ROBOT HUMAN INTERACTION: ROLE OF
ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND AUDITING

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ABSTRACT

'Artificial intelligence is growing up fast, as are robots whose facial expressions can elicit empathy and make your mirror neurons quiver.'

– Diane Ackerman.

Artificial intelligence is proving to be of great help to human kind in many fields. Coming to Accounting and Auditing it serves many purposes and increase accuracy and precisions of the final output. It can complement Human efforts in these fields, help disentangle ocean of Data's and help them focus on more relevant issues like problem solving, planning. It has made such a complex work easy and feasible in lesser time. The aim of this study is to examine the effect of artificial intelligence on the performance of accounting and auditing operations.

KEYWORDS: *Artificial Intelligence, Accounting, Auditing, Machine Learning.*

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Introduction

In Today's Transforming world, Digitalisation makes the use of technology more fruitful. The idea of 4th Industrial Revolution is under constant scrutiny and discussions. It prepares platform where businesses can be fully digitalised, make use of robotics and use of Artificial intelligence in accounting and auditing. Audit firms have to assimilative Artificial learning for providing measures of risk aversion and cost savings to their clients. This new evolution can be called as AI facilitated audit. This has changed the style of accounting from paper work into computerised format. To put forward simply, AI has made processing of mammoth size data easier and faster. It definitely beats human capacity in this case. It reduces efforts made in accounting works like review of journal entries, readings of contracts, making legality of financial accounts in a given manner. It also provides a mechanism for comprehend ledgers; recognise wrong statements and any risk related reports. The 'Association of Charted Certified Accountant' shows how machine learning techniques have challenges the progress report of deskilling of accountant operations.

Motive of the Study

To study the importance of artificial learning in accounting and auditing areas and measure the decree of forthcomings regarding artificial intelligence in accounting.

Research Methodology

- Type of Research: Descriptive/Expressive Research
- Type of Data Source used: Secondary Data/Data source.

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The data has been extracted from various sources like research articles, publications, accounting websites, Articles, essay from Newspapers, Magazines and Journals from the various web-sites which deals directly or indirectly with Artificial intelligence. Descriptive research was chosen for developing a better understanding in profundity.

Limitation of the Study

The study relies on published data and information. No primary data is being collected. Secondary data may be lacking in accuracy, or they may not be completely current or dependable.

Research Questions

The research questions are as follows:

- How accounting functions and firm's performances can be measured through AI?

- How the auditor who lacks in AI accomplishments, skill and detraining the data, adept in AI methods and techniques.

Artificial Intelligence

"Nils J. Nilsson separates AI into its components: Artificial (machine, as opposed to human) + intelligence. In order to gauge the intelligence of an entity, Nilsson falls back on the Turing Test. Moreover, he believes that with increased complexity of the machine comes increased intelligence".

The word "Artificial Intelligence" was coined by John McCarthy. It is an experimental part of computer science where it expels the diverse use of machines. There are different activities that computers can perform using AI techniques can be recognition of speech, attainments in auditing, structural planning and judicious tasks.

The 4th Industrial Revolution

At the age of 1950s the 1st project regarding AI was performed and made efforts to find the equality between the capacity and intelligence of robots and humans. From the past 60 years the advancements in machine learning comprehend the exclusive use at large but not fully reinstate the actual refinement of Human judgments'. In his book, "The Fourth Industrial Revolution," founder and executive chairman of the World Economic Forum, Klaus Schwab, states that "Data is becoming as valuable as oil and metal". The book references a survey that finds that one of the upcoming technological shifts will occur when 30% of corporate audits will be conducted by AI, which 75% of respondents expect to happen by the year 2025.

Major Impacts of AI in Accounting and Auditing Tasks

- **Accounting Tasks which AI Performs**

As AI gives a platform for accounting firms to explore and grasp the latest technology driven aspects. Some of the useful accounting tasks AI performs are listed below:

- It helps companies by obtaining, consolidating and merging data from different and numerous sources. This saves their time and helps them to plan their goals effectively.

- AI helps in searching and accessing digital files easily. Now this increases the precisions of the auditing done as a firm's financial transactions can be looked upon easily.

- It can review receipts, expenses and identify if there is any breach of accounting policies and procedures.

- It helps resolve queries of the consumers and keep track their account balance, pending bills etc.

- **AI Based Auditing**

Interrogating the Auditing functions through AI can decreases the mammoth size of work from both client and company sides. In auditing the analysis of ledger or financial reports or any manual efforts that can be minimize by AI and auditors are able to provide a better context than before. Auditor can gather the useful data with machine learning for identifying the repercussions and praiseworthy aspects related accounting terms and risk solving factors.

Role of AI in Accounting Area

To put efforts regarding the betterment of accounting, accountants and stakeholders should apply their technical knowledge and must have information about financial and non financial transactions in best quality. AI interprets the role of accountants as to check the financial position of a company and helps to make decision in precise way. For example giving database in cost effective manner, producing new techniques for analysis and saves time so that focus can be shifted from manual accounting tasks to decision making, building relationships and tackle problem.

Public Accounting Firms - Investing Large Amounts in Machine Learning

"Jon Raphael", the chief innovation officer at Deloitte Touche Tohmatsu Limited (Deloitte), states that, with the effective implementation of cognitive technologies, the audit process will become "smarter, more insightful, and more efficient. This is the future of the audit profession, and the users of financial statements deserve it" (Raphael 2015).

Deloitte is collaborating with Kira Systems Inc., also put forward the importance of AI in the field of accounting and under this contract it creates cognitive models for extracting the information and would be use for better analysis and helps auditors' review documents easily.

DeNovo AI techniques are used by price water house coopers for evaluation the future use of financial technology for helping analyst and clients. (MIT Technology review 2016).

Experts' Reviews

Li Deng**,** chief AI officer, Citadel: "There are a few factors that really propelled AI to this current state-what many people call "the third wave." The first wave died because people were probably too naive. They overestimated the future. And at that time, of course, even into the second wave, the computing power wasn't there, and there wasn't even the concept of big data. So when AI evolved, maybe 20 years ago, into something called machine learning, where data became the key to AI that was a big advancement-people understood the importance of data".

Rajat Monga**,** engineering director, Tensor Flow, Google*:* "AI is going to be part of nearly every application we have around us. It's going to be part and parcel of everything we do, just like the Internet has changed things".

Impact upon Workforce

In 2015, University of Oxford research shows that AI replaces the role of accountants as it was found a 95 percent change of losing jobs related to accounting as machines plays a superior role behind these tasks. This report also found that some jobs are eliminated but others are created because of progression of technology. As a result, this is not surprising for making concern regarding automation in auditing as it creates productivity and driving overall cost down. (Pacific Standard 2015).

Conclusion

Artificial Intelligence is in a hot spot these days. Countries are taking it seriously and of course for the right reasons. AI paves way for a better and conducive environment in the field of accounting and auditing. Development in the field of AI can definitely be a great help to human efforts. Adoption of AI should be embraced and efforts to increase its potential can do wonders in such field workload is huge and include ocean of data.

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