ARTIFICIAL INTELLIGENCE IN ACCOUNTING PROFESSION: A WAY FORWARD

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ABSTRACT

Artificial intelligence (AI) is a buzz word in today's world irrespective of discipline. Accounting discipline is not an exception for AI application. Application of AI in accounting is enormous right from automating repetitive tasks, increasing accuracy and efficiency. AI creates potential to do more work with the available resources. AI facilitates in automating administrative tasks of accountants and there by create more time for analyzing and interpreting the data. AI facilitates accounting profession in three main areas. The first major area of AI application is invisible accounting, where AI automatically manages the process of gathering, sorting and visualizing data. The second most important area where AI helps accounting profession is in the area of continuous audit. AI can handle data review very fast. It can detect duplicate invoices; it can also help in assigning expenses to the correct categories. This facilitates continuous audit and build trust through better financial protection and control. The third area where AI is used in accounting profession is in gaining insights for better decision making. AI assist in business decision making based on actionable insights obtained from past transactional data and external factors. The article focus on discussing about AI application in the above mentioned areas by mentioning practical examples of AI implementation. The article will also highlight the benefits and challenges of AI implementation in accounting firms.

KEYWORDS: *Artificial Intelligence, Book-Keeping, Audit, AI- Ecosystem, Digitalization.*

1. INTRODUCTION:

Artificial Intelligence (AI) aims to replicate human intelligence in machines and AI applications are revolutionizing all sectors of the economy, be it manufacturing or service organizations. AI tools are being used in in the banking, insurance, retail, healthcare and manufacturing sector extensively. Accounting profession too no exception for it (Raghu, 2021) **[1]**

Digitalization and automation of accounting processes is the future of accounting. AI plays vital role to transform the accounting industry with technology replacing the need for human involvement in tedious and repetitive tasks. AI aims to create robot accountant. The vision of AI is to apply the latest technology to improve financial activities, setting up of businesses, compliances with companies act, preparation of accounts and taxes. AI helps to streamline data entry like accounting book keeping that are time consuming and tedious. AI will strengthen due diligence and thereby reduce the possibility of mistakes and money laundering (Chai Chung Hoong, 2019) **[2].**

Application of AI in Accounting:

Book keeping: The foremost application of AI is book keeping. It is one of the most routine and laborious activity which can be automated using AI. Using AI the double entry system logic can be coded to make the accounting entries automatic. Thus this application of AI ensures accounting accuracy.

Fraud prevention: Some of the common frauds in accounting like asset embezzlement, tax evasion, cash skimming, and financial statement falsification can be traced by using AI. Computer driven predetermined rules fraud detection.

Sales forecasting: To prepare various types of operations budget sales forecasting is very important. AI helps in accurate sales forecasting during uncertain and risky environment.

Business strategies: AI through big data analytics enables manager's in redefining business strategies.

Internal control and risk management: AI based big data and predictive models assist accountants in internal control and risk management Sorting business transactions: AI supports in sorting and examining business transactions susceptible to fraud during internal audit.

Taxation: AI can also be applied in assisting tax area such as tax treatment on stock investments, corporate tax accrual and planning process, calculating value added tax, international tax planning and optimization of international corporate tax position.

Miscellaneous application: AI can also be used for various miscellaneous application such as processing of various claims, cash flow analysis, merger and acquisition evaluation, investment decision, calculating of financial ratios and preparation of financial reports for filing with regulators (Sandeep Ganpat Kudtarkar, 2021) **[3].**

Audit: AI also supports in financial statement audits. It enables in population driven audit, rather than sample driven audit (Bob Violino, 2019) **[4].**

AI Enabled Accounting Projects by CPA firms

Public accounting firms such as Deloitte, Ernst & Young, PricewaterhouseCoopers, KPMG and many others are developing AI enabled accounting software. Here is the overview of the some of the applications.

Deloitte developed an AI-enabled document-reviewing process in 2014. The system automates the process of reviewing and extracting relevant information from various documents. Working with IBM Watson, Deloitte is developing cognitive-technology enhanced business solutions for its clients.

Ernst & Young (EY) applied AI to the analysis of lease contracts. EY (Australia) has adopted AI-enabled auditing technology. EY has launched an AI project using computer vision to enable drones to monitor inventory during the auditing process. EY is using deep learning to analyze unstructured data such as e-mails, social media posts, and conference call audio files.

PricewaterhouseCoopers (PwC) Collaborating with H2O.ai (leading AI cloud platform company) developed an AI-enabled system (GL.ai) capable of analyzing documents and preparing reports. PwC claims to have made a significant investment in natural language processing (NLP), an AI-enabled technology to process unstructured data efficiently.

KPMG built a portfolio of AI tools, KPMG Ignite, to enhance business decisions and processes. Working with Microsoft and IBM Watson, KPMG is developing tools to integrate AI, data analytics, cognitive technologies, and Robotic process automation (Paul Lin and Tom Hazelbaker, 2019) **[5].**

Opportunities to Accounting Profession due to AI

AI provides opportunities for accounting professional to handle routine activities and they can productively engage in solving broad issues, support decision making by providing better and cheaper data, doing rigorous data analysis, imparting new insights on business and focusing on more valuable tasks (Sandeep Ganpat Kudtarkar, 2021) **[3].**

Challenges to Accounting Profession due to AI

AI reduces routine work of accounting profession from, this leads to threats in terms of job displacement. Accounting professionals face practical challenge in converting rules and regulations into if-then rules and decision trees to be exercised in AI logic. The diverse and complex nature and large volume of AI and big data makes it imperative for accountants to acquire new job skills for big data analytics. Automation speed of accounting profession is hindering behind due to technical practicability, higher outlay for setting automation. The AI productivity will depend upon organizations structure and culture, pattern of business models and competition in idiosyncratic industry. The key challenges for policy makers are encouraging investment in new technologies and framing policies to assist labor force and organizations to deal with adverse impact of adapting AI automation if any in future(Sandeep Ganpat Kudtarkar, 2021) **[3].**

Way-Forward:

For harnessing AI in the best interest of accounting profession the following points has to be focused. An exhaustive listing of the accounting activities may be done to ascertain activities most receptive to automation. The accountants should upskill to work in AI ecosystem to derive benefit from technology. The right approach to deal with the challenges of job displacement is to analyze which accounting activities can be substituted by AI, when and how. The accountants can play higher roles in strategic areas (Sandeep Ganpat Kudtarkar, 2021) **[3].**

2. CONCLUSION:

AI revolution is bringing significant changes in accounting professions role and functions. It is important to adapt to the technology and develop new competencies to manage the emerging requirements.Adding artificial intelligence to accounting operations can improve output quality and decision-making. It can also allow accountants to focus on performing high-value, high-impact tasks. However, businesses need to effectively manage the risks of implementation and drive behavioral changes that build a truly digital workforce to truly benefit from such technologies.

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