

Embracing the Future: How Artificial Intelligence is Shaping the Work of Accountants at the University of Professional Studies, Accra

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ABSTRACT

The study focused on how artificial intelligence shapes accounting practices at the University of Professional Studies, Accra, concentrating on accuracy and efficiency and how artificial intelligence influences the role of accountants at the University of Professional Studies, Accra. Qualitative research methodology was used in the study. The study employed Cross-sectional research designs. The population for the study was comprised of 20 accounting staff members from the university's finance department. A sample size of 5 participants was used for the study using the purposive sampling technique. Data was collected from primary sources through interviews using a semi-structured questionnaire. Data collected was analyzed using the NVIVO software. The result of the study indicated that the automation of routine accounting practices streamlines repetitive processes, reduces errors, and enhances accuracy and efficiency in accounting practices. The study concluded that artificial intelligence positively influences the role of accountants at the University of Professional Studies, Accra. AI enables accountants to focus on higher value such as analysis and strategic advisory, thereby transforming the profession. The study recommended investment in the training and development of accountants with skills in AI technologies. Furthermore, UPSA should develop and enforce policies that address ethical issues such as data privacy, transparency, and bias in AI-driven processes.

Keywords: Artificial Intelligence, Accounting Practices

INTRODUCTION

The global accounting structure has received great attention because of the utilization of cutting-edge technology to deliver a greater caliber of quality set of financial statements. A growing body of literature is focusing on the challenges and opportunities of artificial intelligence in the accounting field (Sutrisno et al., 2023). When the levels and volumes of data begin to increase in businesses, financial records become complex, for firms to provide quality financial statements for users to make effective and informed decisions, and to stay competitive they need to leverage the use of technology-based tools to provide a quality set of financial data that provides data accurately, efficiently, and timely manner.

Artificial intelligence has revolutionized various industries, leading to a significant transformation of the workflow of accountants. Artificial intelligence algorithms such as blockchain, machine learning automation, and data analytics streamline the numerous traditional accounting tasks performed by accountants (Mohammad et al., 2020). The automation of repetitive tasks such as data entry, transactional recordings, bookkeeping, and other traditional accounting duties performed by accountants eliminates errors and omissions (Hasan, 2021). Kwarbai (2021), the advent of artificial intelligence has brought about the issue of whether artificial intelligence will create job displacement in the accounting field or shape and enhance the work of accountants. Artificial intelligence provides an enhancement to the work of accountants in terms of ensuring efficiency, and accuracy in performing accounting transactions. The role of accountants encompasses more than just the preparation of financial statements. Accountants, however, engage in providing strategic decisions, and policy directions and advising management on financing decisions (Emetaram & Uchime, 2021).

An era of technological transformation such as artificial intelligence embraced into accountants' profession and practices creates anxiety about accountants losing their current role. A study conducted by Leitner-Hanetseder

et al., (2021), indicates that the adoption and integration of AI into professions such as accountancy could cause a higher transformation due to automation. In developed countries, Moll and Yigitbasioglu (2019), opine that AI tends to transform and manage the basic duties done by accountants. The innovations and the adoption of technology might transform the accountancy profession. Hence, this study seeks to evaluate how Artificial Intelligence influences and shapes the work of accountants at the University of Professional Studies, Accra focusing on the accuracy and efficiency in accounting. Further to this, the accounting profession may want to know the strength of Artificial Intelligence in shaping the accountancy profession and reducing the financial malfeasance in Ghana.

The objective of the study is to:

- a. analysis how Artificial intelligence shapes accounting practices at the University of Professional Studies, Accra, focusing on accuracy and efficiency
- b. evaluate how artificial intelligence influences the role of accountants at the University of Professional Studies, Accra.

The purpose of this study is to assess the current application of artificial intelligence in the accounting practices of the University of Professional Studies, Accra, and how it influences accuracy and efficiency. The research further seeks to assess how artificial intelligence influences the role of accountants at the University of Professional Studies, Accra. The study additionally explores the training requirements and competencies that accountants require to effectively utilize artificial intelligence.

The study seeks to find answers to the following questions:

1. How does Artificial Intelligence shape the accuracy and efficiency of accounting processes at the University of Professional Studies?
2. How does Artificial Intelligence influence the role of accountants at the University of Professional Studies?

Accuracy in accounting practice refers to the precision and correctness of accounting processes facilitated by AI. In this context of the study, it examines how AI tools and systems improve the reliability of financial data, reduce errors in calculations, and ensure that financial reporting and transactions are handled without mistakes. This would involve evaluating how AI minimizes human error and ensures that the financial records are accurate and reflect the true financial position of the University.

Efficiency is the ability of AI to streamline accounting practices, enabling tasks to be completed more quickly and effectively. The study looks at how AI reduces the time and effort required for accounting activities, such as data entry, reconciliation, and reporting. It also examines how AI can automate routine tasks, allowing accountants to focus on more strategic functions, thereby increasing productivity and optimizing the use of resources.

LITERATURE REVIEW

Accounting involves the provision of financial and non-financial data to management, investors, shareholders stakeholders, and government for decision-making purposes. Accountants are experts that provide financial information and non-financial to managers for planning and guiding organizations decision (Alshehadeh et al., 2024). The main task of accountants is to prepare budgets, cost management, and prepare financial statements for both internal and external use for better decision-making. The role of accountants in businesses is extremely important as the accountants serve investors, managers, and other stakeholders with useful information (Nicholls, 2020) on the management of the business's financial and non-financial resources.

Financial information is crucial to investors as it reassures them that management is protecting their interests. However, unjustified financial losses can occur if accurate financial data are not provided to guide managers. As businesses grow, the amount of data increases, making accountants need to provide accurate and timely information a bit tedious and inconsistent. Artificial intelligence is expected to offer a tactical edge in achieving these goals (Lois et al., 2020).

Artificial Intelligence

Artificial Intelligence (AI) was first introduced by John McCarthy at Dartmouth College in the 1955-1956 Artificial Intelligence Conference. Since then, it has become a widely discussed topic, involving computer systems to perform tasks that typically require human intelligence (Zuiderveen Borgesius, 2018). AI is increasingly utilized in various business functions, including education, production, distribution, procurement, sales and marketing, accounting and finance, auditing, research and development, and human resource management.

Accounting systems are crucial components of any corporation, and AI offers advantages and disadvantages. As corporate processes become more complex, technologically based decision-making tools are becoming increasingly important (Rajakrishnan, 2023). Data mining, which involves examining large data sets to identify trends and connections, helps companies solve problems and make informed decisions (Elmes et al., 2020).

Machine learning, a subset of computer science, focuses on developing algorithms that identify patterns and relationships in large data sets through statistical analysis to produce accurate forecasts. It has applications in various fields such as biology, education, health, and finance (Elmes et al., 2020). Real-world applications of machine learning include analyzing relevant data to predict outcomes in similar situations.

The integration of machine learning with big data and blockchain is expected to significantly transform accounting systems by enabling automation and more effective data analysis. Major accounting firms are already using machine learning in audits to flag unusual transactions, automate manual tasks, and detect potential issues or errors.

Samoili et al., (2020) explain AI as a technique that enables software, computers, or robots under computer control to think intelligently like a human mind. It includes the ability to learn, acquire knowledge, judgment, comprehension, and decision-making (Samoili et al., 2020). AI is utilized in accounting by retaining human knowledge, imitating human behavior, and transforming it into instructions for specific jobs. The goal is to create computers with intelligent and human-like responses, such as judgment, relational comprehension, and distinct cognition ((Ng & Alarcon, 2020). AI is rapidly changing financial organizations, increasing operational efficiency and requiring less work. AI is like simulating the information processing and thinking functions of the human brain and can be done through structural simulations to replicate human thought (Ng & Alarcon, 2020).

Chu & Yong (2021), artificial intelligence enables accountants to provide real-time financial statements to aid investment decisions. According to (Lois et al., 2020), these technologies help support the agency hypothesis by mitigating the complexity of transmitting financial data and reports. The complexity of information has grown over the years, making it difficult for users to obtain high-quality financial reports. Artificial intelligence also reduces operational complexity, and information asymmetry as firm growth increases the chance of error (Castka et al., 2020).

Accounting Practices

Financial records are the backbone of any business that thrives to survive in a highly competitive business environment dominated by technology and innovations (Samoili et al., 2020). Accountants, who have received additional training from professional accounting bodies and are licensed to provide financial and accounting services, are closely monitored by accounting bodies to ensure ethical standards are followed (Jenkins et al., 2020).

Jenkins et al., (2020) opined some of the key skills required for a career in accounting include language, computer, interpersonal, leadership, analytical, multitasking, due diligence, and training. The accounting process, which includes the creation of financial reports, includes design, preparation, and handling of financial data or information.

Artificial intelligence (AI) is the integration of human-like (Rajakrishnan, 2023) intellect in machines, enabling them to make well-balanced decisions, analyze their environment, and take actions that maximize their chances

of achieving a goal. A computer program that can make objective decisions based on the circumstances at hand is known as artificial intelligence (AI), which enhances decision-making objectives. With a level of intelligence suitable for cognitive tasks, it is comparable to cognitive computing or cognitive technology (Roszkowska 2021). Many new software products and associated services are anticipated to use artificial intelligence (AI), which will make it easier to identify high-risk transactions, guarantee correct financial reporting, and stop significant financial statement misstatements. It is anticipated that the majority of newly created and developed software will contain it.

Artificial Intelligence in Modern Business Practice

Artificial intelligence (AI) plays a pivotal role in modern business environments, enhancing efficiency, fostering innovation, and providing a competitive edge. It has transformed business operations, especially in accounting and finance, by automating tasks and processing large datasets. AI has drastically cut down the time and resources required for accounting by automating routine tasks such as data entry and transaction categorization. Additionally, it has introduced predictive analytics and intelligent decision-making systems, enabling companies to make proactive and informed decisions. According to Alexander et al. (2020), AI-driven prediction models are utilized in finance to evaluate investments, assess risks, and plan financial strategies, offering exceptional accuracy and predictability.

Dash et al. (2019) note that AI has revolutionized customer experiences through chatbots, personalized recommendation engines, and automated customer support, providing effective, personalized, service, thereby boosting customer satisfaction and loyalty. AI has also fueled the growth of fintech companies in accounting and finance, delivering innovative financial services. However, issues related to data privacy, security, and ethics persist, requiring careful management to ensure regulatory compliance and maintain public trust. AI has also impacted the workforce by automating mundane tasks and altering the skill sets needed for collaboration and strategic advantage. As AI continues to evolve, it is expected to have an even greater impact on business processes, particularly in accounting and finance, presenting both opportunities and challenges.

Advancement of Technology in Accounting

Artificial intelligence (AI) is transforming accounting by automating repetitive tasks such as data entry, reconciliation, and report generation. This leads to quicker processing of large amounts of financial data, reducing the need for manual labor and time-consuming activities. AI can effectively identify patterns, anomalies, and trends in data through machine learning algorithms, streamlining processes and boosting productivity. AI-powered decision support systems offer real-time insights, facilitating prompt and informed decision-making. This results in cost savings, enhanced accuracy, and more efficient resource allocation. Accountants are responsible for preparing detailed financial documents, including balance sheets, income statements, and cash flow statements, to reflect an organization's financial health. As businesses grow more complex, technology-based decision aids are becoming increasingly vital. AI is automating data entry, analyzing data, and generating financial reports, providing an edge over human accountants (Imene & Imhanzenobe 2020). By automating data entry processes, detecting fraudulent submissions, and minimizing human involvement, AI technology can reduce errors. Understanding the accounting process is essential to recognizing AI's role in accounting. AI technology can enhance efficiency at every stage of the accounting process and management accounting, including risk assessment, data entry, trial balance extraction, and reporting. Each accounting process depends on internal control system variables. By serving as a bridge between output and input, AI technology can improve the effectiveness and accuracy of the accounting process.

Integration of AI into the Accounting Field

The introduction of AI came with the automation of routine tasks like data entry and reconciliation, increasing efficiency and reducing errors (Automated Processing). Also, AI tools began offering deeper insights through advanced analytics, aiding in more informed decision-making (enhanced analytics). In addition, AI's predictive capabilities improved risk assessment and management (Spring et al., 2022).

Bose et al., (2023) explained that artificial Intelligence (AI) in accounting is revolutionizing the way financial data is handled and analyzed. It uses natural language processing, machine learning, and other AI technologies to improve and expedite accounting procedures. Machine learning algorithms are used for financial forecasting, risk assessment, and fraud detection, while natural language processing (NLP) evaluates unstructured financial data. Robotic Process Automation (RPA) automates routine operations, freeing up human accountants for more important projects (Adeyelu et al., 2024). AI-driven analytics provide insights into financial trends, aiding in better resource allocation, risk management, and financial plan design. However, there are concerns about security, privacy, and ethical issues (Faccia et al., 2019). AI systems are becoming more prevalent, strict precautions are needed to protect confidential financial data and ensure compliance with regulations. Modern accountants now need to be proficient with AI tools, requiring them to be digitally savvy and have a solid foundation in accounting.

Adeyelu et al., (2024), artificial intelligence (AI), as cognitive computing, has a wide range of applications in various corporate functions, including production, distribution, procurement, sales, marketing, accounting, finance, audit, research, development, and human resource management. Accounting and auditing are also subject to the benefits and drawbacks of AI. To effectively utilize AI in accounting, it is crucial to examine its potential applications and its potential impact on accounting functions.

How Artificial Intelligence Fits into Accounting

Artificial Intelligence (AI), also known as Cognitive Technology or Cognitive Computing, has extensive applications across various business functions (Adeyelu et al., (2024). While not all aspects of AI are relevant to accounting, its significant impact has made it a crucial topic in business education and practice. AI affects key areas like production, distribution, procurement, sales and marketing, accounting and finance, auditing, research and development, and human resource management (Gonçalves et al., 2022). Given the importance of accounting, it is essential to explore the effect of AI on accounting practices and evaluate the readiness of accountants to accept the integration of AI into accounting practices.

Artificial Intelligence application in accounting and its effects

Integrating AI into accounting software and internal control systems is transforming the field by automating accounting, tax, and auditing tasks with high precision (Feghali al., 2022). Professionals still review the outcomes to ensure compliance. AI is anticipated to significantly impact the accounting profession, potentially reducing the number of accounting jobs. However, AI offers numerous advantages, such as time savings, enhanced accuracy, quicker data analysis, continuous accounting, and actionable insights. By automating various accounting tasks, AI allows professionals to concentrate on more strategic activities. Although AI might lead to job reductions, it improves the efficiency, accuracy, and overall quality of accounting practices, marking a significant advancement in the field (Hasan 2021). AI systems can fully automate tasks in bookkeeping, tax preparation, auditing, data entry, and complex calculations with speed and precision. This automation allows accountants to focus on strategic and analytical work. Accountants review AI-generated results to ensure accuracy and compliance, combining AI efficiency with human expertise to enhance the quality and reliability of financial reporting and decision-making (Alexander et al., 2020).

AI algorithms can efficiently analyze payment data, clear invoices, and generate new payments. By using preset criteria, AI quickly matches payments to invoices, reducing errors and keeping financial records up to date. This automation streamlines the payment process and allows accountants to focus on more complex tasks, improving overall financial management (Alexander et al., 2020).

AI systems significantly enhance financial reporting (Adeyelu et al., 2024) by generating highly accurate reports and securely storing them for easy access. They can compare reports from various companies, offering insights into industry trends. AI monitors a company's financial reports over time, identifying patterns and anomalies, ensuring compliance, and reducing human error. These tools provide real-time updates and analytics, integrating with other financial systems to support strategic planning and improve financial management. Overall, AI enhances financial data management's quality, accuracy, and efficiency.

AI systems excel at rapidly analyzing large volumes of historical data to uncover patterns and trends that might not be immediately apparent to human analysts. Using advanced algorithms and machine learning, AI can identify correlations, anomalies, and key insights to inform decision-making. AI can predict future trends, optimize inventory and marketing strategies, and detect changes in consumer behavior. Real-time data processing offers up-to-date insights, enabling swift responses to new opportunities or threats. This capability enhances an organization's ability to make informed decisions, leading to more effective and strategic business outcomes (Yi et al., 2023).

Effective measures to roll out AI in Accounting practices at the University of Professional Studies.

Accounting Professionals are more likely to adopt AI if they believe it will enhance their efficiency and accuracy. Jejenywa et al., (2024), AI can automate routine tasks, analyze large datasets, and provide insights that are difficult for humans to derive. This allows professionals to focus on more strategic activities and make better decisions. For accountants at the University of Professional Studies, Accra, AI can automate tasks like transaction categorization, fraud detection, and financial forecasting, saving time and reducing errors. AI also provides real-time insights and predictive analytics, helping accountants make proactive decisions and offer strategic advice. The usefulness of AI in improving work efficiency and accuracy is crucial for its adoption. When accountants at the University of Professional Studies, Accra see the tangible benefits of AI, they are more likely to integrate it into their workflows, leading to better performance and client satisfaction. According to Virvou (2023), user-friendly AI tools that require minimal training are more likely to be adopted by accountants. Providing adequate training and support helps overcome resistance to change, builds confidence, and promotes a positive attitude towards AI, encouraging its widespread acceptance. To successfully adopt AI in professional accountancy in Ghana, comprehensive training and education for accountants are crucial. They need to understand AI's capabilities and limitations (Strusani & Hounghonon 2019) to integrate these technologies effectively into their workflows, enhancing efficiency and accuracy. Accountants should learn about various AI tools and their applications, such as data analysis, automated bookkeeping, and predictive analytics. Training should emphasize collaboration between accountants and AI systems, showing how AI can complement their expertise. Hands-on training (Virvou 2023), helps accountants apply AI tools to real-world scenarios, improving processes like financial reporting and auditing. Ongoing education is essential to keep up with AI advancements and best practices. Training should cover the ethical use of AI, including data privacy and security. Training education can help accountants at the University of Professional Studies, Accra maximize AI benefits, leading to more efficient and effective practices.

Artificial Intelligence has steadily made its way (Strusani & Hounghonon 2019) into the accounting sector, bringing about significant changes in how financial data is processed and analyzed. AI-powered tools are now capable of handling tasks such as transaction coding, bank reconciliations, and even fraud detection with remarkable efficiency and accuracy. Software solutions like QuickBooks, Xero, and Zoho Books are integrating AI to offer smarter, faster accounting processes.

The Reality of AI in the Workplace

However, the reality is more nuanced. While AI excels at automating repetitive tasks, it doesn't possess the human judgment and expertise necessary for complex decision-making. Instead of replacing accountants, AI is poised to augment their roles, taking over mundane tasks and allowing professionals to focus on more strategic aspects like financial consultancy and business planning (Korteling et al., 2021).

Adapting to Change

To remain relevant in this AI-driven landscape, accountants must adapt. Embracing new technologies, learning AI-related skills, and focusing on areas where human judgment is irreplaceable are key strategies for modern accountants. Educational institutions and professional bodies are increasingly offering courses in AI and data analytics to help accountants improve their skills. According to Adhariani and De Villiers (2019), the American Institute of CPAs (AICPA) has introduced various resources and training programs to help professionals integrate AI into their skill sets.

The Future Role of Accountants

The future role of accountants is under speculation due to the rise of automation. Chen et al., (2022) suggest that artificial intelligence (AI) could lead to a self-service model for accounting tasks. Eisikovits et al., (2024) recommend that accountants focus on tasks that cannot be performed with AI. Accountants should focus on making strategic decisions and consultancy that can not be performed by artificial intelligence. While the demand for accountants will continue, their roles may change significantly (Stancheva-Todorova 2018). Farahani & Ghasemi (2024) warn that artificial intelligence could threaten both routine and complex tasks, but Jarrahi (2018), believes humans cannot be fully replaced in analytical roles. Despite general satisfaction with artificial intelligence (Loi & Spielkamp 2021), there is concern about fully delegating tasks to AI. Accountants will need to stay updated on skills to handle technological advancements (Attard 2023). In the next decade, the profession is expected to become more specialized, with a focus on consulting and integrating automation (Susskind & Susskind 2022). This shift may cause resistance due to fear of change.

Theoretical Review

This paper is anchored on the Technology Acceptance Model (TAM), the most widely used framework for examining how users accept and adopt new technologies and shape operations.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Fred Davis in 1989, explains and predicts users' behaviors toward new technology, focusing on their acceptance and beliefs about information technology. It identifies two main factors influencing attitudes: perceived usefulness the belief that a system improves job performance and perceived ease of use the belief that using the system is effortless.

Abdullah et al., (2016), expanded TAM by adding factors to perceived usefulness, including subjective norms social pressure to use technology, voluntariness whether adoption is mandatory, and the image of social status gained from using technology. They also added job relevance applicability to one's job, output quality performance of tasks, and result from demonstrability clarity of the relationship between usage and results. TAM is useful for understanding technology attitudes, such as accountants' views on automated accounting, but it does not define the concept of attitude itself.

Yucel and Gulbahar (2013), critique the Technology Acceptance Model (TAM) for its limited scope, highlighting that it misses significant factors influencing technology use. They suggest that TAM should be part of a broader model that includes variables related to human and social change processes and innovation adoption.

METHODOLOGY

Research Methodology refers to the research strategies that explain the principles of epistemology and ontology that guide research (Crawley 2019) and the principles, practices, and procedures that shape the research. This research adopted a qualitative approach, which is associated with discovery, process orientation, high validity, and a deeper understanding of the study area within its unique context.

Research Design and Data Collection

This study adopted the cross-sectional research design. This design in qualitative research allows the investigators or researchers to explore in depth how artificial intelligence impacts the work of accountants at the University of Professional Studies, Accra and provides a rich insight. This study employs the primary sources of data collection. This implies that data was collected through interviews with the study participants.

A pilot study was conducted using a semi-structured questionnaire for data collection to assess the feasibility and effectiveness of the research instruments in gathering relevant information. The semi-structured questionnaire was designed to collect qualitative data from participants, allowing flexibility in response while ensuring that key themes and topic were consistently covered. The study pilot involved a small and similar sample of participants who were representative of the target population. The primary aim was to test the

questions' clarity, identify ambiguities, and evaluate the overall flow of the questionnaire. Feedback from participants was gathered to determine if any modifications were necessary to improve the wording, structure, or sequence of the questions. The pilot study helps the researchers to assess the time required to complete the questionnaire and the overall ease of understanding for respondents. Based on the findings from the pilot, adjustments were made to refine the questionnaire, ensuring that it effectively captured the necessary data for the main study.

Population of study and the sampling Technique

The population for this study is comprised of all the accountants with the University of Professional Studies, Accra finance department. A study population is a group of elements or individuals, who share similar characteristics. These similar characteristics can be the location, age, interest, and gender. The selection of the study population is that it constitutes individuals or elements that are homogeneous. Using the purposive sampling technique which allows the researchers to get in touch with the respondents to gather responses leads to better insight and more precise results from the target respondents, the researchers were able to encounter twenty (20) accounting staff within the finance department of the University of Professional Studies, Accra. Out of the twenty (20) accountants encountered from the finance department of the University of Professional Studies, Accra, only five (5) accepted to participate in the study. The remaining fifteen (15) cited busy schedules and timelines as the reason for declining to participate in the study. In all five (5) respondents were used for the study comprising three (3) males and two (2) females. These form the sample frame to which interviews and observations were conducted. The interviews were conducted using semi-structured questionnaires to obtain valid and accurate data for the study. The table below shows the demography of the study participants.

Participant	Accountant/ Respondent 1	Accountant/ Respondent 2	Accountant/ Respondent 3	Accountant/ Respondent 4	Accountant/ Respondent 5
Rank	Senior Manager	Lower level	Meddle level manager	Lower-level manager	Senior Manager
Experience	15 years	3 years	10 years	2 years	12 years
Responsibilities	Supervisory role	Assist in meddling managers	Implement accounting schedules	Assist accounting process	Supervisory role
Professional Qualification	ICAG	None	ICAG	None	ACCA
Level of Education	BSc & MBA Accounting,	BSc Accounting	BSc Accounting	BSc Finance	BSc & MBA Finance
Gender	Male	Male	Female	Male	Female

Data interpretation and analysis

The study focuses on making meaning of the gathered data, which is organized into sections based on themes and textual language, which are recurring terms, expressions, or concepts used by interviewees. The data is organized into sections based on the interview guide and research model. The terms interviewee, "accountant", and informants are used interchangeably to describe participants. The background data is examined first, followed by sections on IT tool proficiency, AI interaction with accounting practices and processes, and ethical issues related to AI. The data collected from the interviews was analysed using NVIVO software to analyze qualitative data.

RESULTS AND DISCUSSIONS

The findings derived from the data analysis provide a comprehensive discussion of the results concerning the study's research objectives. The results are systematically outlined and supported by detailed discussions to provide context and meaning, ensuring a clear understanding of the study's outcomes. Instead of tables, the findings are presented descriptively, emphasizing qualitative insights and key thematic analyses to address the research objectives effectively.

Response Rate

The response rate for this study was 25%, with 5 out of the 20 sampled respondents participating. Despite the lower participation rate, the respondents, comprising three males and two females from the finance department of the University of Professional Studies, Accra, provided valuable insights into the influence of artificial intelligence on accounting practices. While most of the sampled participants cited busy schedules and time constraints as reasons for non-participation, the purposive sampling ensured that the data collected was still relevant and representative of the target group. This response rate, although limited, offers a meaningful foundation for analyzing the impact of AI on accounting accuracy, efficiency, and the evolving roles of accountants within the institution.

DISCUSSION OF THE RESULTS

Analyze how Artificial Intelligence shapes accounting practices at the University of Professional Studies, Accra, focusing on accuracy and efficiency

Automation of Routine Tasks

The automation of routine tasks through Artificial Intelligence (AI) has transformed accounting practices by streamlining repetitive processes such as invoice processing and payroll management. Respondent 1 noted that tasks that previously required significant time are now handled more efficiently, enabling accountants to focus on strategic roles. This observation is supported by Hasan (2021), who emphasized that AI-powered systems, including robotic process automation (RPA), reduce human involvement in repetitive tasks, enhancing operational efficiency. Respondent 2 further highlighted AI's ability to minimize data entry errors, a point corroborated by Bose et al. (2023), who demonstrated that AI-driven tools ensure high accuracy by automating routine accounting tasks and mitigating human error. Adeyelu et al. (2024) also reported that AI's automation capabilities improve speed, accuracy, and reliability in financial operations. These findings align with the Technology Acceptance Model (TAM) by Davis (1989), which posits that technology adoption is influenced by its perceived usefulness and ease of use. In this context, AI's ability to streamline workflows and improve precision illustrates its value as an indispensable tool in modern accounting, fostering a transition from manual to automated processes and enhancing overall efficiency. The following responses from the respondents provide key insights:

"AI has automated tasks like invoice processing and payroll management, which used to take up a significant portion of our time." (Respondent 1)

"With AI, data entry errors have been drastically reduced because the system handles repetitive tasks seamlessly." (Respondent 2)

Enhanced Accuracy in Financial Data

The integration of Artificial Intelligence (AI) tools in accounting has dramatically improved the accuracy of financial data by automating processes such as error detection and anomaly identification. Respondent 3 highlighted AI's role in ensuring precision in financial records through tools designed for error detection and financial reconciliations, a perspective supported by Castka et al. (2020), who found that AI-powered systems effectively identify discrepancies and promote consistency in financial reporting. Respondent 4 emphasized the capability of automated data processing systems to flag anomalies instantly, reducing information asymmetry

and operational complexity, as corroborated by Lois et al. (2020). Chu & Yong (2021) further demonstrated that AI facilitates real-time monitoring and reporting, empowering accountants to produce accurate financial statements efficiently. These findings align with the Technology Acceptance Model (TAM) by Davis (1989), which suggests that the perceived usefulness of technology, particularly its ability to enhance job performance, significantly influences its adoption. Through the lens of TAM, AI's ability to enhance data accuracy and reliability is a key driver of its integration into accounting practices, transforming financial management by supporting informed and timely decision-making. The following responses from the respondents provide key insights:

"We use AI tools for error detection and financial reconciliations, which ensure accuracy in our records."
(Respondent 3)

"The automated data processing systems flag anomalies instantly, making our financial reports more reliable."
(Respondent 4)

Efficiency in Financial Operations

Artificial Intelligence (AI) has become a critical enabler of efficiency in financial operations by streamlining routine processes and creating opportunities for strategic focus. Respondent 5 highlighted how AI drastically reduces the time required for budgeting and financial reporting, enabling accountants to concentrate on strategic projects. This observation is supported by Imene & Imhanzenobe (2020), who demonstrated that AI-driven systems significantly reduce processing times for tasks like financial data aggregation and analysis. Respondent 1 also emphasized AI's ability to process large volumes of financial data quickly, a benefit corroborated by Alexander et al. (2020), who noted that AI tools optimize data processing and alleviate workflow bottlenecks. Chu & Yong (2021) further underscored AI's role in providing real-time insights, facilitating timely decision-making and efficient resource allocation. These findings are consistent with the Technology Acceptance Model (TAM) by Davis (1989), which posits that the perceived usefulness of a technology, particularly its ability to enhance efficiency and productivity, drives its adoption. Applying TAM, the evidence illustrates how AI enhances operational effectiveness in financial management, fostering a more streamlined and productive approach to accounting practices. The following responses from the respondents provide key insights:

"AI has significantly cut down the time we spend on budgeting and financial reporting, allowing us to focus on strategic projects." **(Respondent 5)**

"The efficiency gains are evident in how quickly we can process large volumes of financial data." **(Respondent 1)**

Predictive Analytics and Decision Support

The adoption of Artificial Intelligence (AI) in accounting has transformed decision-making processes by leveraging predictive analytics to forecast financial trends and enhance strategic planning. Respondent 2 highlighted how AI systems generate insights that guide decision-making, a finding supported by Bose et al. (2023), who emphasized AI's ability to improve financial forecasting accuracy and risk assessment. Respondent 3 underscored AI's role in optimizing resource allocation and enabling proactive financial planning, consistent with Yi et al. (2023), who noted that AI-driven predictive analytics identifies patterns and trends to enhance resource utilization and strategy formulation. Chu & Yong (2021) further demonstrated that AI predictive models provide real-time insights, improving investment planning and financial decision-making. These findings are underpinned by the Technology Acceptance Model (TAM) by Davis (1989), which posits that the perceived usefulness of a technology significantly influences its adoption and effectiveness. By enhancing the accuracy and efficiency of predictive analytics, AI exemplifies the TAM principle of improving job performance, illustrating its pivotal role in transforming financial management practices and empowering organizations to make data-driven, forward-looking decisions. The following responses from the respondents provide key insights:

"AI systems help us predict financial trends and provide insights that guide decision-making." **(Respondent 2)**

"By using predictive analytics, we can better allocate resources and plan for the future." (Respondent 3)

Evaluate how Artificial Intelligence influences the role of accountants at the University of Professional Studies, Accra

Transformation of Roles

Artificial Intelligence (AI) has profoundly transformed the roles of accountants, shifting their focus from routine, manual tasks to strategic and advisory functions. Respondent 4 emphasized that AI enables accountants to engage in higher-value activities such as financial analysis and management advising, a shift that underscores the evolution of the profession towards more strategic contributions. Hasan (2021) supports this view, noting that AI eliminates repetitive tasks, freeing accountants to focus on critical thinking and strategic planning. Similarly, Respondent 1 highlighted an increased involvement in decision-making processes, a perspective reinforced by Jarrahi (2018), who argued that while AI automates routine functions, it amplifies the need for human expertise in interpreting insights and developing strategies. Moll and Yigitbasioglu (2019) further corroborate this, demonstrating that AI adoption redefines accountants' roles from data processors to strategic partners in organizational decision-making. These findings are aligned with the Technology Acceptance Model (TAM) by Davis (1989), which posits that technology adoption is driven by its perceived usefulness and ability to enhance job performance. Applying TAM to these findings highlights how AI reshapes the accounting profession, fostering a synergistic relationship between human expertise and technological innovation to drive organizational efficiency and growth. The following responses from the respondents provide key insights:

"AI has shifted our focus from routine tasks to more strategic activities like financial analysis and advising management." (Respondent 4)

"We are now more involved in decision-making processes rather than just preparing reports." (Respondent 1)

Upskilling and Adaptability

The integration of Artificial Intelligence (AI) in accounting has created a demand for significant upskilling and adaptability among professionals to effectively utilize its potential. Respondent 5 emphasized the need to acquire new skills such as data analytics and basic programming to remain relevant in an AI-driven environment. This aligns with Jenkins et al. (2020), who identified technical expertise in AI tools as essential for modern accountants. Respondent 2 further highlighted the importance of continuous learning, particularly in understanding machine learning systems, which resonates with Strusani and Hounghonon (2019), who noted that the rapid evolution of AI necessitates ongoing education and training. These perspectives are supported by the Technology Acceptance Model (TAM) by Davis (1989), which underscores that perceived usefulness and ease of use of technology influence users' willingness to embrace it. Virvou (2023) added that hands-on experience with AI tools enhances competence and confidence, facilitating smoother integration into workflows. By combining the TAM framework with these findings, it is evident that upskilling in data science, programming, and AI systems is vital to accountants' adaptability, enabling them to meet the challenges of a dynamic technological landscape while ensuring they remain competitive and effective in their roles. The following responses from the respondents provide key insights:

"To work effectively with AI, we've had to learn new skills like data analytics and basic programming." (Respondent 5)

"Adapting to AI requires continuous learning, especially in understanding how machine learning systems operate." (Respondent 2)

Job Security and Ethical Considerations

The rise of Artificial Intelligence (AI) in accounting has generated significant discussions regarding job security and ethical implications, with an emphasis on its complementary role alongside human expertise. Respondent 3 highlighted concerns about job displacement but noted that AI primarily enhances accountants' roles by automating repetitive tasks. This perspective aligns with the Technology Acceptance Model (TAM) by Davis

(1989), which suggests that users are more likely to accept technology when they perceive it as useful and as an enabler rather than a disruptor. Jarrahi (2018) supports this view, arguing that while AI effectively handles routine functions, human judgment remains critical for complex decision-making and strategic roles. Respondent 4 emphasized ethical concerns, particularly regarding data privacy and bias in AI outputs, a sentiment echoed by Faccia et al. (2019), who stressed the necessity for transparent and accountable AI systems to prevent risks such as privacy breaches and algorithmic discrimination. Strusani and Hounghonon (2019) further highlighted the importance of adhering to data protection regulations and ensuring equitable access to AI tools to promote ethical adoption. Guided by the TAM framework, these findings underscore the need for organizations to address job security and ethical challenges through proactive governance, workforce upskilling, and a balanced approach to AI integration that maximizes its benefits while safeguarding human expertise and ethical standards. The following responses from the respondents provide key insights:

"There's some anxiety about AI replacing jobs, but I believe it complements our work rather than replacing us."
(Respondent 3)

"Ethical considerations, like ensuring data privacy and avoiding biases in AI outputs, are critical." **(Respondent 4)**

Collaboration with AI Systems

The integration of Artificial Intelligence (AI) in accounting underscores a collaborative relationship where machine efficiency enhances human expertise, leading to improved financial decision-making. Respondent 1 noted that while AI provides valuable insights, human judgment is indispensable for interpreting and applying these findings effectively. This perspective aligns with the Technology Acceptance Model (TAM) by Davis (1989), which emphasizes that the perceived usefulness and ease of use of technology, combined with user interaction, drive adoption and optimal utilization. Respondent 5 further highlighted that collaboration with AI tools has enhanced the quality of financial decisions, merging machine precision with human intuition. This synergy is supported by Jarrahi (2018), who argued that AI systems excel at data processing but require human cognition for context and strategic application. Hasan (2021) also demonstrated that AI-driven analytics, when complemented by human oversight, minimizes errors and optimizes financial strategies. The TAM framework supports these findings by illustrating how accountants' acceptance and effective integration of AI tools amplify their roles, enabling a partnership that fosters accuracy, efficiency, and innovation in accounting practices. The following responses from the respondents provide key insights:

"AI provides insights, but we still rely on human judgment to interpret and apply these insights effectively."
(Respondent 1)

"Our collaboration with AI tools has enhanced the quality of financial decisions, as we combine machine efficiency with human expertise." **(Respondent 5)**

Implication for Practice

The findings of this study highlight critical implications for accounting practice at the University of Professional Studies, Accra, particularly in leveraging Artificial Intelligence (AI) to enhance efficiency, accuracy, and the strategic roles of accountants. The automation of routine tasks, such as invoice processing and payroll management, allows accountants to focus on higher-value activities, aligning with Hasan's (2021) assertion that AI-driven systems reduce repetitive workload and enhance operational efficiency. Additionally, the integration of AI for error detection and anomaly identification improves the accuracy of financial records, as supported by Lois et al. (2020), who emphasized the reliability AI brings to financial reporting. This increased accuracy enables accountants to produce timely and dependable financial statements, supporting informed decision-making (Chu & Yong, 2021). The shift in roles, from manual tasks to strategic advisory functions, requires accountants to acquire new skills in data analytics, programming, and machine learning (Jenkins et al., 2020; Virvou, 2023), which is consistent with the Technology Acceptance Model (TAM) by Davis (1989), emphasizing that perceived usefulness and ease of use are critical to adopting technology. Moreover, addressing ethical considerations such as data privacy and bias in AI outputs remains essential to ensure the responsible use of AI

tools (Faccia et al., 2019). These findings suggest that organizations should invest in training and capacity building to enable accountants to adapt to AI technologies while maintaining professional standards and ethical practices. The adoption of AI, therefore, not only optimizes accounting operations but also transforms the profession, underscoring its pivotal role in advancing modern financial management practices.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the study findings, conclusions derived from the analysis, and recommendations for optimizing the integration of Artificial Intelligence (AI) into accounting practices at the University of Professional Studies, Accra (UPSA). The study explored how AI shapes accounting practices with a focus on accuracy and efficiency and evaluated its influence on the evolving roles of accountants. The findings underscore the transformative potential of AI in enhancing operational processes and strategic contributions in accounting.

Summary Findings

Analysis of How Artificial Intelligence Shapes Accounting Practices at UPSA, Focusing on Accuracy and Efficiency

The study found that AI significantly improves accounting practices by automating routine tasks like payroll management and invoice processing, reducing manual workload, and enabling accountants to focus on strategic functions. AI tools enhance the accuracy of financial records by minimizing data entry errors and providing real-time error detection and anomaly identification. Additionally, the use of AI for predictive analytics was identified as a key driver for optimizing resource allocation and proactive financial planning, further strengthening operational efficiency in accounting processes.

Evaluation of How Artificial Intelligence Influences the Role of Accountants at UPSA

AI has reshaped the roles of accountants by shifting their focus from repetitive tasks to higher-value functions such as financial analysis and strategic advisory. The study highlighted the increased involvement of accountants in decision-making processes, reflecting the evolving demands of the profession. It also emphasized the importance of upskilling in areas like data analytics, programming, and AI system management to remain competitive and effectively utilize AI tools. Ethical considerations, such as ensuring data privacy and preventing biases in AI outputs, were also underscored as critical components of responsible AI integration in accounting.

Conclusion

The study concludes that the integration of Artificial Intelligence (AI) into accounting practices at the University of Professional Studies, Accra, has the potential to significantly enhance efficiency, accuracy, and strategic decision-making. By automating routine tasks and providing advanced analytics, AI enables accountants to focus on higher-value roles such as financial analysis and strategic advisory, thereby transforming the profession. However, this transformation demands continuous professional development to address skill gaps and ensure effective utilization of AI tools. Ethical considerations, such as data privacy, transparency, and bias prevention, are critical to fostering responsible AI adoption. The findings affirm that AI is not a replacement for accountants but a complementary tool that amplifies their capabilities, underscoring its pivotal role in driving innovation and improving financial management in modern accounting practices.

Recommendations

Invest in Training and Development

UPSA should prioritize training programs that equip accountants with skills in AI technologies, data analytics, and programming. Regular workshops and professional certifications will help bridge skill gaps and enhance adaptability.

Establish Ethical Guidelines for AI Usage

Develop and enforce policies that address ethical issues such as data privacy, transparency, and bias in AI-driven processes. Periodic reviews and audits should ensure compliance with established standards.

Enhance Technological Infrastructure

Implement scalable and user-friendly AI tools to facilitate seamless integration into existing accounting workflows. Partnering with technology providers can support this transition and ensure access to advanced solutions.

Encourage AI-Human Collaboration

Promote a collaborative dynamic where accountants leverage AI insights while retaining decision-making authority. This approach ensures that human expertise remains central to accounting processes.

Monitor and Evaluate AI Implementation

Regularly assess the effectiveness and impact of AI systems in accounting to identify areas for improvement and optimize their utilization. Feedback loops should be established to ensure continuous refinement of AI practices.

By adopting these recommendations, UPSA can harness the transformative potential of AI, enhancing the efficiency, accuracy, and strategic contributions of its accounting practices and professionals.

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