Impact of Artificial Intelligence (AI) on Accounting and Finance Functions

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Abstract
The integration of AI in accounting and finance presents both opportunities and challenges. The study examined the impact of Artificial intelligence on accounting and finance functions. The study adopted historical descriptive research method and secondary data was used because of the largeness and nature of the study. The main objective of the study is to examine the impact of Artificial intelligence on accounting and finance functions. The specific objectives were to determine the impact of Ai on time savings on specific tasks, to identify the impact of AI on job displacement. The study revealed that AI has positive and significant effects on the variables of the study. The study concluded that AI and data science are not just technological advancements, they are tools for creating a better future. The study recommends among others retraining and up skilling initiatives to effectively implement AI strategies.

Key Words: *Artificial intelligence, Accounting, Finance Function etc.*

INTRODUCTION

New technology is shaping industry 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 desperate and repetitive tasks manually. It also enhances the quality of the output by reducing human error. (Kokina, 2019)

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. (Baldwin, 2022)

AI-enabled systems support auditing and compliance with corporate, state and federal regulations by monitoring the pertinent documents and raising alarm where necessary. ML algorithms sift through voluminous data, identity potential fraud issues and flag then for review to avoid loss of revenues. (Chukwudi, 2024)

Artificial intelligence (AI) is rapidly transforming various sectors and accounting and fiancé are not exceptions. AI's ability to process vast amounts of data quickly and accurately offers significant opportunities for increased efficiency, improved decision making and reduce risks. This project examines the multifaceted impact of AI on accounting and finances focusing on both the benefits and challenges (Aksen,2023).

STATEMENT OF THE PROBLEM

The integration of AI in accounting and finance presents both opportunities and challenges. While AI promises increased efficiency and accuracy, concern remains about job displacements data, data security, algorithmic bias and the need from sustainable investment in infrastructure and training. The study aims to explore these issues, assessing the net impact of AI on the profession and identifying strategies for successful implementation.

OBJECTIVES OF THE STUDY

The main objective of the study was to examine the impact of artificial intelligence (AI) on accounting and finance functions. The specific objectives are:

1. To determine the impact of AI on time savings on specific tasks (e.g. data entry, reconciliation).
2. Assess the impact of AI on cost reduction
3. Ascertain or identify the impact of AI on job displacement in specific accounting roles.

RESEARCH QUESTIONS

1. What are the impacts of AI on time savings specific task?
2. At what level does AI affect cost reduction?
3. At what dimension does AI impact job displacement?

HYPOTHESES FORMULATION

1. **H_0**: Artificial intelligence (AI) has no significant effect on time savings of specific task.
   H_1: AI has significant effect on time savings of specific task.
2. **H_0**: AI has no significant effect on cost reduction.
   H_1: AI has significant effect on cost reduction.
3. **H_0**: AI has no significant effect on job displacement.
   H_1: AI has significant effect on job displacement.

CONCEPTUAL REVIEW
ARTIFICIAL INTELLIGENCE

(AI) is also known as artificial intelligence, is a technology with human –like problem-solving capabilities. AI in action appears to stimulate human intelligence. It can recognize imagines, write poems and make data-based predictions (Akson, 2023)

Modern organizations collect large data volumes from diverse sources such as smart sensors, human-generated context, monitoring tools and system logs. Artificial intelligence technologies analyze the data and use it to assist business operations effectively. For example, AI technology can respond to human conversations in customer support, create original images and text for marketing and make smart suggestions for analytics. Ultimately, artificial intelligence is about making software smarter for customized user interaction and complex problem solving. (Pannu,2024).

ACCOUNTING

Accounting is the process of recording financial transactions pertaining to a business. The accounting process includes summarizing, analyzing and reporting these transactions to oversight agencies, regulators and tax collection entities. The financial statements used in accounting are a

concise summary of financial transactions over an accounting period, summarizing a company's operations, financial positions and cash-flow (Frankwood,2005).

FINANCE

Finance is defined as the management of money and includes activities such as investing, borrowing, lending, budgeting, saving and forecasting. There are three main types of finance: (1) personal 2 Corporate and (3) public/government finances (Herman,1987). In other word, "Finance is a term that addresses matters regarding the management, creation and study of money and investments. It involves the use of credit and debit, securities and investment to finance current projects using future flow(https./www.investopedia.comm,2024) (Shi,2020). Finance refers to monetary resources and to the study and discipline of money, currency, assets and liabilities. As a subject of study, it is related but distinct from economics, which is the study of production and consumption of goods and services (https://en.wikipedia.org.2024).

THEORITICAL REVIEW

This study is anchored on machine learning (ML) theories supporting the objectives of the study.

MACHINE LEARNING THEORY

ML involves algorithms that allow systems to learn from data without explicit programming. Key concepts include supervised learning (Learning from labeled data), unsupervised learning (funding patterns in unlabelled data) and reinforcement learning (Learning through trial and error). Various algorithms exist, such as decision trees, support vector machines and maiveBayers.

EMPIRICAL REVIEW

Nur (2024) investigated the impact of artificial intelligence in the accounting profession. This study employed historical survey research and the study revealed that AI has provided opportunities for improvement in how professionals carry out their work.Pannu (2024), examined artificial intelligence and its application indifferent areas. He adopted survey research design. The result revealed that artificial intelligence has improved the operational efficiency of organizations.

METHIODOLOGY

Generally, the historical-descriptive method of inquiring was adopted in the study and secondary sources of data were used because of the largeness and nature of the study. Since this research focused on Nigeria as a whole, the researcher is delimited to generalize the findings of study.

FINDINGS/ ADVOCACY

The application of AI in accounting and financial activities will facilitate the following task:
1. Detection of fraud in financial statements.
2. Enhance time savings on specific tasks e.g data entry and reconciliation.
3. Increase cost reduction in performing certain tasks.
4. By having a completely computerized method of storing your financial information, you rule out the risk of human error such as jotting down the wrong figures, misplacing information, etc.
5. Ease the process of auditing. I advocate compulsory adoption of AI by all organization.

CONCLUSION

AI and data science are not just technological advancements; they are tools for creating a better future. By addressing global challenges in resource management and social equity, they hold the potential to sustainable development in accounting and finance a reality. With continue innovation and collaboration, these technologies can help build a more resilient and equitable world. However, merging AI with accounting data base system requires vast money and time to build.

RECOMMENDATIONS

Based on the above findings, the following recommendations are proposed:
1. Retraining and up skilling initiatives to effectively implement AI strategies.
2. Mitigating risks while maximizing benefits.

CONTRIBUTION TO KNOWLEDGE
1. The findings from this study will contribute to validation of existing literature which will serve as reference materials for future research.
2. This study could serve as an important mechanism for designing institutional policies.

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