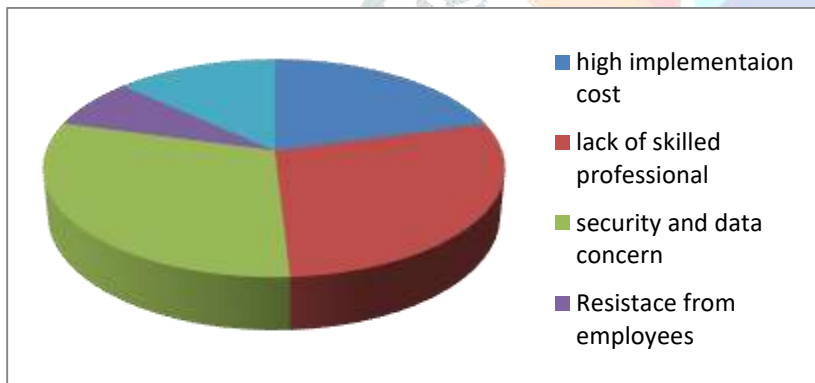


### Interpretation

The data represents major share is Moderate rate 52% their knowledge of AI in Accounting and finance. The fair level of awareness but not in deep expertise and considerable portion is low percentage that is 25.5% and 2.8% respondents having nil knowledge in AI. The small amount of knowledge is high 11.3% and very high 9.4%.

### ➤ challenges faced by organizations while adopting ai in accounting and finance

| What challenges do you think organizations face in adopting AI in finance? |            |
|----------------------------------------------------------------------------|------------|
| Respondents                                                                | percentage |
| High implementation cost                                                   | 20.8       |
| Lack of skilled professional                                               | 28.3       |
| Security and data concern                                                  | 30.2       |
| Resistance from employees                                                  | 7.5        |
| Lack of Awareness                                                          | 13.2       |
| Total                                                                      | 100        |



### Interpretation

It shows that organizations face many challenges in taking AI in finance with security and data concerns 30.2% are appearing as most important barriers, it reflecting worries about privacy, cyber threats and security handling of financial data. The lack of skilled professionals 28.3% and another barrier is gap in expertise in effectively implement AI results. High execution cost 20.8%, lack of awareness 13.2% and resistance from employees 7.5% are relatively smaller but still organizations facing problems and also include other barriers.

### Conclusion

Artificial intelligence (AI) is reshaping the landscape of accounting and finance by increasing capabilities, reliability, accuracy and decision making. Through robotization of regular tasks such as data entry, book-keeping, tax preparation, payments of bills and receivables and auditing, AI allows professionals to focus more on deliberate and systematic roles. It also reinforces fraud identification, risk analysis and management and financial forecasting by providing real time inputs and predictive analytics. Nevertheless, its successful adoption requires overcoming problems like high implementation costs, absence of skilled professional, data

security concerns. Overall, AI clutch life changing possible to make accounting and finance more truthful, reliable, transparent and future ready, provided organizations invest in the right technology and improvement.

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