Original Research Article

TO STUDY THE OVERVIEW OF ARTIFICIAL INTELLIGENCE AND ITS OPPORTUNITY & CHALLENGES IN ACCOUNTING

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Abstract:

AI is the backbone of innovation in modern computing, unlocking value for individuals and businesses. Deep learning, a further specialization, utilizes artificial neural networks with multiple layers to process information, mimicking the structure and function of the human brain. Through continuous learning and adaptation. AI in accounting refers to the use of artificial intelligence (AI) technologies, such as machine learning algorithms and natural language processing, to automate and enhance various accounting processes. Enterprises that jump on the digital transformation train by adopting AI have the advantage as they can leverage AI to all aspects of accounting, including improved operational efficiency, reduced costs. No doubt, the stakeholders of an enterprise have recognized the value of adopting AI-powered systems and applications. However, it also requires a shift in the mindset of more than the CFOs. Sufficient training and skill development techniques to be implemented by the organization so that these can go with the existing workforce.

Keywords: *Artificial Intelligence, Accounting, Technology, Machine Learning Algorithms.*

Introduction:

Artificial Intelligence (AI):

Artificial intelligence (AI) is a set of technologies that enable computers to perform a variety of advanced functions, including the ability to see, understand and translate spoken and written language, analyze data, make recommendations, and more. AI is the backbone of innovation in modern computing, unlocking value for individuals and businesses. For example, optical character recognition (OCR) uses AI to extract text and data from images and documents, turns unstructured content into business-ready structured data, and unlocks valuable insights. Artificial intelligence is a field of science concerned with building computers and machines that can reason, learn, and act in such a way that would normally require human intelligence or that involves data whose scale exceeds what humans can analyze. AI is a broad field that encompasses many different disciplines, including computer science, data analytics and statistics, hardware and software engineering, linguistics, neuroscience, and even philosophy and psychology. On an operational level for business use, AI is a set of technologies that are based primarily on machine learning and deep learning, used for data analytics, predictions and forecasting, object categorization, natural language processing, recommendations, intelligent data retrieval, and more.

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 decisions affecting the business performance.(Alex et.al.,2014)
- More and more automation and Technological advancement would displace human in their work by 2025.(Alex et.al.,2014)

Objective of the Study:

- To study the overview of Artificial Intelligence.
- To study the overview of Accounting operations for business.
- To discuss the impact of artificial intelligence on accounting operations.

Research Methodology:

The study is descriptive in nature and conducted through study of various literature and published secondary data .Thus the study purely adopts secondary data source through internet and academic database like literature reviews, empirical studies, website, books, journal, reports

Focus Areas:

How does AI work?

While the specifics vary across different AI techniques, the core principle revolves around data. AI systems learn and improve through exposure to vast amounts of data, identifying patterns and relationships that humans may miss.This learning process often involves algorithms, which are sets of rules or instructions that guide the AI's analysis and decision-making. In machine learning, a popular subset of AI, algorithms are trained on labeled or unlabeled data to make predictions or categorize information. Deep learning, a further specialization, utilizes artificial neural networks with multiple layers to process information, mimicking the structure and function of the human brain. Through continuous learning and adaptation. AI systems become increasingly adept at performing specific tasks, from recognizing images to translating languages and beyond.

AI in Accounting:

AI in accounting refers to the use of artificial intelligence (AI) technologies, such as machine learning algorithms and natural language processing, to automate and enhance various accounting processes.This includes tasks such as financial reporting, audit and compliance, fraud detection, and data analysis.AI in accounting can help improve accuracy and efficiency, reduce costs, and provide valuable insights and predictions for decision-making.

The role of AI and technology in the future of accounting:

- Accounting has always been an essential function in business, responsible for managing financial transactions and keeping accurate records. Today, Artificial Intelligence (AI) and digital technologies are transforming the accounting industry in unprecedented ways. These technologies are revolutionising accounting by automating routine tasks, reducing errors, improving accuracy, and increasing efficiency.

- AI and technology are also changing the way accounting professionals approach financial forecasting and planning. With the help of machine learning algorithms, accounting teams can analyse historical data and make accurate predictions about future financial performance. This allows businesses to make informed decisions about investments, resource allocation, and risk management, leading to greater profitability and long-term success. In addition to these benefits, AI and technology are also enabling accounting teams to work more collaboratively and efficiently. Cloud-based accounting software allows team members to access data from anywhere, at any time, making it easier to share information and collaborate on projects.

- This leads to greater transparency, accountability, and accuracy, as everyone is working from the same data source. While there may be concerns about technology and AI taking away accounting jobs, the reality is that these technologies will enhance and aid in the productivity of accounting teams. These technologies enable accountants to complete tasks more quickly, accurately, and efficiently, freeing up their time to focus on more strategic work such as

data analysis, forecasting, and decision-making.

- New technology is shaping Industry 4.0 in every vertical with intelligent responses to changing expectations of customers, suppliers, vendors, and partners. Automation enables a reduction of 80-90% of the time previously taken by the workforce in performing disparate and repetitive tasks manually. It also enhances the quality of the output by reducing human error.

- Almost all accounting tasks, including payroll, tax, banking, and audits, have become automated with AI, disrupting the accounting industry, and bringing about a big change in how business is done.

- AI boosts productivity and output quality even as it results in greater transparency and auditability.

- AI provides a broad range of opportunities and minimizes the traditional time-consuming responsibilities of the finance team to look at more venues for business growth.

- AI helps in forecasting accurate financial statements. With machine learning (ML), finance professionals can predict future trends based on historical data/ records.

Opportunities of AI in Accounting:

- Enterprises that jump on the digital transformation train by adopting AI have the advantage as they can leverage AI to all aspects of accounting, including improved operational efficiency, reduced costs, and more significant ROI. For instance:

1. **Payables/ Receivables Processing:**

    Invoice processing is considered one of the more time-consuming and labor-intensive parts of the enterprise. AI-based invoice management systems help by increasing the volume, performing zero-error processing, and improving vendor relationships.

2. **Supplier Onboarding:** The AI-based approach helps expand customers' reach, increase revenue, and evaluate the suppliers with minimal human intervention.

3. **Procurement Processes:**

    Purchasing and procurement processes mean a lot of paperwork - sometimes in different systems that are seemingly unconnected! With AI-driven workflows, finance teams can process unstructured data while automatically mitigating governance/compliance/risks.

4. **Auditability:**

    Data analytics establishes the scope of the audit, and risk assessment as RPA and analytics facilitate tracking of routine transactions. Cognitive computing, predictive analytics, and AI enable tracking more complex transactions that go with estimates and judgments.

5. **Monthly and Quarterly Cash Flows:**

    AI-based tools empower enterprises to reconcile financial activities quickly, understand historical cash flows, and predict future cash requirements. AI applications also ensure that all financial processes are secure by collecting data from many sources and integrating the data.

6. **Expenses Management:**

    When manually done, managing expenses-related processes is not only filled with complex paperwork - but also prone to fraud and data breaches. Expenses management automation ensures almost zero errors and alerts the team to a breach if it occurs.

7. **Chatbot Support:**

    AI-driven chatbots help solve user queries quickly and efficiently, including queries on account balance, financial statements, account status, etc. Tracking outstanding invoices and automating the follow-up collection processes with AI ensures that accounts are kept balanced and closed promptly. Moreover, AI chatbots answer customers' routine questions and can provide level-1 support.

Challenges of adopting AI in accounting:

- No doubt, the stakeholders of an enterprise have recognized the value of adopting AI-powered systems and applications. However, it also requires a shift in the mindset of more than the CFOs. The finance and accounting professionals need to make the shift and equip themselves with the necessary skills and knowledge.

- The finance teams must appreciate that they are now free to contribute to new business relationships, improve existing partnerships, and work from a position of strength, thanks largely to AI and the resulting critical insights.

- Enterprises must not only invest in technology but also the workforce required to handle said technology. It means that they must also provide proper training and support for the teams to use AI to optimize productivity efficiently.

- As advanced technology evolves, it will only become more sophisticated, with more tools and systems becoming available to finance and accounting. The rapid expansion into digital transformation with AI and automation sets the pace for quick learning and the adoption of new ways of time and cost-cutting.

- Finally, finance and accounting teams adopting AI to their practice will be better able to analyze a tremendous amount of data, identify patterns and trends. Even better, they will be able to use the latest technology and tools to support various working modes and geographies by taking over routine tasks that are better suited to machines.

Suggestions:

- The finance and accounting professionals need to make the shift and equip themselves with the necessary skills and knowledge.

- Accounting teams adopting AI to their practice will be better able to analyze a tremendous amount of data, identify patterns and trends.

- AI ensures that accounts are kept balanced and closed promptly

Conclusion

- Emergence of AI in accounting is an opportunity not a challenge for the accountant and accounting industry. Accountants should welcome AI Technology, they should improve their knowledge about it and should produce maximum output.

- 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.

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