
IMPACT OF ARTIFICIAL INTELLIGENCE (AI) ON ACCOUNTING PROFESSION

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**ABSTRACT**

Artificial Intelligence (AI) is a rapidly evolving technology that brings great convenience to life, but at the same time, some risks need to be assessed. This technical paper will discuss AI processes that are taking place in the current scenario at accounting firms and their impact on them. Artificial intelligence has great impact in every spheres of economy. The increasing role of artificial intelligence in the field of accounting has raised the question about the future of the profession. The basic Idea and various field of application of AI in accounting, has been discussed here. In this study the opinion of various reviewers are analyzed and a comparison is made to get the impact of AI in accounting profession. In future business world vast data processing and its interpretation is required. Implementation of AI is obligatory and Accountants and professionals need to develop their skills. In this study discussion have been made on requirement of AI in accounting profession through analyzing its merits and demerits. In conclusion the study suggests that AI will not replace accountant but their profession will be changed in nature.

Keywords: Artificial Intelligence, Accounting, Auditing, Technology

1. INTRODUCTION

The world today is living in the era of digitization. The use of digital technology is increasing by day in all aspects of life, especially in the business sector as economic units today find themselves facing the inevitability of keeping pace with this change and the necessity of digital transformation of their businesses. The adoption of AI helps to improve the efficiency of companies by reducing errors, managing risks, gaining competitive advantage, and enhancing the efficiency of employees. By integrating AI into accounting and auditing, the profession will go through a fundamental change, and its impact will be more significant in the future because of the advanced information technology development .

AI is designed to function and handle tasks that only intelligent humans can perform. It allows computers to make predictions based on the input and adapt to how they respond in certain situations. AI aims to create a system using a computer that can function intelligently and independently, allowing accounting professionals to use their time to analyze the fairness and accuracy of the financial statements and become advisors to the companies. Traditional system of accounting ,reporting, financing and auditing will no longer exist and all business have to accept AI based accounting technology in near future to exist in the market. In this context there arises great fears of loss of job and obsolescence of existing equipment and software. The cost of implementation of AI also arises. The need for efficient personnel to handle those technologies arise also. The introduction of AI in business environment has great impact in the long run. It will revolutionize the system of

accounting and finance. In this study discussion has been made about the impact of AI in accounting and its various fields.

2. LITERATURE REVIEW

Accountants would make decisions based on often outdated figures but with the automation of data processes always up to- the-minute information enable better- grounded decision affecting the business performance. In addition, AI-powered applications have renovated the way accountants prepared financial statements. Conventionally, accountants used to spend a significant time span to manually reconcile accounts and to prepare financial statements (Das, 2021). However, by introducing AI-powered applications, these complex tasks are automated, which helps the accountants save valuable time and allows them to focus on more strategic activities. AI-powered software can extract financial data from numerous sources, collect data, and produce financial statements with slight human intervention (ICAP, 2023). By integrating AI applications in the accounting and auditing profession, accounting firms have experienced several advantages such as improved efficiency, greater accuracy, and higher decision-making capabilities.

With the progress of Technology some jobs are eliminated while others are created (Greenman 2017). According to Accenture Consulting, (2017),. Most clients prefer to have both Artificial Intelligence and human expert to recommend interpretation of the results and where business will be under performing. Chukwuani & Egiyi (2020) examined the impact of artificial intelligence on accounting industry. 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 accountant of the 21st century can adapt to the wide spread automation in the industry. Luan et.al.,(2020) talked about the challenges and directions of AI technology and big data in education ,research, policy making and industry. Their argument is that in reaction to the innovation and dilemmas brought forth by the AI and big data revolution academia, policy makers and professionals from variety of discipline must engage in effectual collaboration to fully actualize the potential of the AI and the data advancement. Their collaborative approach is essential, but major problem is lack of vision of the part of the group and lack of knowledge and skill also. Emergence of AI is an opportunity not a challenge for the accounting industry and accountants. It may trigger few accountants job loss; but eventually it will not oust accountants requiring accounting personnel to have a good eye on AI to gradatim invigorate their sheer dexterity and to transform from traditional accounting personnel to management type, high-end accounting personnel (Pradip Kumar Das, 2021).

3. FOCUS AREAS OF APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND AUDITING

Based on study of existing literature the main areas of application of AI in the field of accounting and auditing are as follows:

- (a) **Expert Systems (ES):** it is the subset of knowledge based system that include an expert's expertise in the system knowledge base. In financial accounting Expert Systems is applied in designing financial statement and Accounting Information system processing invoices and putting entries, assessing standards, developing worksheets etc. In auditing and inventory control system ES is also applicable.
- (b) **Continuous Auditing:** Zhao et al.(2004) highlighted that continuous auditing is associated to paperless accounting information systems, significant technical hurdles, lack of standards and guidance, increased value of real time financial information and timely audit report.
- (c) **Decision Support System (DSS):** it is a Computer Based system which is interactive, adaptable and versatile and helpful in decision making process. The use of DSS can be found in various unstructured accounting, auditing and Management tasks.
- (d) **Deep Learning & Machine Learning:** here computer system imitate the human thinking and learning to perform a particular job. As per ibm.com Machine Learning is a branch of Artificial Intelligence and computer science which focuses on the use of data and algorithms to imitate the way that human learn, gradually improving its accuracy.
- (e) **Neutral Network (NN):** It is a machine learning system that is applied in risk assessment which is a fundamental part of the auditing process.

4. DISADVANTAGES AND CHALLENGES OF USING AI APPLICATIONS IN AUDITING AND ACCOUNTING

A great many people have already tried or heard how using AI technology has revolutionized modern, every-day life. However, AI has its disadvantages and challenges as well. As for the disadvantages of implementing

AI in the auditing and accounting profession, several researchers (Kumar Doshi et al., 2020; Mohammad et al., 2020; Chukwuani & Egiyi, 2020; Luo et al., 2018; Kokina & Davenport, 2017; Makridakis, 2017) have pointed out various downsides.

These include:

- (a) The huge cost of building, updating and maintaining systems, - prolonged decision processes as a result of exploring more alternatives.
- (b) Lacking the abilities of human beings to practice reasoning, exercise professional skepticism and exert professional judgment.
- (c) Increasing technological unemployment.
- (d) Frequent changes in law and regulations also require updating the AI system.
- (e) Creating possible income inequality and reduction in the need of labor.
- (f) Risk of AI tools being transferred to competitors and the possibility of those being used against the auditor.
- (g) Higher requirements for accountants since they need to acquire computer knowledge in addition to accounting.
- (h) Significant decrease in the demand for low-level accountants.
- (i) Accounting work is done by computers through networks, so it is inevitable to have an impact on the financial data security.
- (j) Algorithms being exploitative, deceptive, internally biased or containing human logic errors or imbedded human biases.

5. EFFECTS OF IMPLEMENTATION OF AI IN ACCOUNTING

From the above discussion it is clear that every organization should accept AI undoubtedly. The emergences of such disruptive technology always bring some problems. There are various ways to overcome these problems. There are some ethical concerns for implementation of AI. Abolition of traditional system cannot be accepted by all professionals. There are so many questions for cyber security laws. There may arise new techniques of committing frauds. So formulation of new cyber security law, Data protection laws, Artificial Intelligence law are essential and their implementation also. Policy formulation at both National and information level will be required to standardize use of cognitive technologies. Fear of unemployment is associated with the implementation of AI. In future there may exist some sorts of professional hybrids, no one will be associated with a permanent job; freelancer's opinions will be hired. So compliance towards organization and responsibilities for human resource will be neglected.

The World Economic Forum (WEF) has issued numerous reports forecasting how AI will impact jobs worldwide. Automation through implementation of AI will result in an increase of 58 million jobs, twothird of which will be highly skilled. In the field of accounting various types of automation has been introduced day by day. Computerized accounting system replaced the traditional paper works. Introduction of EDI Technology and various accounting software have made many dramatically shift in the work process. Initially there was a fear of loss of jobs but it will ultimately provide scope for new employment. For example in the early days of bookkeeping, software accounting jobs changed drastically. Intuit launched in 1983 and Microsoft Excel launched in 1985 did not in fact represent the demise of human book keepers as many feared. Instead the field grew 75% over the course of a decade.

6. CONCLUSION

Emergence of AI in accounting is an opportunity not a challenge for the accountant and accounting industry. Accountant should welcome AI Technology, they should improve their knowledge about it and should produce maximum output. Educationalist should improve and modernize their syllabus for students to learn the new technology. Sufficient training and skill development techniques to be implemented by the organization so that these can go with the existing work force. New rules regulation and policies to be made by the government to provide cyber security. Thus there should be the clear path for development with the help of modern technology.

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