



Journal Homepage: - [www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/18361

DOI URL: <http://dx.doi.org/10.21474/IJAR01/18361>



### RESEARCH ARTICLE

#### INTEGRATING AI INTO THE FUTURE OF ACCOUNTANCY

Anuya Sarawat

#### Manuscript Info

##### Manuscript History

Received: 05 January 2024

Final Accepted: 09 February 2024

Published: March 2024

#### Abstract

Accountancy is the practice of recording, classifying and reporting on business transactions. It provides feedback's to the management regarding the financial results and status of an organization. Accountancy revolves around recording and analyzing financial transactions to provide accurate financial position and performance of an entity. Accountancy is invaluable but it is not immune to the tide of advancements in artificial intelligence. Artificial intelligence can help reshape accountancy for the betterment of accountants and the business. In accountancy some tasks being repetitive and time consuming often divert accountants from high value activities. Artificial intelligence can save accountants from such routine work and help them enhance their skills. This Research paper will talk about how artificial intelligence can revolutionize accountancy.

*Copy Right, IJAR, 2024.. All rights reserved.*

#### Introduction:-

Accountancy is the practice of recording, classifying and reporting on business transactions. It provides feedback's to the management regarding the financial results and status of an organization. Accountancy revolves around recording and analyzing financial transactions to provide accurate financial position and performance of an entity. Accountancy is invaluable but it is not immune to the tide of advancements in artificial intelligence. Artificial intelligence can help reshape accountancy for the betterment of accountants and the business. In accountancy some tasks being repetitive and time consuming often divert accountants from high value activities. Artificial intelligence can save accountants from such routine work and help them enhance their skills. This Research paper will talk about how artificial intelligence can revolutionize accountancy.

#### AI In Accountancy

AI will play a huge role in starting a new era of efficiency, accuracy and strategic value in this diverse field. Artificial intelligence will not fully replace accountancy but it will provide a huge helping hand in the process. It will work alongside accountants not against them by eliminating human errors and limitations. It can automate repetitive, time-consuming tasks which will help accountants focus more on advisory, analysis and further increasing their knowledge. By helping in decision making, auditing and identifying patterns in large data. AI will help provide more precise and reliable accounting information to the management which will Overall help in improving the position of the business. Ai provides real-time financial insights, cost reduction and forecasting. As accountants embrace AI, it will be an ally in the world of finance, not only enhancing efficiency but also Providing more strategic financial insights.

**Corresponding Author:- Anuya Sarawat**

## Applications of AI



### Benefits of AI

The introduction of AI in accountancy brings many challenges but it also provides numerous benefits which will help revolutionize this field. The major benefits are as follows:

#### Automation:

AI will help automate routine tasks. AI can automate routine tasks by using various technologies and techniques such as:

1. Machine learning: it can help automate routine tasks by utilizing algorithms to analyze large data, patterns and make predictions. It can help in reducing manual efforts in processes such as data entry, classification of transactions and rectification of errors.
2. Robotic process automation (RPA): it's a software which automates multiple processes by mimicking human interactions. This includes tasks/processes such as reconciliation, data entry and report generation. These bots can work 24/7 and can be integrate with existing systems, enhancing efficiency in the overall process.
3. Chatbots: AI-powered chatbots can handle routine and repetitive tasks in various domains. For example, in customer service, chatbots can reduce the workload on humans by answering frequently asked questions, providing information and guide the users.

These technologies help in freeing Human Resources for tasks such which require creativity, critical thinking and emotional intelligence.

Fraud detections: AI can help in detecting frauds that take place in the business. It can be used to detect fraudulent activities by:

1. Pattern recognition: It plays a crucial role in detecting frauds by identifying irregularities from established patterns, helping in finding potential fraudulent activities.
2. Anomaly detection: It establishes a normal behavior and then detects unusual patterns by real-time monitoring. It has a more dynamic approach, making it a valuable tool in detecting frauds.

These technologies and techniques help safeguard the business and individuals by identifying and preventing fraudulent activities.

#### Data Analysis:

The most impressive advantage of AI is how it can analyze large amounts of data. It can be used to analyze data by:

- Natural language processing(NLP): NLP is a powerful branch of AI which deeply helps in analyzing data. It does so by enabling computers to understand and process human language. It helps in extraction of valuable information from text data. It aims in summarizing lengthy documents and powering question-answer System for interactive data exploration.
- Automated Machine learning(AutoML): it simplifies machine learning model building process, making it more accessible to individuals to extract data.

These technologies help in uncovering insights, predicting trends and enhancing efficiency of the business.

**Challenges posed by AI**

Introduction of AI in accountancy promises significant benefits but it also provides us with ethical, legal as well as societal challenges.

**Ethical challenges :**

AI will bring a spectrum of ethical challenges. The biggest challenge is the potential for AI to inherit biases present in historical data which will effect the decision-making process, leading to unfair financial decisions. It will also pose the risk of job displacement to accountants effecting the work force. Maintaining transparency, accountability and fairness is crucial to uphold ethical standards.

**Legal challenges:**

AI will bring a spectrum of legal challenges. Given the complexity of financial material, occasionally incorrect decisions can be made by AI. AI deals with sensitive financial information, it can give rise to legal problems related to data privacy. Ensuring legal adherence will help uphold these challenges.

**Societal challenges:**

AI will also bring a spectrum of societal challenges. It poses a challenge regarding job displacement to accountants as AI will automate routine tasks. Moreover, there is a risk that AI will not be accessible to all individuals and businesses equally. Managing these challenges properly is vital to ensure that AI benefits the society as a whole.

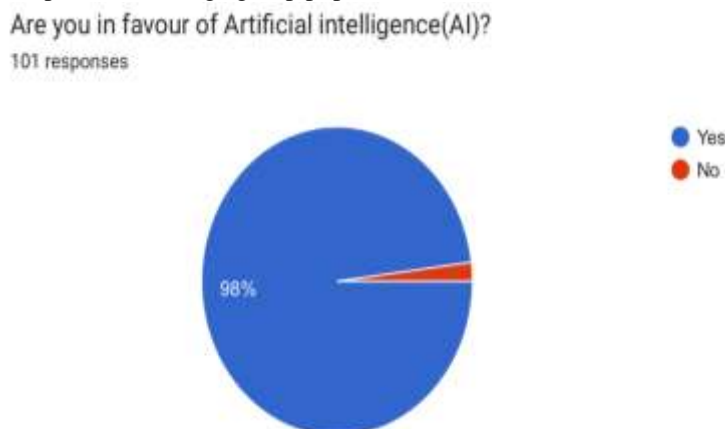
Addressing these ethical, legal and societal challenges is essential to promote AI practices and maintain trust in accountancy profession.

**Survey on the impact of AI in accountancy**

The survey utilized a yes-no approach to gather other people’s opinions and perspectives on the impact of Artificial Intelligence(AI) in the field of accountancy. Quantitative data obtained from the survey helped in analyzing trends and patterns. A stratified random sampling technique was employed to select a diverse sample including accounting professionals, auditors and public accountants to ensure comprehensive representation. The survey was distributed electronically to the selected population.

**Data Analysis**

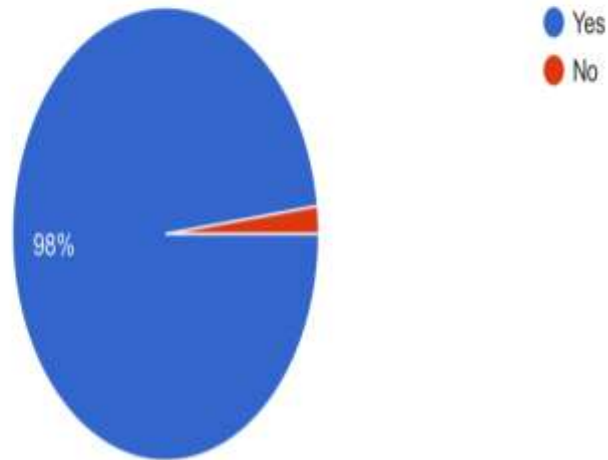
The sampling method was diverse including all age groups and genders increasing its reliability and providing us with the perspectives and opinions of a large group/population.



A large part of the population is in favor of artificial intelligence(AI) and finds the introduction of AI necessary in the field. According to the survey results, 53% of the respondents perceive AI as a threat, whereas the remaining do not. The respondents perceive AI as a threat to traditional accounting procedures.

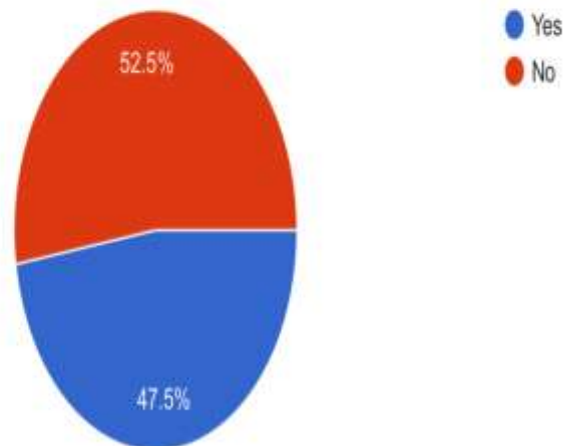
Are you in favour of Artificial intelligence(AI)?

101 responses



Do you see artificial intelligence(AI) as a threat to banking and finance?

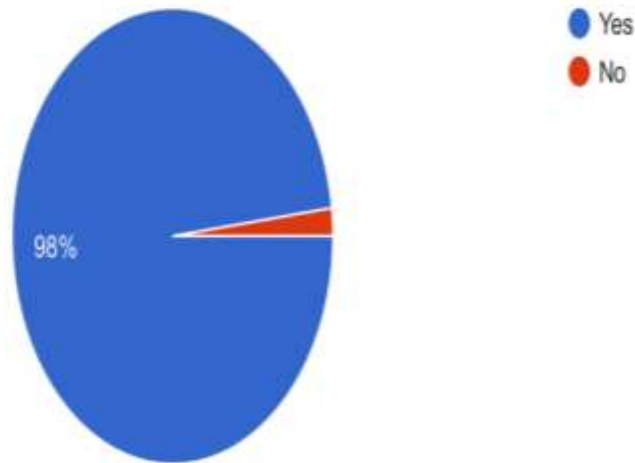
101 responses



The majority of the respondents feedback indicated that they consider AI to be an asset to the finance and banking sector. According to the participants feedbacks, AI increases accuracy and transactional work.

Do you think AI technologies have the potential to improve accuracy in accounting procedures?

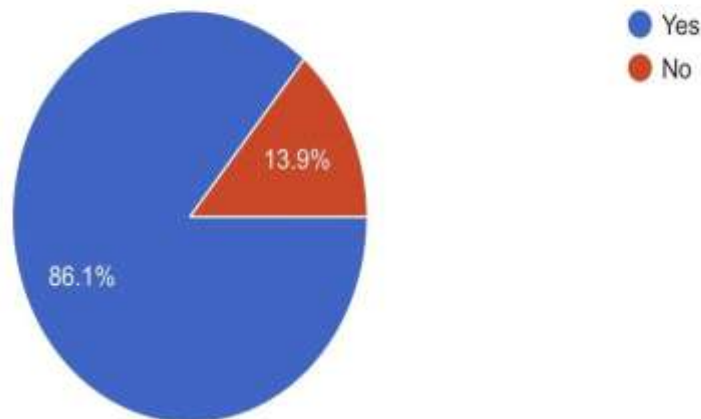
101 responses



Some respondents still find AI as a threat. As one respondent stated, “While AI may introduce efficiency, it poses a significant threat to the traditional methods of accounting, potentially diminishing the role of human accountants and causing unemployment.”

Do you think that the introduction of Artificial Intelligence(AI) is necessary?

101 responses



The survey findings reveal a majority of people expressing their belief that the introduction of AI is necessary. This collective perspective provides us with a widespread acknowledgement of the potential benefits of the introduction of AI.

**Conclusion:-**

In conclusion, integration of AI into accountancy provides a fundamental shift, promising increased efficiency, accuracy and strategic insights. Challenges and considerations still persist but the potential is undeniable.

As AI becomes an integral part of the profession, accountants must embrace to it. AI will provide new opportunities to accountants, it holds the potential to redefine the roles of this profession. The transformative journey requires a balance between human expertise and technological advancements.

With this evolution, stakeholders in the field will be forced to redefine the industry, foster innovation and to shape a dynamic future where AI becomes a cooperative ally rather than a disruptor.

“The question of whether a computer can think is no more interesting than the question of whether a submarine can swim”

### References:-

Here are 20 references for the research paper on "Integrating AI into the future of accountancy":

1. Agrawal, A., Gans, J., & Goldfarb, A. (2018). Prediction machines: The simple economics of artificial intelligence. Harvard Business Press.
2. Alles, M., Kogan, A., & Vasarhelyi, M. A. (2018). Audit data analytics: A primer. *Journal of Emerging Technologies in Accounting*, 15(1), 1-14.
3. Baldoni, M. (2020). The Ethics of Artificial Intelligence in Finance. Springer.
4. Brynjolfsson, E., & McAfee, A. (2017). The second machine age: Work, progress, and prosperity in a time of brilliant technologies. WW Norton & Company.
5. Chapman, C. S. (2020). Business Process Management, Analytics, and Artificial Intelligence: Reconceptualizing the Role of Accounting Information Systems. *Journal of Information Systems*, 34(1), 123-143.
6. Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What is disruptive innovation? *Harvard Business Review*, 93(12), 44-53.
7. Cokins, G. (2017). Predictive Analytics: Fundamentals and Use Cases for Accountants and Auditors. *Journal of Accountancy*, 224(2), 38-43.
8. Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108-116.
9. DeLone, W. H., & McLean, E. R. (2016). Information systems success measurement. *Foundations and Trends® in Information Systems*, 2(1), 1-116.
10. Dhar, V. (2018). Digital decision making: Back to the future. *Journal of Management Information Systems*, 35(2), 342-365.
11. Eccles, R. G., & Serafeim, G. (2013). The Performance Frontier: Innovating for a Sustainable Strategy. Harvard Business Review Press.
12. Economist Intelligence Unit. (2016). Crunch time III: The CFO's guide to cognitive technology.
13. Epstein, M. J., & Buhovac, A. R. (2014). Making sustainability work: Best practices in managing and measuring corporate social, environmental, and economic impacts. Berrett-Koehler Publishers.
14. Halper, F. (2017). Advanced analytics: Opportunities and challenges. CIO Insight.
15. Kiron, D., Prentice, P. K., & Ferguson, R. B. (2017). Leading with next-generation key performance indicators. MIT Sloan Management Review and Deloitte.
16. Laursen, G. H., & Thorlund, J. (2016). Business analytics for managers: Taking business intelligence beyond reporting. John Wiley & Sons.
17. McAfee, A., & Brynjolfsson, E. (2017). Machine, platform, crowd: Harnessing our digital future. WW Norton & Company.
18. Morabito, V. (2017). Business models for the internet of things. *Journal of Management Information Systems*, 34(3), 720-736.
19. Phillips, R. (2017). Data and analytics in the audit function: A Deloitte point of view. Deloitte Insights.
20. Press, G., & Dyche, J. (2012). Mining the social web: Analyzing data from Facebook, Twitter, LinkedIn, and other social media sites. " O'Reilly Media, Inc."